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Periphrastic Perfects in the Coptic Dialects*

A Case Study in Grammaticalization

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Abstract

A completive construction ('he finished hearing') undergoes grammaticalization, with several identifiably distinct stages, within the Coptic dialects, into periphrastic Perfect or 'Anterior' ⲁⲫⲟⲩⲱ ⲉϥⲥⲱⲧⲡ *afouô efsôtp* 'he has/had heard.' At the most advanced stage of grammaticalization, the construction is in fact an emergent member of the Auxiliary Construction ('Tripartite Conjugation'). It is proposed that the motivation for the formal changes observed are to be found in the functional change the construction undergoes, among them the loss of the control of the subject over the process encoded by the lexical verb; this appears to be a feature specific to perfects grammaticalized from 'finish' source constructions (as opposed to those with resultative source constructions).

1. Introduction

Over the course of Egyptian diachrony, one witnesses the cyclical neutralization and innovation of the opposition between PRETERITE and PERFECT. This cycle, a typologically well-established one, is in Egyptian especially prominent in the affirmative subsystem, which is much less diachronically stable than the negative subsystem. In this article, I will discuss the latest phases of this cycle, namely, the grammaticalization of periphrastic Perfects in the Coptic dialects.

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2. Periphrastic Perfects in the (non-Bohairic) Coptic dialects

The opposition in Demotic between Preterite *stp-f* ('he chose') and Perfect *wꜣḥ-f-stp* ('he has/had chosen') is for the most part neutralized in the Coptic dialects. While most dialects apparently generalized the periphrastic alternant of *stp-f*, comprising a finite past form of the verb *ỉrỉ* 'to do' governing an infinitive

[1] *ỉr-f-stp*[1] (> Coptic ⲁϥⲥⲱⲧⲡ *afsôtp*)
do\PST.AFF-3SG.M-choose\INF
'He chose'

as a past tense, other dialects, such as Oxyrhynchitic, generalized the Perfect[2]

[2] *wꜣḥ-f-stp*[3] (> e.g., Coptic ϧⲁϥⲥⲟⲧⲡ *hafsotp*)
AUX\PRF.AFF[finish\PST.AFF]-3SG.M-choose\INF
'He has/had (already) chosen.'

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1 I gloss the 'actor expression' as pronominal inflection rather than clitics, and consider the entire construction with pronominal inflection as a bound group. In this respect, constructions with a nominal 'actor' differ juncturally: the link between the auxiliary and the 'actor' is considered to be inflection rather than clisis, while there is an open juncture between the 'actor' and the verbal lexeme (viz., infinitive); as such, it is not glossed with a hyphen. That these two related constructions have different junctural properties is unsurprising, and one finds a comparable situation in earlier Egyptian (Gardiner 1975: §39, §66).

2 The diachronic picture is more complicated than this. There is little reason to suppose that ⲁϥ- dialects reflect a pre-Coptic stage in which *ỉr-f-stp* superseded all *stp-f* forms, nor an abrupt saltation from Demotic to Coptic. Rather, it seems more likely, given the evidence of late Demotic, that both *ỉr-f-stp* and *wꜣḥ-f-stp* merged, due to a combination of morphonological and functional considerations, namely, the loss of initial ϧ on the one hand and the functional neutralization between perfect and preterite on the other. This is my understanding of Polotsky's observation: 'The affirmative counterpart of ⲙⲡⲁⲧⲥⲱⲧⲙ (*mpatfsôtm*) may have been ϧⲁⲥⲱⲧⲙ (*hafsôtm*), which in most dialects was levelled under ⲁⲥⲱⲧⲙ' (1960: 393 n. 1). It is highly likely that *the functional neutralization preceded and facilitated – if not motivated – the morphonological change*. A similar view is advocated in Reintges (forthcoming a). It should be noted that on general principles (the cross-linguistic frequency of perfects grammaticalizing into pasts, the frequency of marked forms becoming the unmarked member of their paradigms, the tendency of *hic-et-nunc-et-ego* constructions to undergo context expansion and generalization, *inter alia*), and on the evidence of late Demotic, especially the Narmuthis ostraka, it is most likely that the perfect *wꜣḥ-f-stp* was in fact the form generalized for the expression of an unmarked past, subsuming the perfect, with *ỉr-f-stp* actually a subsidiary contributor to Coptic ⲁϥⲥⲱⲧⲡ *afsôtp*. This is supported by the facts adduced in Quack (2006: 204-205) regarding the frequency and distribution of *ỉr-f-stp* and *wꜣḥ-f-stp* in late Demotic, as well as the variation within and between 'early Coptic' corpora discussed in Funk (1981) and Richter (1997/1998). In other words, the basic observation of 'levelling' is to be kept, but it may be that the direction is contrary to that previously supposed. This suggestion is of course tentative, pending closer study of late Demotic and early Coptic texts. It should further be observed that the various Coptic Pasts need not have had the same origin, and pre-Coptic dialects are likely to be involved in any realistic reconstruction. Moreover, as always, the appearance of diachronic continuity or discontinuity between any two phases of the written language is contingent on the corpora extant.

3 With the variant construction *wꜣḥ ỉw-f stp* (Johnson 1976: 204-205). Stéphane Polis (p.c. 12/2009) has pointed out to me that this is not merely an orthographical variant of *wꜣḥ-f-stp* but could rather be considered as *wꜣḥ* + 'thematized' or 'argumental' *ỉw*-clause, similar to that found in constructions such as *nfr* + *ỉw*-clause. See Shisha-Halevy (1978), Polis (2009).

In yet other dialects – mostly 'early' varieties[4] – one finds synchronic variation; however, it seems that in few if any varieties of Coptic the functional opposition between Preterite and Perfect is marked by a formal opposition between auxiliaries ⲁ- *a-* and ϩⲁ- *ha-* (Funk 1981, Richter 1997/1998).[5] As such, the term 'perfect' is a misnomer for Coptic ⲁϥⲥⲱⲧⲡ *afsôtp* or any variant of the unmarked past, and should be replaced by 'preterite,' or simply 'past' where no opposition obtains.[6] A modified scheme of the usual presentation of these subsystems is:

TABLE 1: THE PERFECT/PRETERITE SUBSYSTEM

	AFfiRMATIVE	NEGATIVE
PRETERITE	(ϩ)ⲁ- (*h)a-*	ⲙⲡ(ⲉ)- *mp(e)-*
PERFECT	-	ⲙⲡⲁⲧ(ⲉ)- *mpat(e)-*

Within many Coptic varieties, the lexical verb ⲟⲩⲱ *ouô* 'to finish'[7] is grammaticalized into a COMPLETIVE source construction, 'to finish doing X' when in construction with an imperfective converb[8] ('Circumstantial Present'). Synchronically, this seems to be limited to the 'clause conjugations' and their functional equivalents in some corpora, e.g., Shenoutean Sahidic.[9]

[3] ⲁϥⲟⲩⲱ ⲉϥⲥⲱⲧⲡ
a-f-ouô e-f-sôtp
AUX\PST.AFF-3SG.M-finish\INF CVB.IPFV-3SG.M-choose\CVB.DYN
'He finished choosing...'

This construction is in the process of being grammaticalized into a periphrastic perfect:

[4] ⲁϥⲟⲩⲱ ⲉϥⲥⲱⲧⲡ
a-f-ouô e-f-sôtp
AUX\PRF.AFF:-3SG.M-:PRF.AFF :PRF.AFF-3SG.M-choose\INF
'He has/had (already) chosen...'[10]

4 See Funk (1988) for this notion.
5 Richter (1997/1998) provides a rich and fascinating review of the various analyses of the Demotic and Coptic material, dating back to the 19th century, as well as an excellent account of the extant Coptic data. For another view, see Johnson (1976: 210-214). One must also take into account the wealth of data provided by the Kellis (*L**) corpus, for which see Funk (1999) and Shisha-Halevy (2002).
6 This practice is adopted in, e.g., Shisha-Halevy (2007) and Grossman (2009a).
7 This is the infinitive of the same verb that was grammaticalized as an auxiliary in the Demotic Perfect mentioned above, namely, *wꜣḥ*.
8 Grossman (2007a). The term 'imperfective' is used tentatively, and bears further discussion, which is however beyond the scope of the present article. For important discussions of terminology and conceptualization of tense and aspect in Egyptian, see Winand (2006) and Werning (2008).
9 Shisha-Halevy (1986: 119, f. 43).
10 The colon (:) here indicates that ⲁ- ⲟⲩⲱ ⲉ- *a- ouô e-* are all discontinuous constituents of an emergent affirmative-only Perfect auxiliary; see Di Biase-Dyson, Kammerzell & Werning (2009). The

The Perfect probably grammaticalized from the Completive construction, rather than directly from the kind of construction found in examples 5-6 below.[11] Both the affirmative and negative Perfects are marked with respect to the past (ϩ)ⲁ-/ⲙⲡ(ⲉ)- *(h)a-/mp(e)-*.

'Finish' + ø/noun phrase

[5] ⲛⲧⲉⲣⲉϥⲟⲩⲱ ⲡⲉϫⲉ ⲟⲩⲁ ⲛⲁϥ ⲛⲛⲉϥⲙⲁⲑⲏⲧⲏⲥ (Sahidic [S], Lk 11:1)[12]
ntere-f-ouô pece-oua na-f n-nef-mathêtês
CVB.PFV-3SG.M-finish\INF QUOT-one to-3SG.M of-ART.POSS:PL:3SG.M-disciple
'When he had finished, one of his disciples said to him...'

[6] ⲁϣⲱⲡⲉ ⲇⲉ ⲛⲧⲉⲣⲓⲥ ⲟⲩⲱ ⲛⲛⲉⲓϣⲁϫⲉ
a-s-šôpe de ntere-i(êsous)s ouô n-nei-šace
AUX\PST.AFF-3SG.F-become\INF PTCL CVB.PFV-J(esu)s finish\INF OBJ-ART.DEM:PL-word
'And it happened when Jesus finished these words
ⲁⲩⲣⲱⲡⲣⲉ ⲛⲥⲓⲙⲓⲛⲏϣⲉ ⲉϩⲣⲁⲓ ⲉϫⲛⲧⲉϥⲥⲃⲱ (Sahidic [S], Mt 7:28)
a-u-r-špêre nk^{y}i-m-mêêše ehrai ecn-tef-sbô
AUX\PST.AFF-3PL-do\INF-wonder APP-ART:PL-multitude up on-POSS.ART:SG:F:3SG.M-teaching
the multitudes were amazed at his teaching.'

process of emergence will be discussed in detail below. However, I would like to make my intention clear, in case the reader has reservations about such extravagantly discontinuous constituents. In a 'top-down' or construction grammar point of view, constructions are linguistic signs (conventionalized form-function pairings) and constituents are in a sense epiphenomenal, since one can segment a signifier but not a signified. Of course, some constructional meanings are more compositional than others, viz., one can identify some parts of a constructional signified with some parts of a constructional signifier. However, the more grammaticalized (and therefore, the more non-compositional) the construction, the less point there is in uniquely associating a specific segment of the signifier with a specific chunk of the signified. The need for a constructional approach was made clear by Trubetzkoy (1939) and Martinet (1949), and this approach has a long history in Egyptian linguistics; it has recently become influential in other arenas as well (e.g., Croft 2001 for a particular variety of 'Construction Grammar'). The point to made here is that the PERFECT meaning of this construction cannot be attributed to ⲟⲩⲱ *ouô* 'to finish,' nor to any other segment of the signifier, just as segmenting the signifier [*k^{h}æt*] into three idealized segments *k^{h}+æ+t* will not give three thirds of a household feline (or even the concept thereof). The present 'discontinuous' analysis and the corresponding glosses are only a way to indicate this explicitly, if somewhat programmatically; normally, there seems to be a preference for glossing grammatical constructions in an 'etymological' way which is here eschewed for the reasons noted above.

11 This earliest mention of this analysis, as far as I know, is in Shisha-Halevy (1972). The grammaticalization of perfects ('ANTERIORS') from completive constructions is well known in typological studies, and appears to be one of the most common paths outside of Western Europe (e.g., Bybee et al. 1994, Dahl & Vellupillai 2008). A case close to the one presented here is that of Swahili COMPLETIVE > PERFECT discussed in Heine & Reh (1984: 102).

12 All examples from the Sahidic New Testament are taken from Horner (1898-1905), and have been checked against Quecke's editions. See below for a list of text editions cited.

Completive 'finish' + CONVERB

[7] ⲁⲥⲱⲡⲉ ⲇⲉ ⲛⲧⲉⲣⲉⲓⲥ ⲟⲩⲱ ⲉϥⲟⲩⲉϩⲥⲁϩⲛⲉ
a-s-šôpe de ntere-i(êsou)s ouô e-f-ouehsahne
AUX\PST.AFF-3SG.M-become\INF PTCL CVB.PFV-Jesus finish\INF CVB.IPFV-3SG.M-order\INF
'And it happened when Jesus finished ordering
ⲙⲡⲉϥⲙⲛⲧⲥⲛⲟⲟⲩⲥ ⲙⲙⲁⲑⲏⲧⲏⲥ ⲁϥⲡⲱⲱⲛⲉ
m-pef-mntsnoous m-mathêtês a-f-pôône
OBJ-ART.POSS:SG.M:3SG.M-12 of-disciple AUX\PST.AFF-3SG.M-move out
his 12 disciples, he moved
ⲉⲃⲟⲗ ϩⲙⲡⲙⲁ ⲉⲧⲙⲙⲁⲩ ⲉⲧⲥⲃⲱ ... (Sahidic [S], Mt 11:1)
ebol hm-p-ma et-mmau e-ti-sbô
out of-ART:SG.M-place REL-there to-give\INF-teaching
out of that place to teach...'

[8] ⲉⲧⲁⲩⲟⲩⲱ ⲉⲩⲥⲱⲃⲓ ⲙⲙⲟϥ (Bohairic [B], Mt 27:31)
eta-u-ouô e-u-sôbi mmo-f
CVB.PFV-3PL-finish CVB.IPFV-3PL-mock OBJ-3SG.M
'After they finished mocking him.'
ⲉⲑⲁⲩⲟⲩⲱ ⲇⲉ ⲉⲩⲥⲟⲃⲉ ⲙⲙⲁϥ (Oxyrhynchitic [M], Mt 27:31)
et^{h}a-u-ouô de e-u-sobe mma-f
CVB.PFV-3PL-finish PTCL CVB.IPFV-3PL-mock OBJ-3SG.M
'After they finished mocking him.'

Perfect/'Anterior' (see Funk 1981: 193)

[9] ᾽Ηλίας ἤδη ἦλθεν (Mt 17:12)
'Elijah has already come.'

ⲁϩⲏⲗⲓⲁⲥ ⲟⲩⲱ ⲉϥⲉⲓ[13]
a-hêlias ouô e-f-ei
AUX\PRF.AFF:-Elijah :PRF.AFF :PRF.AFF-3SG.M-come\INF
'Elijah has already come.'

ϩⲏⲗⲓⲁⲥ ϩⲁϥⲟⲩⲱ ⲉϥⲉⲓ[15]
hêlias haf-ouô e-f-ei
Elijah AUX\PRF.AFF-3SG.M-:PRF.AFF :PRF.AFF-3SG.M-come\INF
'Elijah has already come.'

οὔπω ἐστὶν τὸ τέλος (Mt 24:6)
'It is not yet the end.'

ⲙⲡⲁⲧⲉⲑⲁϩ ⲉⲓ[14]
mpate-t-haê ei
AUX\PRF.NEG-ART.SG.F-end come\INF
'The end has not yet come.'

ⲙⲡⲁⲧⲉⲑⲁϩ ⲱⲡⲉ[16]
mpate-t-haê šope
AUX\PRF.NEG-ART:SG.F-end become\INF
'The end has not yet come.'

[10] ⲁϥⲟⲩⲱ ⲉϥⲣⲛⲟⲉⲓⲕ ⲉⲣⲟⲥ ϩⲙⲡⲉϥϩⲏⲧ (Sahidic [S], Mt 5:28)
a-f-ouô e-f-r-noeik ero-s hm-pef-hêt
AUX\PRF.AFF:-3SG.M-:PRF.AFF :PRF.AFF-3SG.M-do\INF-adultery against-3SG.F in-ART.POSS:SG.M:3SG.M-heart
'He has already committed adultery with her in his heart.'

13 Sahidic [S], Mt 17:12.
14 Sahidic [S], Mt 24:6.
15 Oxyrhynchitic [M], Mt 17:12.
16 Oxyrhynchitic [M], Mt 24:6.

ϩⲁϥⲟⲩⲱ ⲉϥⲉⲣⲛⲁⲉⲓⲕ ⲉⲣⲁⲥ ϩⲙⲡⲉϥϩⲏⲧ (Oxyrhynchitic [M], Mt 5:28)
ha-f-ouô e-f-er-naeik era-s hm-pef-hêt
AUX\PRF.AFF:-3SG.M-:PRF.AFF :PRF.AFF-3SG.M-do-adultery against-3SG.F in-POSS.ART:SG.M:3SG.M-heart
'He has already committed adultery with her in his heart.'

[11] ϩⲁⲩⲟⲩⲱ ⲉⲩⲭⲓ ⲙⲡⲉⲩⲃⲉⲕⲏ (Oxyrhynchitic [M], Mt 6:2)
ha-u-ouô e-u-ci m-peu-bekê
AUX\PRF.AFF-3PL-:PRF.AFF :PRF.AFF-3PL-receive OBJ-POSS.ART:SG.M:3PL-wage

ⲁⲩⲟⲩⲱ ⲉⲩⲭⲓ ⲙⲡⲉⲩⲃⲉⲕⲏ (Fayyumic [F5], Mt 6:5, Boud'hors 1988: 102)
a-u-ouô e-u-ci m-peu-bekê
AUX\PRF.AFF:-3PL-:PRF.AFF :PRF.AFF-3PL-receive OBJ-POSS.ART:SG.M:3PL-wage
'They have received their wage.'

For the Sahidic New Testament, completive constructions involving the 'clause conjugation' ⲛⲧⲉⲣⲉ- *ntere-*, a perfective (or 'anterior') converb, invariably translate Greek τελεῖν or παύεσθαι, while the periphrastic Perfect translates either ἤδη 'already' or in one case, the preverb προ- 'en composition,' according to Lefort (1950: 1010-1011). It should therefore be stressed that the Coptic periphrastic Perfect renders the 'already' notion,[17] while the Coptic Completive translates a Greek Completive marked by a verb meaning 'finish.' In a significant number of cases, the periphrastic Perfect has no explicit trigger in the Greek, and reflects the translator's understanding of the text (e.g., Mt 6:2, 5, 16; Mk 15:20).

I will not enter into the difficult question of the aspectual and temporal differences between the lexical source construction and the more grammaticalized Perfect, although one can suggest that the source construction implies marked durativity while the more grammaticalized construction implies non-durativity.

More importantly, 'finish' completives involve a degree of *control* over the event by the subject that is not necessarily present in the more grammaticalized Perfect. For example, in the above examples (9-11), a completive reading would imply that the subject had a degree of control over the various phases of a dynamic event, especially the ability to bring the event to an end, whereas the perfect reading has no such implication.[18] As such, the range of subjects in the completive construction is more restricted than in the perfect construction, which is evinced by the presence of abstract or inanimate subjects (e.g., ϑⲁⲏ *t-haê* 'the end'). Moreover, the range of verbal predicates in the Completive is more restricted than in the Perfect, since certain verbal predicates are excluded from the Completive by virtue of being excluded from the Bipartite Construction that is one of its constituents. This matter will be discussed below. In any event, the Completive construction can be characterized as encoding a

17 On 'already' and 'yet' and their relation to 'perfect aspect,' see Traugott & Waterhouse (1969).

18 In this respect, examples 7-8 shows a certain degree of ambiguity, perhaps the kind which permits the semantic shift: with subjects that can exert control over an event, including the ability to bring it to an end, it is sometimes difficult to decide whether we are dealing with a completive or a perfect. To my mind, this ambiguity does not exist with examples 9-11, for the reasons discussed above. In any event, the ambiguity (or better, polysemy) of constructions is not a hindrance to the analysis suggested here; rather, such multiplicity of constructional meanings is a normal state of affairs in language, and moreover, is a prerequisite for semantic shift to occur.

dynamic or durative event brought to an end by a controlling agent, while in the Perfect these specific features are absent.[19] It should be noted that this aspect has rarely been noted in literature on grammaticalization of perfects ('anteriors'), perhaps due to a focus on resultative source constructions at the expense of 'finish'-type source construction,[20] despite their cross-linguistic frequency.

This is clearly an inadequate formulation, especially since it is phrased negatively without any commitment to the positive semantic features acquired by the new perfect. It requires much additional study of the *Aktionsart* of the specific verbs involved, the range of subjects compatible with the construction, and surely additional parameters. At this point, I have nothing to say about the actual mechanism (e.g., metaphoric or metonymic inferencing, conventionalization of conversational implicatures, etc.[21]) by which the positive semantic features of the completive (durativity, subject control over the event) were lost in the course of grammaticalization, or about the type of 'pragmatic enrichment' of the grammaticalizing construction, which would require a fine-grained discussion of this construction in context.[22]

Rather, the focus of the present discussion is the subsequent grammaticalization that the periphrastic Perfect undergoes. It was observed – and explained – already by Jernstedt (1927: 70):

> In späten Denkmälern, u.z., in Papyri seit dem VII Jahrh. nachweisbar, kommt der Pronominalis in der Verbindung von nichtpräsentischem ογω + Umstandssatz auf. Es

19 It is difficult to integrate the Coptic data with the discussion of perfects ('anteriors'), their sources, and their paths of grammaticalization in Bybee et al. (1994), for reasons that need not concern us here in detail. One can say, however, that the Coptic Perfect is a 'young anterior' in their terms, mainly due to the fact that it occurs only with dynamic predicates, excluding stative ones. On the other hand, it is not certain whether the Coptic Perfect ever marks the 'present state use' with change-of-state verbs, although this is of course a matter to be investigated. It is interesting in this context that *wꜣḥ-f-stp* follows the typical path 'finish' > COMPLETIVE > ANTERIOR > SIMPLE PAST, if the suggestions made in this paper are adopted. The difference between the two processes is not clear to me, especially since both involve, ultimately, the same verbal lexeme. It might further be noted that the cross-linguistic data cited in Bybee et al. (1994) support the view that 'finish' perfects involve a distinct path of semantic change (compared to, e.g., those with resultative source constructions), and probably always involved loss of control, the symptom of which is compatibility with new types of subjects. The fact that ογω *ouô* 'finish' no longer imposes semantic selectional restrictions on the subject is already strong evidence for clause union, constructionalization, and grammaticalization (Givón 1997: 73).

20 A rare exception is Langacker (1999), which is entirely devoted to "a common type of semantic change involving attentuation in the degree of control exerted by an agentive subject," resulting in 'subjectification' (148). However, the parallels between the type of functional shift involved in the much-discussed 'going' futures and those occurring in the grammaticalization of 'finish' perfects have yet to be drawn. They seem to be significantly different in detail, and perhaps in principle, from the type of functional shift involved in the grammaticalization of perfects of the English type (as profiled in e.g., Carey 1994).

21 See, e.g., Traugott & König (1991), Hopper & Traugott (2003).

22 There is also a possible syntactic correlate: one might consider that ογω *ouô* 'finish,' as a verb lexeme with transitive potential, can enter into an intransitive construction (compare English 'the movie finished filming'); in this case, the entire construction would be reanalyzed. In this construction, no control of the subject over the process is implied anyway, but rather, the verbal action is presented as occurring spontaneously, without an agent. Still, this does not account for the rest of the phenomena observed, and one would still have to explain the semantic shift from COMPLETIVE to PERFECT.

> heisst also ⲁⲓⲟⲩⲱ ⲉⲓϧⲟⲟⲥ … wofür in Denkmälern wie die Bibelübersetzung oder Schenute nur ⲁⲓⲟⲩⲱ ⲉⲓϧⲱ ⲙⲛⲟⲥ … gebraucht wird. Es liegt auf der Hand, dass die Neuerung auf grammatikalischer Vereinheitlichung des Komplexes beruht, indem dank dieser der Tempuscharakter des adverbialisierten Verbs die grammatische Behandlung des semantisch wichtigeren bestimmte,

Funk (1981: 194) ties Jernstedt's observation directly to grammaticalization:

> Demnach sieht es so aus, als vollzieht sich hier im Laufe der koptischen Periode eine allmähliche Grammatikalisierung, die die einstige periphrastische Konstruktion mit Umstandssatz nach und nach zu einer Ersatzkonjugation werden läßt, bei der die nach ⲉⲩ- gebrauchte Form nicht mehr den Bedingungen des Zweiteiligen Schemas unterliegt

Shisha-Halevy discusses this construction, explicitly linking it to two functional motivations for the grammatical features of the construction, as well as giving a syntactic analysis and its diachronic perspective:

> An all-important issue which is but marginally within the scope of the present discussion is the correlation of the expansion properties of the present-tense predicate with its two semasiological distinctive features, durativity and actuality. Under certain circumstances, functional suppression of the durativity feature takes place and is manifested in the invalidation (or overruling) of the Stern-Jernsted Rule: Jernstedt 1927:70(3), ⲁⲩⲟⲩⲱ ⲉⲩ-. Jernstedt himself attributed this to the 'grammatical union' in the complex '*auxiliary + circumstantial present*,' the conjugation base ('Tempuscharakter') of the auxiliary dictating the treatment of the lexically more important but grammatically subordinate auxiliate (1986: 118-119).

and

> It is only in the perfective ⲁⲩⲟⲩⲱ ⲉⲩ- (with ⲁ- ⲟⲩⲱ ⲉ- the discontinuous tense-morpheme of the marked perfect (vs. the unmarked ⲁⲩ) that we find this phenomenon; the negative correspondent here is ⲙⲡⲁⲧⲩ- (Stern's "perfectum absolutum": ⲙⲡⲩ- is unmarked). [...] Note that ⲁⲩⲟⲩⲱ ⲉⲩ- is the analytic "renewed" successor of ϩⲁⲩ-, the original affirmative counterpart of ⲙⲡⲁⲧⲩ-. Thus, the familiar *analysis* → *synthesis* → *reanalysis* diachronic spiral is again in evidence (1986: 119, n. 43).

The perspectives proposed by these three scholars are adopted here, and the present article should be considered but an exploration of their ideas.

It should be noted that the Coptic periphrastic Perfect construction differs structurally from the Demotic perfect *w³ḥ-f-stp*.

- First, in Demotic, the construction is syntagmatically simpler, comprising a finite auxiliary (*w³ḥ-f*) directly governing an infinitive (*stp*). In Coptic, the completive source construction is constructed as finite auxiliary (ⲁⲩ- *af-*) governing the lexeme 'to finish' (ⲟⲩⲱ *ouô*), which in turn governs a finite converb (ⲉⲩⲥⲱⲧⲡ *efsôtp*).[23]

23 For converbs in Egyptian-Coptic and in general, see Shisha-Halevy (1986, 2000, 2007, forthcoming a, forthcoming b), the latter two including reference to numerous discussions of the matter in Celtic languages as well. The term converb is also used in Grossman (2007a) to describe the 'Circumstantial Conversion.' It has also been used recently, albeit in a somewhat different sense, in Kammerzell (2008) and Reintges (forthcoming b). A different term but a similar conception is

- Another parameter is the degree of periphrasis: I know of no Demotic examples of, e.g., **ỉr-f-wꜣḥ ỉw-f stp* that would correspond to Coptic ⲁⲫⲟⲩⲱ ⲉϥⲥⲱⲧⲡ.[24] Nevertheless, the Coptic construction has Demotic antecedents (see below).

This is an outstanding example of the principle that it is constructions (and derivatively, their constituents) rather than isolated elements that undergo grammaticalization, since *wꜣḥ* ('finish') as lexeme and as auxiliary undergo – as it will be proposed here – two divergent grammaticalization paths, in accordance with the distinct constructions in which they occur.

As said above, I will not dwell here on the functional shift from COMPLETIVE to PERFECT, which has been demonstrated elsewhere.[25] Rather, I will focus on the morphosyntactic consequences of this shift, which are considered here to be further stages of grammaticalization. At least three distinct stages can be identified within Coptic: (1) the restriction of the head verb to the past-reference auxiliaries, primarily ⲁ- *a-*,[26] (2) the exclusion of the Stative Converb from the predicate paradigm of the lexical verb (ⲉϥⲥⲱⲧⲡ *efsôtp*), which has considerable consequences, and (3) the suspension of Differential Object Marking, which in effect means the exclusion of the Dynamic Converb ('Durative Infinitive,' 'Adverbial Infinitive').

Gradually, ⲁⲫⲟⲩⲱ ⲉϥⲥⲱⲧⲡ *afouô efsôtp* grammaticalizes as a 'doubled inflection' auxiliary construction.[27] In effect, it takes on many of the morphosyntactic features of the Auxiliary Construction ('Tripartite Conjugation'),[28] apparently through reanalysis and analogical extension, which are often considered the main mechanisms of grammaticalization.[29] The most grammaticalized construction is found in relatively few Coptic corpora, and only in a single corpus, Early Bohairic (*B4*), is it the only one found.[30]

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found in Satzinger (2006). However, the typological appropriateness of 'converb' as an analytical term for Egyptian and Coptic has yet to be fully appreciated.

24 This absence might constitute indirect evidence that *wꜣḥ-f-stp* is in fact at least one of the diachronic source constructions involved in Coptic ⲁⲫⲥⲱⲧⲡ *afsôtp*.

25 E.g., Funk (1981).

26 In fact, it is restricted to ⲁ- *a-*, but I would like to leave room for the possibility of analogical extension to other auxiliaries, such as ⲛⲧⲉⲣⲉ- *ntere-*, the Perfective (or 'Anterior') Converb. This latter form and the forms in paradigm with it seem to exclude a clearly perfect reading. For Shenoute, for example, Shisha-Halevy states that it is always completive rather than perfect (1986: 119). A functional motivation can be ventured: since the Coptic Perfective or 'Anterior' Converb (the 'Temporalis') and related forms signal a relative tense, the relative tense expressed by the perfect would be superfluous. Further study of this question would surely be rewarding. In Bohairic, there is some evidence for its analogical extension, viz., further grammaticalization, witnessed by the compatibility of ⲟⲩⲱ *ouô* with the lexical verb ϫⲱⲕ ⲉⲃⲟⲗ *côk ebol* 'to complete' (Mt 13:53).

27 For an exhaustive typological account of this phenomenon, see Anderson (2006: 144-182).

28 The non-durative system is here analyzed as a system of auxiliary constructions. This analysis will be presented in a rather brief fashion below; it is developed more fully in Grossman (2009a & in preparation).

29 The conception of reanalysis and analogy as the main mechanisms of grammaticalization seems to be *communis opinio*, but see Haspelmath (1998) for a serious challenge to this model. This matter will be resumed later in this paper.

30 It should be made clear that there is no direct correlation between the chronology of corpora and the various stages of grammaticalization, as 'advanced' constructions are often found in chrono-

Here it is useful to clarify a matter that has been somewhat obscure in discussions of the *gradualness* of grammaticalization. In opposition to what appears to be the majority opinion, according to which grammaticalization is itself a gradual process,[31] Givón (1991: 122-123) has distinguished between two distinct aspects of grammaticalization, 'functional analogical extension,' which applies to semantics and pragmatics, and 'structural code adjustment,' which applies to phonology and morphosyntax. Givón argues that "structural adjustment tends to lag behind creative-elaborative functional reanalysis. The studies purporting to show the gradual nature of grammaticalization have, in all likelihood, reported on the protracted structural adjustment at the code level, adjustments that follow – sometimes long after – the original developments at the functional level."[32] In other words, what usually appears to be gradual is the 'structural code adjustment,' or morphosyntactic and phonological shift.

The case of Coptic perfects provides direct support for this hypothesis, since the semantic shift COMPLETIVE > PERFECT *precedes* the 'structural code adjustment' of the periphrastic perfect within Coptic. It is possible to state a stronger version of this hypothesis, namely, that structural code adjustment does not only follow functional shift, but rather, is *motivated* by it. In other words, change at the level of the signified drives change at the level of the signifier. Linguists seem to be somewhat squeamish about this hypothesis, usually preferring weaker claims.[33] It appears to have been implicitly challenged by e.g., Bybee et al., who resist what they identify as the teleological implications of this hypothesis.[34] However, the other hypotheses, that the relationship

logically early corpora and 'conservative' constructions in late ones. One also finds 'skipping' effects, with a feature attested in two non-successive phases of a written language, as well as linguistic cycles, which ought to be carefully distinguished.

31 E.g., Lichtenberk (1991).

32 This insight is attributed to Sapir (1921: 98) by Heine, Claudi & Hünnemeyer (1991: 213-214), who themselves say "When a new, more grammatical meaning arises, then the means used to express it tend to retain its original form and morphosyntactic behavior for some time; that is, conceptual/semantic shift precedes morphosyntactic and phonological shift." See also Gildea (1997: 182): "It is, I think, generally accepted in grammaticalization studies that innovative constructions first extend their functional load into new domains without immediate consequences in the (surface) formal structure of grammar." Harris & Campbell (1995: 77) cite Timberlake (1977) on the distinction between reanalysis and actualization: "If reanalysis is seen as preceding those surface changes, the latter are explained; they bring the surface into line with the innovative underlying structure." In other words, Harris & Campbell seem to be endorsing an argument from iconicity, at least implicitly. In terms of Harris & Campbell's theory, the Coptic construction discussed here would be roughly at Stage B (actualization): "The structure is subject to multiple analysis; it gradually acquires the characteristics of an innovative analysis, distinct from that of Stage A (The input structure has all of the superficial characteristics of the input analysis)" (1995: 81-82). However, the reanalysis-plus-actualization model has been the subject of severe criticism in Haspelmath (1998: 340-341), on the basis of its unconstrained nature, implausibility, lack of explanatory ability, and generally abstract conception of grammar.

33 Some theorists of language change appear to accept this principle implicitly. See, for example, Keller (1995: 17) on conjunctional *weil* in German "[...] the change of word order in the clause after *weil* is motivated by a change of meaning."

34 Bybee et al. (1994: 298-300). This seems to conflict with their statement that "It seems natural to look for a direct, and even causal, link between semantic and phonetic reduction in the evolution of grammatical material [...]. Our hypothesis is that the development of grammatical material is characterized by the dynamic coevolution of meaning and form" (1994: 20). It should be said that phonetic or semantic reduction is not the only indication or the inevitable result of grammaticalization,

between functional change and formal change in grammaticalization are either unrelated or merely temporally related, would also have to be argued explicitly. Recent work makes a nuanced case for the functional motivation for grammatical change, while arguing for a heuristic rather than deterministic or teleological understanding of the processes involved in grammaticalization.[35] This matter will be resumed in the conclusions.

Assumed here is the gradience – as opposed to discreteness – of linguistic categories.[36] This gradience maps to the observed diachronic gradualness of grammaticalization: as often pointed out in literature on grammaticalization, the shift from more lexical or concrete to more grammatical or abstract indicates that there are interim *categories* synchronically as well as interim *stages* diachronically. This notion is crucial for the discussion in the present article, since the grammaticalization process presented here is the gradual shift from a bi-clausal verbal structure to mono-clausal auxiliary construction. Recent studies of Coptic syntax have suggested that the Coptic 'Conjugation Bases' are but 'TAM markers' rather than auxiliary verbs.[37] This matter cannot be discussed here in detail, but it should be stated explicitly that the Coptic 'Tripartite Conjugation' is best analyzed as a synchronic Auxiliary Construction, on theoretical, empirical, and typological grounds.[38] The gradience of 'auxiliariness' reflects the gradual nature of the grammaticalization of the constructions in which they participate. Bolinger (1980: 297) once said that "the moment a verb is given an infinitive

in a non-teleological view, although critics have been quick to interpret statements such as such, probably due to terms like 'coevolution.' For example, Bisang (2008) objects to the 'coevolution of meaning and form' as a necessary part of grammaticalization. This is beside the point: there is a difference, however subtle, between the claim that semantic change motivates formal change, and the stronger claim that formal change is the necessary and inevitable result of semantic change. I do not believe that anyone seriously considers the latter claim to be in any way empirically valid, outside of polemics (although see Rubba [1994: 81], who overreaches in her attempt to demonstrate that "grammaticization can be viewed as a process of semantic change, with formal changes typical of grammaticization following *automatically* as consequences of the semantic change" [emphasis mine, EG]). The former claim, however, is a hypothesis worth exploring. Finally, it should be stressed that there is a considerable range of grammaticalization phenomena that do not involve phonetic reduction, not least of all in the case of constructions that have set down a grammaticalization path but are still in its early stages, but also including the grammaticalization of linear orders, the syntactization of pragmatics, and so on.

35 E.g., Visconti (2004: 187). This is not the place to weigh in on the controversies surrounding the so-called Unidirectionality Hypothesis, for which see Fischer et al. (2004, especially Haspelmath's contribution therein) and Norde (2009). However, it should be noted that there is nothing in the case discussed here that would contradict this hypothesis.

36 See, for example, Bolinger (1961), García (1967), and Haspelmath (1998), with a recent survey found in Aarts (2008). For disucssions of the gradience of the distinction between lexical verbs and auxiliary verbs, see Bolinger (1980), Heine (1993) and Anderson (2006).

37 See, for example, Loprieno (2000: 24-26) and Reintges (2004: 252). The latter author has been kind enough to share with me his forthcoming paper on the topic (Reintges forthcoming a), which includes a detailed analysis that differs in important respects from his earlier account

38 Evidence for this analysis, presented briefly in Basel (March 2009) seems to me to merit a separate discussion, and as such will be explored more fully in Grossman (in preparation). It should be pointed out that grammaticalization studies provide ample evidence for not making a sharp distinction between morphology and syntax, and head-dependent relations between a matrix verb and an embedded verb often persist even after clause fusion and univerbation has taken place. See Haspelmath (1992) for the advantages of such an approach in general.

complement,[39] that verb starts down the road to auxiliariness." However, 'auxiliariness' is not a single destination point, but rather a road unto itself. The Coptic 'Conjugation Bases' are somewhere in the middle of this road, and are in fact highly typical auxiliaries.[40]

3. The stages of grammaticalization of the periphrastic Perfect

The periphrastic Perfect, at least at its earliest phases of grammaticalization, belongs to a cadre of periphrastic constructions in which the complement carrying the lexical verb lexeme is realized by a converb ('Circumstantial Conversion'). The following presentation is taken from Layton (^{2}2004: 341-343); one should keep in mind that it is meant as illustrative rather than exhaustive. All examples are Sahidic.

a.	ϣⲱⲡⲉ ⲉ-[1] *šope e-*	periphrastic 'tense extension'
b.	ϣⲱⲡⲉ ⲉ-[2] *šope e-*	inchoative Aktionsart
c.	ⲉⲓ ⲉ- *ei e-*	*be about to*
d.	ⲕⲁⲧⲟⲟⲧ- ⲉⲃⲟⲗ, ⲗⲟ ⲉ- *katoot- ebol, lo e-*	*cease*
e.	ⲥⲱ ⲉ-, ⲱⲥⲕ ⲉ- *cô e-, ôsk e-*	*continue*

[12] ϥⲛⲁϣⲱⲡⲉ ⲉϥⲙⲏⲣ ϩⲛⲙⲡⲏⲩⲉ (Mt 16:19)
f-na-šôpe e-f-mêr hn-m-pêue
3SG.M-AUX\FUT-become\INF CVB.IPFV-3SG.M-bind\CVB.STAT in-ART.PL-heavens
'It will be bound in the heavens.'

[13] ⲙⲁⲣⲉϥϣⲱⲡⲉ ⲉⲟⲩⲁⲁⲡⲉ (Sir 5:12)
mare-f-šôpe e-ouaa=pe
AUX\JUSS-3SG.M-become CVB.IPFV-one=PRON.THEME:SG.M
'Let it be one thing.'

39 See Givón (2001: Chapter 12) for an expansion of verbal complements well beyond the infinitive, as well as a framework for their functional analysis in the context of clause union. See also Polis (2009) on the gradience of syntactic integration and clause union in Late Egyptian.

40 "Auxiliary verb constructions start out involving two verbs, one of which gradually becomes reinterpreted as contributing functional rather than content semantics, and ultimately loses some of its original syntactic and morphological properties (ability to assign case independently or even appear with independent non-subject arguments, ability to be independently negated, loss of original tonal or prosodic characteristics" (Anderson 2006: 333). Taken together with Heine's list of prototypical traits of auxiliaries (1993: 86-87), it appears that the Coptic auxiliaries are anything but atypical, and are in fact not at the extreme edge of the grammaticalization scale. While there is nothing contradictory in calling auxiliaries 'TAM markers,' it should be pointed out that they usually do much more than mark TAM distinctions, e.g., negation, syntactic status, and numerous discourse functions. More to the point, the fact that something marks tense, aspect, or mood hardly entails the end of its verbal status. It should be kept in mind that "There is no, and probably cannot be, any specific, language-independent formal criteria that can be used to determine the characterization of any given element as a lexical verb or an auxiliary verb [or as auxiliary verb or TAM marker, EG]. As in all scalar, gradual, or gradient phenomena, clines of grammaticalization and semantic bleaching have "grey areas," where the element in question has accrued some features generally associated with end-points or focal points on the continuum (i.e., canonical realization of the form-function cluster called auxiliary verb), but perhaps not other features" (Anderson 2006: 5).

[14] ϣⲱⲡⲉ ⲉⲕⲟⲩⲱⲱⲙⲉ ⲟⲉ ⲙⲙⲟⲕ (Mt 5:25)
šôpe e-k-ouôôme kʸe mmo-k
become\IMP CVB.IPFV-2SG.M-accomodate\INF PTCL OBJ-2SG.M
'So be accommodating...'

[15] ⲁⲥϣⲱⲡⲉ ⲉⲥϯⲡⲓ ⲉⲛⲉϥⲟⲩⲉⲣⲏⲧⲉ (Lk 7:38)
a-s-šôpe e-s-tipi e-nef-ouerête
AUX\PST.AFF-3SG.F-become\INF CVB.IPFV-3SG.F-kiss\INF OBJ-POSS.ART:PL:3SG.M-feet
'She began kissing his feet.'

[16] ⲁϥⲉⲓ ⲉϥⲛⲁϩⲟⲧⲃⲉϥ (Acts 16:27)
a-f-ei e-f-na-hotb-ef
AUX\PST.AFF-3SG.M-come\INF CVB.IPFV-3SG.M-AUX\FUT-kill\INF-3SG.M
'He was about to kill himself.'

[17] ⲁⲩⲗⲟ ⲉⲩⲙⲟⲟϣⲉ ⲛⲙⲙⲁϥ (Jn 6:66)
a-u-lo e-u-mooše nmma-f
AUX\PST.AFF-3PL-stop\INF CVB.IPFV-3PL-walk\INF with-3SG.M
'They stopped going about with him.'

[18] ⲙⲡϥⲗⲟ ⲉϥⲟ ⲛ̀ⲭⲟⲉⲓⲥ (Sahidic, Shenoute, Wessely 1909: 131-132)
mp-f-lo e-f-o n-coeis
AUX\PST.NEG-3SG.M-stop\INF CVB.IPFV-3SG.M-do\CVB.STAT PREP-lord
'He didn't stop being God.'

[19] ⲙⲡⲣⲗⲟ ⲉⲕⲉⲓⲣⲉ ⲙ̀ⲡⲡⲉⲧⲛⲁⲛⲟⲩϥ (Sahidic, Shenoute, Coquin 2001: 21-21)
mpr-lo e-k-eire m-p-petnanouf
PROH-stop\INF CVB.IPFV-2SG.M-do\INF OBJ-ART:SG.M-good:
'Don't stop doing good.'

In each of the above constructions, the converb ('Circumstantial Conversion') shows no structural difference from similar constructions found outside of periphrasis. This is, however, not the case with the Perfect construction ⲁϥⲟⲩⲱ ⲉϥⲥⲱⲧⲡ *afouô efsôtp*. In order to clarify the grammaticalization of the Perfect in Coptic, one should keep in mind the following syntactic features of the durative tenses:

1. The Dynamic/Stative Converb ('Durative Infinitive'/'Stative') opposition:
   - For transitive verbs, the formal opposition between the two rhematic converbs (Dynamic and Stative) corresponds to a functional opposition of voice: ϥⲕⲱⲧ *f-kôt* 'he builds' ϥⲕⲛⲧ *f-kêt* 'it is built.'
   - Dynamic Converbs of intransitive verbs of motion are excluded; only the Stative Converb occurs. Thus, the opposition between Dynamic Converb and Stative Converb is *neutralized*, e.g., ϥⲃⲛⲕ *f-bêk* 'he is going' (and not *f-bôk*).
   - Other intransitives: the functional load of the opposition between Stative and Dynamic Converbs is quite low, and the latter form of many such verbs is often unattested. The infinitive ⲙⲟⲩ *mou* 'to die,' for example, is found only in

non-durative (viz., generic) contexts. The formal opposition, insofar as it exists, is between state and process.[41]

2. Differential Object Marking (DOM): the Stern-Jernstedt Rule[42]
   - Objects headed by a zero article are incorporated, conditioning the pre-nominal allomorph of the Dynamic Converb ('Durative Infinitive').
   - All other objects condition the mediate construction (ⲛ-/ⲙⲙⲟ- *n-/mmo-*).
   - As such, the pre-pronominal allomorph of the Dynamic Converb is excluded.
   - All exceptions to DOM in the durative system are lexically specifiable (e.g., ⲟⲩⲱϣ ⲟⲩⲁϣ≠ ⲟⲩⲉϣ- *ouôš ouaš- oueš-* 'to wish, to love') or are indicative of non-durative status, either as grammaticalized Auxiliary Construction ('tripartite conjugations'), e.g., protatic ⲉϥⲥⲱⲧⲙ *efsôtm* or as a generic present.
   - DOM in the Auxiliary Construction (viz., non-durative system) is still poorly understood, as are most transitivity alternations (Shisha-Halevy 1986: Chapter 3, Engsheden 2006 & 2008).

The suspension or absence of any of these features is indicative of grammaticalization.[43] In short, if we encounter Infinitives of intransitive verbs of the types noted above, Infinitives of 'labile verbs' rather than Stative Converbs, or the absence of DOM, we can be sure that grammaticalization is at work. In the present case, they have to do with the suppression of durativity, stativity, and the agent's control over a process, probably due to the incompatibility of these semantic features with the specific semantics of the Coptic Perfect. One notes that the exclusion of the Stative Converb permits the occurrence in the Perfect of punctual events, such as 'die'; it also leads to a situation in which the Dynamic Converb is reinterpreted as an Infinitive, with significant structural consequences.

I will argue that the 'structural adjustment' phases of the grammaticalization of the periphrastic perfect occurred in three distinct phases, with the various Coptic corpora realizing different stages of this trajectory.

Stage I: paradigm reduction

Auxiliary paradigm: restriction to past-reference auxiliaries, primarily ⲁ- *a-* (ϩⲁ- *ha-* in e.g., Oxyrhynchitic, see above)

41 "The possibility of having the same actor for the Infinitive as well as for the Qualitative is limited to intransitive verbs, but the number of such verbs actually admitting both forms in the Bipartite Pattern is none too great. […] With many intransitive verbs, like ϩⲕⲟ *hko* 'to hunger' and ⲉⲓⲃⲉ *eibe* 'to be thirsty' the Infinitive is hardly found in the Bipartite Pattern" (Polotsky 1960: §9).

42 Stern (1880), Jernstedt (1927); Polotsky (1960); Shisha-Halevy (1973, for the first conceptualization of the 'adverbial infinitive') & (1986); Schenkel (1978); Engsheden (2006 & 2008).

43 The Coptic Protatic and Apodotic conjugation patterns (first Shisha-Halevy 1973 & 1974; see Grossman 2009b for more recent bibliography) involve grammaticalization, although the precise paths from the source constructions (*i.ir-f-stp* on the one hand and *iw-f ḥr-stp* on the other) have yet to be examined from the perspective of grammaticalization. For the protatic *i.ir-f-stp*, see Grossman (2007b), which briefly discusses the semantic and structural ambiguity probably at the root of the grammaticalization path from nominal verb form to protasis, already attested in Late Egyptian.

Converb ('Circumstantial') paradigm: restriction to the Imperfective Converb ('Circumstantial Present'): all other converted nexus patterns (e.g., ϵ-Nominal Sentence) excluded.
Actor paradigm: invariably coreferential. Only pronominal inflection attested in the converb.
At this stage, the Stative Converb still occurs.

[20] ϩнλιac [ϩaq]oγω ϵqnноγ (Oxyrhynchitic [M], Mt 17:12, Codex Schøyen)
hêlias [ha-f]ouô e-f-nêou
Elijah [AUX\PRF.AFF-3SG.M] CVB.IPFV-3SG.M-come\CVB.STAT
'Elijah has already come.'

Stage II: exclusion of the Stative Converb

The systematic absence of the Stative in this environment has far-reaching structural consequences (Funk 1981: 193-194).

a. The opposition between Stative and Dynamic Converbs of verbs of motion is neutralized. Rather, the Infinitive occurs, as in the Auxiliary Constructions ('Tripartite Conjugations').

[21] [a]qoγω ϵqϵι (Sahidic [S], Shenoute, unpublished Paris ms)
[a-]f-ouô e-f-ei
[AUX\PRF.AFF-:]3SG.M-:PRF.AFF :PRF.AFF-3SG.M-come\INF
'It has already come.'

See also example (9) above.

[22] ϵicϩнπϵ cnноγ nxϵγnоγ acoγω ϵcι ϩinа nτϵτϵnxωp ϵβoλ
(Early Bohairic [B4], Jn 16:32)
eishêpe s-nêou nce-unou a-s-ouô e-s-i hina nte-ten-côr ebol
PRES 3SG.F-come\CVB.STAT APP-ART.INDF-moment AUX\PRF.AFF:-3SG.M-:PRF.AFF :PRF.AFF-3SG.F-come\INF PURP SER-2PL-disperse out
'Behold, a time is coming and it has already come for you to disperse...'

b. The opposition between the Stative and Dynamic Converbs of other intransitive verbs is neutralized. Only the Infinitive occurs; нoγ *mou* 'to die' and ϣωπϵ *šôpe* 'to be(come)' are especially common.

[23] nϵaτxϵмτcoγω ϵcϣωπι πϵ nϵмπaτϵинc ι (Early Bohairic [B4], Jn 6:17)
ne-a-t-k^{h}emts-ouô e-s-šôpe pe ne-mpate-i(êsou)s i
SHF:-AUX\PRF.AFF:-ART.SG.F-darkness-:PRF.AFF :PRF.AFF-3SG.F-become\INF :SHF-AUX\PRF.NEG-J. come\INF
'The darkness had already fallen and Jesus had not yet come...'

[24] ϵтaγnaγ xϵaqoγω ϵqнoγ (Early Bohairic [B4], Jn 19:33)
eta-u-nau ce-a-f-ouô e-f-mou
CVB.PFV-3PL-see\INF that-AUX\PRF.AFF:-3SG.M-:PRF.AFF :PRF.AFF-3SG.M-die\INF
'When they saw that he was already dead.'

[25] ⲛⲁϒⲱ ⲉϒⲱⲱⲡⲓ ⲡⲉ (Fayyumic [F4], Ecc 3:15)
na-ϩ-[ou]ô e-ϩ-šôpi pe
SHF:-AUX\3PL- CIRC-3PL-become.INF :SHF
'It has already been.'

c. The opposition between Stative Converb and Dynamic Converb of transitive verbs is neutralized; the ANTICAUSATIVE construction of the causative-anticausative alternation – in Coptic, realized by the Infinitive of *labile* verbs (Kulikov 2003) – supply a functional equivalent of the passive (see Funk 1981: 193; Shisha-Halevy 1986: 119).

[26] ⲁⲫ[ⲟϒ]ⲱ ⲉϥⲭⲱϩⲙ [not Stative ⲭⲁϩⲙ] (NH Sahidic, NHC VI, 25:8[44])
a-f-[ou]ô e-f-côhm
AUX\[PR]F.AFF:-3SG.M-:PRF.AFF :PRF.AFF-3SG.M-make_filthy\INF
'He has already become filthy.'

[27] ⲡⲓⲕⲉⲟⲩⲁ ⲟⲛ ⲁⲫⲟϒⲱ ⲉϥⲭⲱⲕ ⲉⲃⲟⲗ [not Stative ⲭⲏⲕ] (Sahidic, Shenoute[45])
pi-ke-oua on a-f-ouô e-f-côk ebol
DEM.ART:SG.M-other-one also AUX\PRF.AFF:-3SG.M-:PRF.AFF :PRF.AFF-3SG.M-complete\INF out
'This one has also become complete (or: achieved perfection)…'

At Stage II, the converb ⲉϥⲥⲱⲧⲙ *efsôtm* is still capable of being marked as Focus in the 'Second Tense' (Focalizing Conversion) construction:[46]

[28] ⲛⲧⲁⲓⲟϒⲱ ⲁⲛ ⲉⲓⲭⲓ ⲏ ⲛⲧⲁⲓⲟϒⲱ ⲉⲓⲭⲱⲕ ⲉⲃⲟⲗ (Sahidic, Php 3:12).
nt-a-i-ouô an e-i-ci ê nt-a-i-ouô e-i-côk ebol
THMZ-AUX\PRF.AFF:-1SG-:PRF.AFF NEG :PRF.AFF-1SG-come\INF or THMZ-AUX\PRF.AFF:-1SG-:PRF.AFF :PRF.AFF-1SG-perfect\INF out
'Not that I have already obtained or that I have already been perfected...'

Stage III: suspension of Differential Object Marking

In most dialects, only Stage II is attested. However, in a number of corpora, constructions in which DOM is suspended (see e.g., Bossong 1991, Lazard 2001, Winand forthcoming) coexist with Stage II constructions. The main symptom of the suspension of DOM is the fact that the verbal syntagm is compatible with suffix pronominals – marked below in bold print – attached directly to an allomorph of the Infinitive.

[29] ⲡⲣⲟⲥ [ⲑ]ⲉ ⲧⲁⲓⲟϒⲱ ⲉⲓⲭⲟⲟⲥ (Sahidic, P. 400.44)
*pros [t-h]e t-a-i-ouô e-i-coo**s***
as ART:SG.[F-wa]y REL-AUX\PRF.AFF:-1SG-:PRF.AFF :PRF.AFF-1SG-say-**3SG.F**
'...as I have already said'

44 Cited in Funk (1981: 194).
45 Young (1993: 69).
46 Other interpretations of this passage are possible.

[30] ⲁⲓⲟⲩⲱ ⲉⲓϫⲟⲟⲥ ⲉⲣⲟⲕ (Sahidic, Budge 1915: 25, cited in Jernstedt 1927)
*a-i-ouô e-i-coo-**s** ero-k*
AUX\PRF.AFF:-1SG-:PRF.AFF :PRF.AFF-1SG-say-**3SG.F** to-2SG.M
'I have already told you...'

[31] ⲁⲓⲟⲩⲱ ⲉⲓⲧⲁⲁϥ (Sahidic, Budge 1915: 28, cited in Jernstedt 1927)
*a-i-ouô e-i-taa-**f***
AUX\PRF.AFF:-1SG-:PRF.AFF :PRF.AFF-1SG-give\INF-**3SG.M**
'I have already given it.'

[32] ⲁⲓⲟⲩⲱ ⲉⲓⲧⲁⲁⲩ ⲛⲁⲥ (Sahidic, P. BM 1151: 11, cited in Jernstedt 1927)
a-i-ouô e-i-taa-u na-s
AUX\PRF.AFF:-1SG :PRF.AFF :PRF.AFF-1SG-give\INF-3PL to-3SG.F
'I have already given them to her...'[47]

Most of the attested Sahidic examples come from the Fayyum or from northern Upper Egypt (e.g., Ashmunein). It has been claimed that this is a 'late' feature, attested in post-classical corpora.[48] However, it is attested in much earlier texts, notably Early Bohairic (B4):

[33] ⲁⲓⲟⲩⲱ ⲉⲓϫⲟⲥ ⲛⲱⲧⲉⲛ (Early Bohairic [B4], Jn 9:27)
*a-i-ouô e-i-co-**s** nô-ten*
AUX\PRF.AFF:-1SG-:PRF.AFF :PRF.AFF-1SG-say\INF-3SG.F to-2PL
'I have already told you...'

[34] ⲫⲏ ⲉⲧⲁⲓⲥϧⲏⲧϥ ⲁⲓⲩⲱ ⲉⲓⲥϧⲏⲧϥ (Early Bohairic [B4], Jn 19:22)
*p^{h}ê et-a-i-sxêt-f a-i-uô e-i-sxêt-**f***
DEM.PRON:SG.M REL-AUX\PST.AFF-1SG-write-3SG.M AUX\PRF.AFF:-1SG-:PRF.AFF :PRF.AFF-1SG-write\INF-**3SG.M**
'What I have written, I have already written.'

The sole example with ⲛ- *n-* marking the object does not constitute a counter-example, as in Early Bohairic, the indefinite article ⲟⲩ- *ou-* conditions ⲛ- n- in the Auxiliary Construction ('Tripartite') as well as in the Adverb/Converb-Rheme ('Bipartite') Constructions:

[35] ⲁϥⲉⲙⲓ ϫⲉⲁϥⲟⲩⲱ ⲉϥⲓⲣⲓ ⲛⲛⲟⲩⲛⲓϣϯ ⲛϫⲣⲟⲛⲟⲥ (Early Bohairic [B4], Jn 5:6)
a-f-emi ce-a-f-ouô e-f-iri nn-ou-ništi n-k^{h}ronos
AUX\PST.AFF-3SG.M-know that-AUX\PRF.AFF:-3SG.M-:PRF.AFF :PRF.AFF-3SG.M-do OBJ-a-great of-time
'He knew that he had already spent much time…'

Compare the Stage I/II constructions from a few other dialects (note Stern-Jernstedt's Rule):

47 In this short text, a late letter from Ashmunein, there is another example of the Perfect (ⲁⲓⲟⲩⲱ ⲉⲓⲥⲙⲛⲧϥ *aiouô eismntf* 'I have established it') two lines above.

48 Jernstedt (1927); Till (^{3}1966: §260d): "Diese Ausnahme besteht allerdings erst seit dem 7. Jahrhundert. Vorher sagte man der Hauptregel entsprechend ⲁⲓⲟⲩⲱ ⲉⲓϫⲱ ⲙⲙⲟⲥ."

[36] ⲁⲉⲓⲟⲩⲱ ⲉⲉⲓⲭⲱ ⲙⲙⲁⲥ ⲛⲏⲧⲛ (Lycopolitan [L5], Jn 9:27)
a-ei-ouô e-ei-cô mma-s nê-tn
AUX\PRF.AFF:-1SG-:PRF.AFF :PRF.AFF-1SG-say OBJ-3SG.F to-2PL
'I have already said to you...'

Similarly:
ⲁⲓⲟⲩⲱ ⲉⲓⲭⲱ ⲙⲙⲟⲥ ⲛⲏⲧⲛ (Sahidic)
[ϩⲁⲓ]ⲟⲩⲱ ⲉⲓⲭⲱ ⲙⲙⲁⲥ ⲛⲏⲧⲛ ('Dialect W')

[37] ⲡⲉⲛⲧⲁⲓⲥⲁϩϥ ⲁⲓⲥⲁϩϥ (Sahidic, Jn 19:22)
p-ent-a-i-sah-f a-i-sah-f
ART.DEF:SG.M-REL-AUX\PST.AFF-1SG-write-3SG.M AUX\PST.AFF-1SG-write-3SG.M
'What I have written, I have already written.'

[38] ⲉⲁⲡⲇⲓⲁⲃⲟⲗⲟⲥ ⲟⲩⲱ ⲉϥⲛⲟⲩϫⲉ ⲙⲙⲁⲥ ⲁⲡϩⲏⲧ ⲛⲓⲟⲩⲇⲁⲥ (Lycopolitcan [L5], Jn 13:2)
e-a-p-diabolos ouô e-f-nouce mma-s a-p-hêt n-ioudas
CVB.IPFV-AUX\PRF.AFF:-DEF.ART.SG.M-devil :PRF.AFF :PRF.AFF-3SG.M-cast OBJ-3SG.F to-DEF.ART.SG.M-heart of-J.
'… the devil having already cast it into the heart of Judas.'

Kommentar [KW1]: ‚5' in your corrections, should I replace 2 with 5?

[39] ⲁⲩⲟⲩⲱ ⲉⲩⲟⲩⲱⲱⲧ ⲛⲧⲉϥϩⲩⲕⲱⲛ (Nitrian Bohairic, Lagarde 1886: 66:22)
a-u-ouô e-u-ouôšt n-tef-hukôn
PRF.AFF:-3PL-:PRF.AFF :PRF.AFF-3PL-worship\INF OBJ-POSS.ART.SG.F:3SG.M-image
'They have already worshipped his image.'

[40] ⲁⲕⲟⲩⲱ ⲉⲕⲥⲓ ⲛⲛⲉⲕⲁⲅⲁⲑⲟⲛ (Nitrian Bohairic, Lagarde 1886: 87:30)
a-k-ouô e-k-c^{h}i n-nek-agathon
PRF.AFF:-2SG.M-:PRF.AFF :PRF.AFF-2SG.M-receive\INF OBJ-POSS.ART.PL:2SG.M-good
'You have already received your goods.'

Interestingly, the Stage III construction is also attested in late Roman Demotic (ca. 2nd century AD) from Tebtunis.[49]

[41] *šny-f z n wḥm, ḏd* [*n-f pꜣ*] *iḫy: hrw 40 nꜣ nty zp ḫn* [*pꜣy-k ꜥḥꜥ n ꜥnḫ*] *m-bꜣḥ wzir* ***wꜣḥ-w iw-w zḫ-k*** *r* [*tꜣ h*]*wly m-bꜣḥ pꜣ* [*ḥry*]*-ntr.w* (P. Petese Tebt. A+B 2/24)
'He asked him again. [The] ghost said [to him]: 40 days is what remains of [your life-time] before Osiris. You have already been recorded in [the] register before the [Chief of] Gods.'

This Stage III construction coexists with a Stage II construction:

49 Quack (1994: 66), Ryholt (1999: 28), Quack & Ryholt (2000: 150-151) for the identification of this form as the predecessor of Coptic ⲁⲫⲟⲩⲱ ⲉϥ-. I would like to thank J.F. Quack for confirming that the absence of the Stern-Jernstedt Rule in a text of this date is indeed remarkable (p.c., 3/2009).

[42] *wꜣḥ⸗f ỉw⸗f ỉrỉ n nꜣy⸗f zwšy.w nꜣy⸗f ꜥby.w* (P. Carlsberg 207 x+2, 18)
'He has already made his burnt offerings and his sacrifical offerings.'

These constructions indicate that this path of grammaticalization is independent of the generalization of periphrasis: in these Demotic texts, *stp-f* still coexists with *ỉr-f-stp*.[50]

One notices that in the earliest phases, the construction is compatible only with delocutive subjects, and only at Stage II does it spread to interlocutive subjects. This seems to be an indication of advancing *subjectification*.[51]

It should also be noted that from the point of view of collocations of lexical verbs with this construction, the earlier phases all involve intransitive verbs ('die,' 'come,' 'be(come)'), and only thereafter spread to objectless transitives ('obtain') and constructionally intransitive 'labile' verbs ('be(come) filthy,' 'complete'). It is only at a later stage of grammaticalization that this construction is compatible with transitive verbs with direct objects ('write').[52] In fact, it is probably possible to further differentiate additional stages of grammaticalization based on the spread of this construction through lexical space. The point to be made here is that once the completive construction is reinterpreted as a perfect, through the loss of control of the subject over the process, not only new types of subjects but also new classes of verbs become compatible with the construction. As a result, the morphosyntactic and selectional features of the construction gradually approach those of the Auxiliary Construction, although it never goes all the way, so to speak.

4. Discussion

Stage III constructions have been grammaticalized to the point that they are 'emergent' non-durative ('Tripartite') Auxiliary Constructions, the lexical verb no longer associated with the durative tense at all. The loss of construction-specific syntactic properties in the course of grammaticalization – in the case of Coptic, the loss of construction-specific restrictions on (a) the predicate and (b) on object syntax – is known from other languages as well:[53]

50 For a more advanced state of affairs, verging on 'Coptic in Demotic writing' or proto-Coptic, see the Narmuthis ostraka. J.F. Quack has kindly drawn to my attention the existence of a Perfect infinitive construction, *n-m-zꜣ wꜣḥ ỉw=f zwr mw ḫmꜣ* 'after having drunk water (with) salt' P. Wien D 6257 6, 7 (p.c., 9/2009). Stéphane Polis has pointed out that *wꜣḥ ỉw-* might be better analyzed as involving the 'thematizing' or 'nominalizing' *ỉw* (compare *nfr ỉw, ḫpr ỉw*, etc.), which would mean that we are dealing here a functionally similar but syntactically distinct construction (p.c., 1/2010).

51 For this notion, which overlaps partially with Langacker's conception of subjectification, see Traugott (1995). Subjectification has never been studied for any stage of Egyptian, except for Polotsky (1944), which predates the usual *locus classicus*, Benveniste (1958).

52 I would like to thank Jean Winand for his comments on these matters.

53 This can be considered a kind of *decategorialization* (Heine et al. 1991: 213; Hopper & Traugott 1993: 103-112), or better, *recategorialization* (Heine et al. 1991: 213).

[43] Early Modern English[54]
[a] "The King himself **is** rode to view their battle," (Shakespeare, *Henry V*, IV, III, 2); "I **am** this instant arrived here" (Witham Marsh, Letter, 1763).
[b] "...as she was [in] writing **of** it" (Shakespeare, *As You Like It* IV, III, 10); "She fancied the bull was a-chasing **of** her" (Alexander, *For His Sake*, I, Ch. III).
cf. later Modern English: has ridden, have arrived, writing it, chasing her.

As it is constructions that undergo grammaticalization, not isolated lexical items,[55] the re-analysis of the lexical verb entails what appears to be the re-analysis of the entire construction. In the present case, **the verbal auxiliary is discontinuous** ⲁ- ⲟⲩⲱ ⲉ- *a- ouô e-* (Shisha-Halevy 1986: 119 n. 43), with a 'doubled' actor slot.[56] Typologically, areally, and genetically, this is not unusual. See, for example, the compound tenses of Amharic, which comprise inflected lexical verb and inflected auxiliary in most persons:

[44] Amharic

	"imperfect"	verb of existence	"compound imperfect"
1 sg.	*əfälläg*	*allähu*	*əfälläg-allähu 'I want/will want'*
2 m.sg.	*təfälläg*	*alläh*	*təfälläg-alläh*
2 f.sg.	*təfälläg<u>i</u>*	*allä<u>š</u>*	*təfälläg<u>y</u>-allä<u>š</u>*
3 m.sg.	*yəfälläg*	*allä*	*yəfälläg-all*
3 f.sg.	*təfälläg*	*alläč<u>č</u>*	*təfälläg-alläč*
1 pl.	*ənnəfälläg*	*allän*	*ənnəfälläg-allän*
2 pl.	*təfälläg<u>**u**</u>*	*allaččəh<u>**u**</u>*	*təfälläg-allačəhu*
3 pl.	*yəfälläg<u>**u**</u>*	*all<u>**u**</u>*	*yəfälläg-allu*

	converb[57]	verb of existence	"present perfect"
1 sg.	*fälläg<u>ge</u>*	*allähu*	*fälläg<u>gy</u>-allähu*
2 m.sg.	*fälläg<u>äh</u>*	*all<u>äh</u>*	*fälläg<u>äh</u>-all*
2 f.sg.	*fälläg<u>äš</u>*	*all<u>äš</u>*	*fälläg<u>äš</u>-all*
3 m.sg.	*fälläg<u>o</u>*	*allä*	*fälläg<u>w</u>-all*
3 f.sg.	*fälläg<u>a</u>*	*alläč<u>č</u>*	*fälläg(a)-alläč<u>č</u>*
1 pl.	*fälläg<u>än</u>*	*all<u>än</u>*	*fälläg<u>än</u>-all*
2 pl.	*fälläg<u>ačč</u><u>əhu</u>*	*all<u>ačč</u><u>əhu</u>*	*fälläg<u>ačč</u><u>əhw</u>-all*
3 pl.	*fälläg<u>äw</u>*	*all<u>u</u>*	*fälläg<u>äw</u>-all*

[45] Arabic *kun-tu (qad) katab-tu* (cited in Anderson 2006)
AUX.PRF-1SG (PTCL.PRF) write.PRF-1SG
'I had (already) written.'

54 Curme (1931: 359, 494). Incidentally, English converbal *-ing* stems from #PREPOSITIONAL PHRASE + NOMINAL VERB FORM#, an isogloss with both Egyptian and Celtic (e.g., Welsh *yn canu* 'singing'). See Shisha-Halevy (2003), Satzinger (2006).
55 See Himmelmann (2004) for an excellent discussion.
56 This analysis is also implied in Jernstedt (1927) and Funk (1981) (both cited above).
57 This form is usually called GERUNDIUM in Ethiopian linguistics, in preference to 'converb,' which has another, more limited sense in the literature. However, the Amharic GERUNDIUM (a language-specific category) is a converb (as a comparative concept). I am grateful to Ya'ar Hever for the Amharic data, as well as discussing this problem with me.

Middle Egyptian *jw-f sḏm-f* and similar constructions should be considered as 'doubled inflection,' as noted by Satzinger (1990: 100; 2006),[58] who links the 'doubled expression of the subject' to information structure.

'Doubled inflection' is widely attested in languages from a number of different areas and families, and appears to be prominent in Africa (Anderson 2006), especially in Northeast Africa. Especially common cross-linguistically is double-subject marking, once on the auxiliary and once on the lexical verb. Converbs and serial verbs are often attested as the realization of the lexical verb; again, this is extremely prominent in Northeast Africa.[59]

This phenomenon – within Coptic – should be compared to a construction that has never been considered in typological perspective as 'doubled inflection,' namely, the ⲁ-ⲡⲣⲱⲙⲉ ⲁ-ⲫ-ⲥⲱⲧⲡ *a-prôme a-f-sôtp* constructions (see Bosson 2006 and Shisha-Halevy 1983 & 2007), in which the auxiliary is doubled, occurring first with nominal subject and then again with resumptive pronominal inflection. This construction, extremely common in and characteristic of early texts, is attested in a wide range of dialects and is found with most conjugation bases and converters:

Auxiliaries ('conjugation bases')

[46] ⲧⲟⲧⲉ ⲁⲡⲉⲧⲣⲟⲥ ⲁϥⲥⲱⲟⲩϩ ⲙⲡⲕⲉⲥⲉⲉⲡⲉ (NH Sahidic, NH VII, 2, 133:12-13[60])
tote a-petros a-f-sôouh m-p-ke-seepe
then AUX\PST.AFF-Peter AUX\PST.AFF-3SG.M-gather\INF OBJ-ART-other-remainder
'Then Peter gathered the rest.'

[47] ⲉ[ϣⲱ]ⲡ ⲁⲣⲉϫⲁⲛⲓⲁⲥⲥⲩⲣⲓⲟⲥ ⲁⲩϫⲁⲛⲓ (Early Bohairic [B4], Micah 5:4)
e[šô]p areša-ni-assurios a-u-šan-i
I[f] AUX\PROT:-ART:PL-Assyrian :PROT-3PL-:PROT-come\INF
'If the Assyrians come...'

[48] ⲙⲁⲣⲉⲛⲉⲧⲉⲛϩⲏⲧ ⲙⲁⲣⲟⲩⲕⲟⲧⲟⲩ (Early Bohairic [B4], Haggai 2:18)
mare-neten-hêt mar-ou-kot-ou
AUX/JUSSIVE:-POSS.ART.PL:2PL-heart :JUSS-3PL-turn\INF-3PL
'Let your hearts return...'

Converters

[49] ⲉⲣⲉⲛϩⲁⲓⲙ ⲉⲩⲧ ⲛⲟⲩⲏϥ (Oxyrhynchitic [M], Mt 14:24[61])
ere-n-haim e-u-ti nouê-f
CVB.IPFV:-ART:PL-wave :CVB.IPFV-3PL-give\INF against-3SG.M
'the waves being against it...'

58 I would like to thank Helmut Satzinger for referring me to this discussion, which had eluded me. See also Gardiner (^{3}1957: §463) and Polotsky (1965: 21).

59 For two extremely detailed accounts of the relevant phenomena in genetic, areal, and typological perspective, see Goldenberg (1977) and Raz (1989). Polotsky identified this feature as early as 1960, citing the typological similarities between Middle Egyptian and Amharic.

60 Cited in Bosson (2006: 286).

61 Cited in Bosson (2006: 298).

[50] ⲁⲣⲉⲉⲫⲣⲉⲙ ⲁⲫⲟⲓ ⲙⲫⲣⲏϯ ⲛⲟⲩⲭⲣⲟⲙⲡⲓ ⲛⲁϯⲉⲛⲧ (Early Bohairic [B4], Hosea 7:11)
are-ephrem a-f-oi mphrêti n-ou-crompi n-athêt
THMZ-Ephrem THMZ-3SG.M-do\CVB.STAT like PREP-a-dove PREP-foolish:
'It is like a stupid dove that E. is.'

[51] ⲛⲁⲣⲉⲡⲓⲇⲓⲁⲃⲟⲗⲟⲥ ϩⲱϥ ⲛⲁⲫⲟϩⲓ ⲉⲣⲁϥ (Early Bohairic [B4], Zechariah 3:1)
nare-pi-diabolos hôf na-f-ohi erat-f
SHF:-ART:SG.M-devil himself :SHF-3SG.M-stand
'The devil himself was standing...'

It should be pointed out that this means that the periphrastic perfect as a 'doubled inflection' auxiliary construction does not emerge *ex nihilo*, but is rather associated with a pre-existing grammatical construction, or a least a syntactic option.

Another, related construction used as an alternative perfect-marking strategy is the asyndetic pattern ⲁⲫⲟⲩⲱ ⲁⲫⲥⲱⲧⲡ, *afouô afsôtp*, which is a common serial-verb construction, especially in later and/or non-standardized texts.

[52] ⲁⲫϩⲓⲧⲟⲧϥ ⲁⲫⲙⲟϣⲓ (Nitrian Bohairic, Hyvernat 1886: 94)
a-f-hitot-f a-f-moši
AUX\PST.AFF-3SG.M-lay_hand\INF-3SG.M AUX\PST.AFF-3SG.M-walk\INF
'He began walking.' (lit. 'He began he walked.')

[53] ⲁⲛⲟⲩⲱ ⲙⲉⲛ ⲁⲛϩⲉⲓ (Kellis [L*], P. Kell. Copt. 25:8)
a-n-ouô men a-n-shei
AUX\PST.AFF-1PL-finish PTCL AUX\PST.AFF-1PL-write
'Now, we have already written' (lit. 'We finished we wrote')

[54] ⲁⲥⲟⲩⲱ ⲁⲥⲙⲟⲩ (Nitrian Bohairic, Lagarde 1886: 25:3)
a-s-ouô a-s-mou
AUX\PST.AFF-3SG.F-finish AUX\PST.AFF-3SG.F-die
'She has died (lit. 'She finished she died').'

[55] ⲁⲓⲟⲩⲱ ⲁⲓⲙⲁϣϑⲁⲙ ⲙⲡⲁⲣⲟ (Nitrian Bohairic, Lagarde 1886: 143:32)
a-i-ouô a-i-mašt^{h}am m-pa-ro
AUX\PST.AFF-1SG-finish AUX\PST.AFF-1SG-shut OBJ-my-door
'I have shut my door ('lit. 'I finished I shut my door').'

These constructions reflect a typologically common path to clause-union, much discussed by Givón (2001 & 2009), who considers there to be two primary source construction types, viz., embedding and clause chaining. The ⲁⲫⲟⲩⲱ ⲉⲫ- *afouô ef-* constructions reflect the former, while ⲁⲫⲟⲩⲱ ⲁⲫ- *afouô af-* reflects the latter. This is not as exploratory an innovation as it might seem: zero-conjunction constructions in Coptic are a prominent clause-chaining device.[62] Givón further observes that in specific languages, even if one type predominates, it is quite common to find the other type as well.

62 See, e.g., Shisha-Halevy (2007) for discussion.

Constructions with ϵ-+infinitive (‘*to*-infinitive’), as well as a single example of ογω + conjunctive[63] complicate the picture somewhat, but these are typical alternatives to the circumstantial in many argument slots. These constructions seem to be ‘exploratory innovations,’ and remain marginal.[64]

It may be observed that ‘doubled inflection’ constructions in Coptic constitute an isogloss with Earlier Egyptian, as opposed to pre-Coptic Later Egyptian.

Recalling Funk (1981) and Shisha-Halevy (1986), the system presented at the beginning of this paper can be re-stated:

TABLE 2: THE PRETERITE/PERFECT SYSTEM

	AFFIRMATIVE	NEGATIVE
PRETERITE	(ϩ)ⲁ- *(h)a-*	ⲙⲡ(ϵ)- *mp(e)-*
MARKED PERFECT	(ϩ)ⲁ- ογω ϵ- *(h)a- ouô e-*	ⲙⲡⲁⲧ(ϵ)- *mpat(e)-*

It should be observed that clear – and predictable – *layering* (Hopper 1991; Hopper & Traugott 1993: 124-126) effects are found, with the various stages of grammaticalization coexisting in specific corpora.

A final observation must be made before proceeding to further discussion. A rare construction is attested in some late Sahidic corpora from the Fayyum, namely, one in which ϵ-infinitive occurs rather than the circumstantial converb; this construction was noted briefly above.

[56] ⲉⲓⲥϩⲛⲏⲧϵ ⲅⲁⲣ ⲁⲓⲟⲩⲱ ⲉⲥϩⲁⲓ ⲙⲡⲉⲕⲣⲁⲛ ⲉⲡϫⲱⲱⲙⲉ ⲙⲡⲱⲛϩ (Sahidic, Sobhy 1919:11)
eishêête gar a-i-ouô e-shai m-pek-ran e-p-côôme m-p-ônh
PRES for AUX\PRF.AFF:-1SG-:PRF.AFF to-write\INF OBJ-POSS.ART.SG.M:2SG.M-name to-ART:M.SG-book of-ART-life
‘For I have written your name in the book of life.’

It is difficult to make any observations about this construction due to the paucity of examples. However, one may consider it to involve even greater internal syntactic cohesion than the more usual construction, due to the lack of ‘doubled inflection.’ This matter will be resumed in the discussion of Bohairic below.

5. Reanalysis vs. grammaticalization

As noted above, a small controversy has arisen regarding the relationship between reanalysis and grammaticalization. Many functionalists consider reanalysis to be a major component of grammaticalization (e.g., Hopper & Traugott 1993), while many linguists working in Chomskyan or other formalist frameworks view reanalysis as the primary process, with grammaticalization but an epiphenomenon (e.g., Harris &

63 These alternatives are noted in Crum (1939: 473b), but are extremely rare in texts.

64 It is interesting to note that ϵ- + INFINITIVE constructions as argument clauses diachronically precede the *more* finite imperfective converb (‘circumstantial’ conversion) in the same environment. This problem has never been especially noted.

Campbell 1995). Haspelmath (1998) takes a different approach, arguing that reanalysis and grammaticalization are in fact distinct processes, with the former playing a much more limited role than previously assumed. In this view, reanalysis and grammaticalization are distinguished by the following features (Haspelmath 1998: 327):

Grammaticalization	*Reanalysis*
loss of autonomy/substance	no loss of autonomy/substance
gradual	abrupt
unidirectional	bidirectional
no ambiguity	ambiguity in the input structure
due to language use	due to language acquisition

According to these criteria, it seems that the case of the periphrastic Perfect in Coptic involves grammaticalization rather than reanalysis, at least under this restricted definition of reanalysis. Furthermore, Haspelmath (1998: 334) argues that when dependency rather than constituency is examined, one often finds gradual changes in the internal bondedness of already-existing dependencies, which do not constitute reanalysis, since they do not change hierarchical relations. Similarly, bi-clausal constructions that become mono-clausal auxiliary-auxiliate constructions are considered grammaticalization rather than reanalysis, due to the gradualness of the process as well as the lack of significant changes in constituent structure (Haspelmath 1998: 335-336). This fits well with Jernstedt's original insight regarding the 'grammatical union' of the entire construction, as well as the conclusions drawn by Funk (1981) and Shisha-Halevy (1986).

However, in this model, it is not entirely clear what relationship exists between grammaticalization and analogical extension. It is evident that Haspelmath (1998: 336-337) considers them distinct, but he does not make explicit the way these distinct processes interact. In the case of the periphrastic Perfect, it must be made clear that while we are dealing with grammaticalization, the role of analogy to the pre-existing Auxiliary Constructions ('Tripartite conjugation') cannot be dismissed.

Moreover, to the extent that this analogical process did in fact play a role, the end result implies a syntactic reanalysis, especially insofar as one admits the analysis of ⲁⲫⲟⲩⲱ ⲉⲫⲥⲱⲧⲡ *afouô efsôtp* as involving a discontinuous auxiliary ⲁ- ⲟⲩⲱ ⲉ- *a- ouô e-*.

6. Excursus: notes on Bohairic-internal paths of grammaticalization

Comparing Early Bohairic to later Bohairic, one finds intriguing differences. First, yet another family of constructions is extensively attested in Bohairic, based on ⲕⲏⲛ *kên* ('suffice' > 'finish'). These constructions are: (a) ⲕⲏⲛ ⲉ- *kên e-* + INFINITIVE ('finish to do') and (b) ⲕⲏⲛ *kên* + CONVERB ⲉⲫ- *ef-* ('finish doing'), with considerable synchronic variation within one and the same text. It is interesting to note that (b) constructions are at an early stage of grammaticalization *as perfects*, since they are compatible with tense auxiliaries other than the Past (or 'Preterite') ⲁ- *a-*, and the lexical complement verb shows no 'structural code adjustment' of the type described above. Moreover, the two complementation options of ⲕⲏⲛ are best treated as synchronic 'layering,'

reflecting two co-existing stages of grammaticalization, the infinitive option being of reduced finiteness with respect to the circumstantial.[65]

ⲕⲏⲛ *kên* + ⲉ- *e-* + infinitive (‘*to*-infinitive’)

[57] ⲁⲩⲕⲏⲛ ⲉⲥⲓ ⲙⲡⲟⲩⲃⲉⲭⲉ (Nitrian Bohairic, Lagarde 1886: 14:13 [= Mt 6:16])
a-u-kên e-c^{h}i m-pou-bekhe
AUX\PST.AFF-3PL-finish to-receive\INF OBJ-POSS.ART.SG.M:3PL-wage
‘They have already received their wage.’

[58] ⲛⲁⲓ ⲅⲁⲣ ⲁⲩϣⲁⲛⲕⲏⲛ ⲉⲥⲱⲧⲉⲙ ⲉⲡⲥⲁⲝⲓ ⲙⲫⲏ (Nitrian Bohairic, Lagarde 1886: 133:20)
nai gar a-u-šan-kên e-sôtem e-p-saci m-p^{h}(nou)ti
DEM.PRON:PL for AUX\PROT:-3PL-:PROT-finish to-hear\INF OBJ-ART:M.SG-word of-God
‘For these ones, if they had listened to the word of God...’

ⲕⲏⲛ + converb (ⲉϥ-)

[59] ⲁⲩⲕⲏⲛ ⲉⲩⲥⲓ ⲙⲡⲟⲩⲃⲉⲭⲉ (Nitrian Bohairic, Lagarde 1886: 12:21)
a-u-kên e-u-c^{h}i m-pou-bekhe
AUX\PST.AFF-3PL-finish CVB.IPFV-3PL-receive OBJ-POSS.ART.SG.M:3PL-wage
‘They have already received their wage.’

[60] ⲁϥⲕⲏⲛ ⲉϥⲟⲓ ⲛⲛⲱⲓⲕ ⲉⲣⲟⲥ ϧⲉⲛⲡⲉϥϩⲏⲧ (Nitrian Bohairic, Lagarde 1886: 10:18 [= Mt 5:28])
a-f-kên e-f-oi n-nôik ero-s xen-pef-hêt
AUX\PST.AFF-3SG.M-finish CVB.IPFV-3SG.M-do\CVB.STAT PREP-adultery against-3SG.F in-POSS.ART.SG.M:3SG.M-heart
‘He has already been adulterous against her in his heart.

This path of grammaticalization from ⲕⲏⲛ *kên* ‘to be enough, to suffice,’ on the one hand, and ‘to cease,’ on the other, has not been investigated. As a participant in a grammaticalized periphrastic perfect, ⲕⲏⲛ *kên is* not attested in Early Bohairic. The predominance of ⲕⲏⲛ *kên* as opposed to ⲟⲩⲱ *ouô* in later Bohairic can be interpreted as a Bohairic-internal diachronic development, as can, perhaps, the extension from ⲕⲏⲛ ⲉ- *kên e-* ‘(it) suffices to/for’ to ‘cease’ and perfect meanings, depending on one’s understanding of the Late Egyptian material.

In general, where Early Bohairic has a ⲟⲩⲱ *ouô* construction, so does later Bohairic (e.g. Jn 19:33). On the other hand, some instances of the Early Bohairic Past ⲁϥⲥⲱⲧⲡ *afsôtp* correspond to later Bohairic Perfect ⲁϥⲟⲩⲱ ⲉϥⲥⲱⲧⲡ *afouô efsôtp* (e.g., Jn 13:2, 16:11). In other words, the functional range of ⲁϥⲟⲩⲱ ⲉϥⲥⲱⲧⲡ *afouô efsôtp* has expanded in later Bohairic, becoming less marked and more easily triggered, so to

65 Here an interesting question arises: in the context of embedded clauses, does reduced finiteness correspond in any necessary way with a more advanced stage of grammaticalization, or, in other words, does finiteness vary inversely with grammaticalization? It seems that this is not the case, on empirical grounds, since less finite forms sometimes chronologically precede more finite ones in the same environment (Polis 2009).

speak. Moreover, it is sometimes found with ϩⲏⲇⲏ *hêdê* ‘already.’ On the other hand, there are cases of Sahidic Perfect ⲁⲫⲟⲩⲱ ⲉⲫⲥⲱⲧⲡ *afouô efsôtp* corresponding to ⲏⲇⲏ ⲁⲫⲥⲱⲧⲡ *êdê afsôtp* (‘he already heard’) in Bohairic (e.g., Mt 17:12), or Sahidic ⲛⲧⲉⲣⲉⲫⲟⲩⲱ ⲉⲫⲥⲱⲧⲡ *nterefouô efsôtp* (‘having finished hearing’) corresponding to Bohairic ⲉⲧⲁⲫⲥⲱⲧⲡ *etafsôtp* (‘having heard’, e.g. Mk 15:20).

Also found in later Bohairic is the spread of the complex verb ϯⲟⲩⲱ *ti-ouô* for ‘to cease from X’ (Cat. Lk. 3:16, 12:36, Cat. 149:26), also unattested in early Bohairic; as such, there is a formal opposition between ⲟⲩⲱ *ouô* (constituent of the periphrastic perfect) and ϯⲟⲩⲱ *tiouô* for the lexical verb ‘to cease.’ It is interesting to note that ⲗⲟ *lo* (‘cease’), so characteristic of Sahidic, appears to be unattested in Bohairic.[66]

Furthermore, ⲟⲩⲱ *ouô* is not attested as a lexical verb meaning to ‘finish + noun,’ which is usually marked by ϫⲱⲕ ⲉⲃⲟⲗ *côk ebol* ‘to complete’ (e.g., Mt 7:28, 19:1, 26:1), at least in the Bohairic New Testament.

Finally, it should be pointed out that Late Egyptian *ḳnỉ* is considered by Winand[67] to have auxiliary status already in Late Egyptian, with infinitival complement. There are important grammatical and semantic differences between the Late Egyptian and Bohairic constructions. Nevertheless, this does constitute yet another ‘Bohairic-Late Egyptian isogloss’ of the type observed by Shisha-Halevy (1981); interestingly, it is one of the numerous cases of isoglosses that obtain between Late Egyptian and *later* Bohairic, as opposed to Early Bohairic. The specific grammaticalization path from pre-Coptic Egyptian to Bohairic still remains to be investigated, as do the Bohairic-internal ones.

7. Criteria for grammaticalization

Till this point, I have been using the term ‘grammaticalization’ in a somewhat informal sense, not having chosen one of its more common definitions to present as the one followed here. The reasons for this are two. First, the scope of grammaticalization is still up for grabs, so to speak, with serious criticism of the accumulated body of thought about the phenomena commonly associated with it. Second, it seems preferable to me to demonstrate the specific case of the Coptic Perfect, and only then to

66 It would be of some interest to consider the meaning of this distribution with regard to the Late Egyptian completive auxiliaries *ḳn* and *rwỉ*, among others. Another intriguing problem of diachrony involves *pḥ* as an aspectual and temporal auxiliary (Winand 2006: 341, 382), which is probably the source construction of the mostly Southern ‘verbal auxiliary’ ⲡϩⲛ- ‘to do once, manage to do, already do’ (Crum 1939: 282a; Funk 1978: 97, 100-101; Layton [2]2004: §184). Could ⲡϩⲛ- reflect Egyptian *pḥ.n*? While this might account for the presence of both a highly proclitic reduced form of ⲡⲱϩ as well as ⲛ- governing an infinitive, and would indicate an extremely early date of grammaticalization, it seems unlikely. Another possibility would be for it to be a Coptic-internal grammaticalization process, which is probably more plausible due to the coexistence of the non-proclitic construction ⲡⲱϩ ⲛ-.

67 Winand (2006: 338-347, esp. 340-341). The identity of Late Egyptian *ḳn* and Bohairic ⲕⲏⲛ *kên* has been disputed by Quack (2000), based on an alternative reading of Gardiner sign Aa8. In this view, Coptic ⲕⲏⲛ *kên* must be traced back to the rare Late Egyptin *ḳn r-* (to suffice, be enough for), which is also attested in Demotic. This would accord with the facts of Early Bohairic, and argue for a Coptic-internal functional development.

characterize it in terms of the usual parameters. This is intended to highlight what is particularly interesting about the phenomenon discussed here.

In Lehmann (1995), whose basic orientation is semiotic, the autonomy of the linguistic sign varies inversely with grammaticalization. Three aspects of autonomy are isolated, each cast on the paradigmatic and syntagmatic axes, resulting in six parameters of grammaticalization (Lehmann 1995: 109-110):

> A sign must have a certain **weight**, a property which renders it distinct from other members of its class and endows it with prominence in the syntagm. Second, autonomy decreases to the extent that a sign systematically contracts certain relations with other signs; the factor inherent in such relations which detracts from autonomy will be called **cohesion**. Third, a sign is the more autonomous the more **variability** it enjoys ... The weight of a sign, viewed paradigmatically, is its **integrity**, its substantial size, both on the phonological and semantic sides. Viewed syntagmatically, it is its structural **scope**, that is, the extent of the construction which it enters or helps to form. The cohesion of a sign with other signs in a paradigm will be called its **paradigmaticity**, that is, the degree to which it enters a paradigm, is integrated into it and dependent on it. The cohesion of a sign with other signs in a syntagm will be called its **bondedness**; this is the degree to which it depends on, or attaches to, such other signs. The **paradigmatic variability** of a sign is the possibility of using other signs in its stead or of omitting it altogether. The **syntagmatic variability** of a sign is the possibility of shifting it around in its construction.

In brief, the Coptic periphrastic Perfect answers to these parameters in the following way:

Integrity: no phonological reduction ('erosion') is perceptible in the construction; on the other hand, what is commonly called 'desemanticization'[68] is certainly observed in the shift from lexical to functional meaning; in the course of grammaticalization from COMPLETIVE > PERFECT, the positive semantic features of durativity, stativity and subject control over the event are lost.

Paradigmaticity: the periphrastic perfect is in the process of paradigmatization, as has been shown above, following the strong claim made by Shisha-Halevy (1986: 119). In short, it enters the Auxiliary ('Tripartite') Construction, albeit as an emergent member with only some or most of the distinctive features of the target paradigm. On the other hand, it retains very little of the distinctive features of the source construction, insofar as the lexical verb (ⲉⲭⲥⲱⲧⲙ) is concerned.

Paradigmatic variability: as has been shown above, new selectional restrictions are imposed on each of the parts of the construction; on the other hand, it displays little 'obligatoriness' (Lehmann 1995: 124), which is indicative of its marked status.

Scope: this conception has little meaning in a constructional approach, since it focuses on the individual element rather than the construction as a whole; an alternative will be discussed below.

68 This term has justly been criticized in the literature, including by Lehmann, and I use it here only for the sake of preserving a common term. It has become more usual to speak of 'pragmatic strengthening' or 'pragmatic enrichment.' This is roughly Givón's 'transfer of meaning from context to code.'

Syntagmatic variability: the sequencing of the parts of the periphrastic perfect construction is entirely fixed, with no alternatives possible; however, this is not especially distinctive for Coptic.

Bondedness requires somewhat more discussion. One of the common features of grammaticalization is an increase in the bondedness of internal dependencies (see for example, Haspelmath 1998, who considers it a definitional criterion for grammaticalization). Increased bondedness should be distinguished from the decrease of integrity that is called phonological reduction, although increased the former often leads to the latter. This is often realized, at the level of 'structural code adjustment' by the oft-observed reduction in phonological substance. However, it should be stressed that this is not the only symptom of increased internal bondedness, as can be seen from the case discussed here. However, even though we have represented a 'word division' between ⲁⲫⲟⲩⲱ *afouô* and ⲉⲫⲥⲱⲧⲡ *efsôtp* in the examples adduced above, it should be recalled that Coptic manuscripts are usually written in *scripta continua*, and modern conventions of representing Coptic text are often quite artificial. This in itself is not that important; what does seem somewhat important is that there is almost never anything between ⲁⲫⲟⲩⲱ *afouô* and ⲉⲫⲥⲱⲧⲡ *efsôtp*. Only very occasionally do negator ⲁⲛ *an* or enclitic particles occur between the two, and never in the most grammaticalized constructions. This might be taken as evidence for increased bondedness.

However, this is relatively trivial when compared to the fundamental fact observed already by Jernstedt (1927), namely, that the auxiliary (*Tempuscharakter*) extends over the entire construction, isolating only the infinitive in ⲉⲫⲥⲱⲧⲡ *efsôtp* as the realization of the lexical verb. This can only be interpreted as an overall increase in internal bondedness, whether or not one accepts the analysis suggested above, namely, that ⲁⲫⲟⲩⲱ ⲉⲫⲥⲱⲧⲡ *afouô efsôtp* becomes an emergent member of the Auxiliary Construction ('Tripartite Conjugation'), by means of grammaticalization and analogical extension.

It is interesting, from a typological perspective, that in the present case the increase in bondedness of this construction is most clearly indicated by changes in the morphological and syntactic properties of the lexical verb rather than the auxiliary itself.[69]

To summarize: our construction is characterized by a general decrease in the **weight** of its parts and in their **variability**, and a general increase in **cohesion** between them; as such, it is a clear case of grammaticalization. However, it can be observed no phonological reduction takes place, as far as we can know from written Coptic texts. I take this to show that phonological reduction is not the most important, or even most distinctive, parameter of grammaticalization; furthermore, I take it as support for the hypothesis that phonological reduction is in fact one of the later results of grammaticalization, and one that is contingent on the fulfillment of previous conditions.

69 See for example the general statement in Anderson (2006: 333), quoted above in full.

8. Motivations for the differential grammaticalization of the Perfect

The periphrastic Perfect is gradually grammaticalized as an auxiliary construction, with a single – albeit discontinuous – auxiliary. As noted above, there seems to be a matter of analogical extension, with the Auxiliary Construction ('Tripartite Conjugation') acting as model. This process is incomplete, in a sense, within Coptic, as the periphrastic perfect ⲁⲫⲟⲩⲱ ⲉⲫⲥⲱⲧⲡ *afouô efsôtp* remains at the 'doubled inflection' stage, which is only an alternative strategy for the other conjugation bases.

One might surmise that a possible systemic motivation is that the periphrastic construction fills a gap in the tense paradigm, as the affirmative correspondent to the negative ⲙⲡⲁⲧⲉⲫⲥⲱⲧⲡ *mpatefsôtp*, ('periphrasis for paradigm symmetry', Haspelmath 2000).

However, an explanation from paradigm symmetry seems to be overly deterministic, and is, in any event, unconvincing as a complete account. Moreover, as Hopper & Traugott observe, "Typically, grammaticalization does not result in the filling of any obvious functional gap. On the contrary, the forms that have been grammaticalized compete with existing constructions so similar in function that any explanation involving 'filling a gap' seems out of the question" (Hopper & Traugott 1993: 125). Nonetheless, their statement that "there is no obvious gap to be filled" (*ibid*.) seems too sweeping, since asymmetries (e.g., the asymmetry of affirmative and negative constructions) can nonetheless be interpreted as systemic gaps. In any event, this does not preclude the fact that grammaticalization may result in a gap being filled at the formal level of expression, thereby modifying the functional system of a language.[70]

As suggested at the beginning of this paper, it is possible to ask whether the differential grammaticalization of the periphrastic perfect is in fact motivated by the semantic shift from COMPLETIVE > PERFECT, since ⲁⲫⲟⲩⲱ ⲉⲫⲥⲱⲧⲡ *afouô efsôtp* signals a marked perfect already at Stage I. This is especially interesting when compared to the other periphrastic constructions (ⲗⲟ *lo*, ⲱⲥⲕ *ôsk*, ⲱⲡⲉ *šôpe*, etc.), which do not have a similar fate.

One might consider the possibility of iconicity as a contributing factor. The grammaticalization of the Coptic source construction, progressively in the direction of *syntactic integration*, is indicative of – and probably results from – the high degree of *event integration*.

> The stronger the semantic bond between the two events, the more extensive will be the syntactic integration of the two clauses into a single though complex clause.
> (Givón 2001: 40)[71]

70 I owe this last observation to Elsa Oréal (p.c. 12/2009).

71 Givón's present view on the role of iconicity as a motivating factor is somewhat different: "[I]conicity, while perhaps a fact or a result, is not a causal mechanism. The motivation of the early – instantaneous – functional change, in both language diachrony and bio-evolution, is clearly adaptive. In diachrony, it is clearly driven by direct communicative pressures. The protracted structural adjustment that follows is driven by different adaptive pressures & the mechanisms are different. Part of it is phonological (loss of resistance to de-stressing, then cliticization, then the subsequent phonological attrition of assimilation rules). Part of it has to do with automaticity of processing. [...] That the end result may indeed look 'iconic' is a wonderful epiphenomenon (in biology too), but still not a/the mechanism" (p.c. [e-mail], 12/2009).

Givón (2001: 59) considers 'start,' 'finish,' and 'make' to be at the top of the semantic scale of event integration, and as such, predicts that they will be 'co-lexicalized' before verbs lower on the scale (Givón 2001: 65). A parallel development is found in the Matsees language, in which the verb 'to finish' is grammaticalized as the perfect, and 'start' is following in its footsteps. Other verbs lower on the scale of event integration (e.g., 'want') are not yet co-lexicalized (*ibid.*). This situation is precisely what we find in Coptic: it is 'finish,' at the top of the scale, that undergoes grammaticalization earlier and more extensively than the other verbs found with the same argument clause.[72] This phenomenon was already seen clearly by Jernstedt (1927), who attributes the shift in object syntax to the 'grammatical union' of the construction.

An indication of the high degree of grammaticalization of the construction is the predominance of another lexical verb (Sahidic ⲗⲟ *lo*, Bohairic ϩⲏⲛ *hên*) for marking the more concrete lexical meaning 'finish, cease.'

Also interesting in this regard is the diachronic process that led to the majority of the Coptic auxiliary constructions ('Tripartite'), on the one hand, and the innovative Coptic periphrastic perfect, on the other: both involve what Givón calls equi-subject (SS) clause-union in embedding languages: looking at 'finish' in English and Ute, Givón says: "When the main verb ('finish') grammaticalizes into a perfect(ive) aspect, it becomes – at least initially – a finite auxiliary that remains, morphosyntactically, the main verb of the complex two-verb clause, as in English. When that auxiliary grammaticalizes, it becomes a prefix on the complement verb in a VO language, or a suffix in an OV language" (Givón 2001: 81).

As such, I would like to venture the proposal that the morphosyntactic 'structural code adjustment' observed in the present case is at least partially – if not primarily – motivated by the semantic shift from COMPLETIVE > PERFECT, from a complex event to a simple event. The linguistic encoding of this single event progresses in the direction of greater internal bondedness of dependencies, viz., greater syntactic integration, reflecting the increased event integration.

Another functional motivation was suggested by Shisha-Halevy, who proposed "functional suppression of the durativity feature ... manifested in the invalidation (or overruling) of the Stern-Jernstedt Rule."[73] It is worth considering to what extent the 'structural code adjustment' observed in the course of the grammaticalization of the periphrastic perfect is indeed motivated in part by an incompatibility of the durativity feature of the Bipartite Conjugation with the specific verbal semantics of the perfect. This explanation does not conflict with the explanation from event integration. In fact, both make the same assumptions about syntactic constructions as linguistic signs: just like other linguistic constructions, syntactic constructions vary along a scale of semantic compositionality. Grammaticalization, in this case, decreases the semantic compositionality of the construction as a whole, transferring the burden of signification from the components of the construction to the construction as a whole, a Gestalt. *Grammaticalization is therefore constructionalization*.[74]

72 This is mirrored by the differential grammaticalization of the inchoative *ḫpr*.

73 Shisha-Halevy (1986: 118), cited above in full.

74 This is in a sense but a rephrasing of Lehmann's rich account of the 'decreasing autonomy of the sign' through grammaticalization (1995: 109). However, Lehmann was primarily interested in the

However, one must consider another possibility. Recently, there has been an effort to explain grammaticalization in terms of frequency. Put succinctly, the more grammatical an element is, the greater its text frequency will be and the more predictable it will be in given syntagmatic contexts. Haspelmath, for example, argues that the more frequent (and hence, predictable) an element, the shorter it will be; similarly, the more frequent a construction, the greater the cohesion of its parts.

While frequentist explanations are often convincing, and as a rule, seem promising as a general paradigm, in the present case a frequency-based account does not give the right prediction. In no corpus in which ⲁϥⲟⲩⲱ ⲉϥⲥⲱⲧⲡ *afouô efsôtp* is attested, at any stage of its grammaticalization, is it anywhere near as frequent as the unmarked preterite ⲁϥⲥⲱⲧⲡ *afsôtp*. Over the entire corpus of written Coptic, its text-frequency is in general low, although there are some corpora in which it is well enough attested. In short, it remains till the end of written Coptic a largely 'exploratory innovation' rather than a strongly paradigmaticized construction.

Moreover, frequency-based explanations are by definition performance-based, and we are still in a very preliminary stage of understanding written performance by scribes and its relationship to spoken language varieties. The more common explanatory models of propagation of linguistic innovations, such as social network theory (Milroy 1987) or the 'invisible hand' theory (Keller 1994) are heavily oriented toward spoken language, and we must examine these models critically before we apply them to scribal texts, many of which are translations, which also ought to be factored in. In brief, we do not yet have a theoretical or methodological model for how linguistic innovations are authorized and propagated in scribal texts, although some solid work has been in this direction for European languages.[75] We must also admit that our knowledge of the sociolinguistic context in which most Coptic texts were produced is still lamentably poor.

Nonetheless, there is some evidence that such models might be useful. For example, while the most innovative periphrastic Perfect constructions are not necessarily found in the latest *corpora*, they do tend to cluster in certain areas. On the one hand, they are found in literary texts from the Fayyum and Middle Egypt, in dialects such as Fayyumic, Oxyrhynchitic, and Dialect *W*, as well as Early Bohairic, which Funk (1988) places in the southern Delta, close to the Fayyum. As noted, these constructions are also well attested in the Sahidic texts from the monasteries of the Fayyum in the post-Conquest period. These texts are written in language varieties strikingly different from that of Shenoute and the Sahidic Bible. This fact reflects the process of the *destandardization* of Sahidic after the Arab conquest, and the subsequent reconstitution of local prestige varieties, among which the Fayyumic varieties were certainly

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isolated element as the locus of grammaticalization. As such, he only hinted at the result of the decreasing autonomy of individual signs, as I have suggested above, in a constructional perspective, the decreasing autonomy of individual signs through grammaticalization results in the increase of the semiotic weight of the construction as a whole. This should not be taken as an endorsement of a 'bottom-up' approach to syntactic constructions: on the contrary, it is not that morphemes 'build up' constructions, but rather that constructions are primary linguistic signs, and their parts are the result of analysis of the constructions.

75 See for example Bergs (2005), which is the best representative of contemporary historical sociolinguistics.

among the most prestigious, despite their non-standard appearance.[76] In short, we encounter the most grammaticalized constructions in texts at the margins of standardization of written Coptic varieties, largely within a fairly circumscribed region.[77] Given more research on the scribes of this region and the institutions in which they were active, it might be possible to trace patterns of change in written texts.

As such, it might be possible to study the propagation of linguistic innovations, such as the various stages of grammaticalization of the periphrastic perfect, with methods developed by historical sociolinguistics, but for now it appears premature to invoke the performance-based models which permit frequentist explanations. In posing questions about language change in corpus languages, we should emphasize and attempt to objectivize the difficulties rather than gloss them over.[78]

Finally, it should be pointed out that we have here an intriguing case of a linguistic cycle of grammaticalization that can only be understood if the constructions as a whole are taken into account:

- In Demotic, a construction comprising a finite lexical verb with infinitival complement is grammaticalized as an auxiliary-auxiliate construction marking a Perfect – Construction (a) *wꜣḥ-f-stp*.
- A competing construction arises, in which the same auxiliary occurs, but the auxiliate is encoded as a converb ('Circumstantial Present') – Construction (b) *wꜣḥ-f ỉw-f stp*.
- Construction (a) becomes the unmarked past and is levelled together with *ỉr-f-stp*. This permits the occurrence of the lexical verb ⲟⲩⲱ *ouô* (< *wꜣḥ*) in the infinitive slot, e.g., (ϩ)ⲁⲫⲟⲩⲱ (*h)afouô*.
- The complement of this construction is the converb ⲉⲫⲥⲱⲧⲙ *efsôtm*, with sporadic and very rare alternatives later on. This construction (ϩ)ⲁⲫⲟⲩⲱ ⲉⲫⲥⲱⲧⲙ (*h)afouô efsôtm* is further grammaticalized as a periphrastic perfect, eventually becoming a 'doubled inflection' auxiliary construction.

In short, the verb *wꜣḥ* undergoes two distinct grammaticalization paths:

1. It is grammaticalized as a perfect auxiliary (*wꜣḥ-f*), and later, as an unmarked past, where it undergoes various degrees of phonological erosion in the different dialects. The infinitive ⲟⲩⲱ *ouô* 'to finish, cease' continues to occur in a variety of constructions as a lexical verb.
2. One of these constructions, the completive (ϩ)ⲁⲫⲟⲩⲱ ⲉⲫⲥⲱⲧⲡ (*h)afouô efsôtp* is later grammaticalized as a new periphrastic Perfect. The lexical verb ⲟⲩⲱ *ouô* is grammaticalized as part of the new Perfect auxiliary, with significant consequences for the syntax of the construction as a whole.

76 In the post-Conquest Fayyum, we observe considerable convergence between Sahidic and Fayyumic, with texts putatively written in 'Sahidic' or 'Fayyumic' showing a cline of mutual influences at nearly every linguistic level. This has often been noted in text editions, but 'Fayyumicized Sahidic' and 'Sahidicized Fayyumic' have never been studied in their own right.

77 In this context, it is worth recalling the late Fayyumic Demotic construction discussed above.

78 One such difficulty, which goes entirely unexplored in the present discussion, is the potential role of language contact in inducing or catalyzing grammaticalization. It is left out here mainly because I do not see any indications of its relevance for this particular instance.

This is the 'diachronic spiral' suggested by Shisha-Halevy. The present case may be considered a case of 'polygrammaticalization,' wherein "a single form develops different grammatical functions in different constructions" (Craig 1991, Hopper & Traugott 1993: 112). However, these paths interact with each other and with the grammatical subsystems in which they are embedded, such that a grammaticalization cycle emerges, both at the formal level and at the functional level, viz., the PRETERITE-PERFECT cycle mentioned at the beginning of this article.

9. Concluding remarks

It is often said that grammaticalization is a gradual process that proceeds in small steps and with much synchronic variation. However, many linguists still refer to a given element as 'already grammaticalized,' and in Egyptian linguistics it is still the isolated element that is considered rather than the construction as a whole. I have tried here to show a process of grammaticalization and its syntactic consequences at work, proceeding in small steps and with much variation. The periphrastic Perfect in Coptic already set down the road of grammaticalization from the moment a completive construction marks a perfect tense. However, this grammaticalization process keeps going, with ever-increasing internal bondedness, as Jernstedt noted. In the latest stage attested, the periphrastic Perfect has most of the syntactic properties of an Auxiliary Construction ('Tripartite Conjugation'), but it is nonetheless an *emergent* member of this paradigm, as it is still quite marked, semantically and in terms of text-frequency, and shows little context-expansion. Moreover, it shows 'doubled inflection,' which is a marked syntactic option in all corpora. Whether it was an exploratory innovation or a well-entrenched construction in Coptic speech, but was kept out of the written language for some reason, can only be the object of speculation at this point.

The periphrastic Perfect is but an example of the auxiliary verb constructions in Coptic in general. Like all of the Later Egyptian auxiliary constructions, it is *grammaticalizing* rather than grammaticalized. As such, it is found somewhere on the continuum between lexical verb and auxiliary verb, on the one hand, and auxiliary verb and TAM marker, on the other (whatever the analytical value of the latter term may be).

It should be stressed that the linguistic diversity and variation found in the Coptic dialects should be taken seriously, not only in synchronic descriptions of Coptic but in diachronic studies of Egyptian. Coptic has its own diachronies, and these diachronies have their own relations with previous phases of pre-Coptic Egyptian. Paths of grammaticalization and other diachronic processes seem to 'get lost' after a certain phase of Egyptian, only to be resumed again in some – usually neglected – variety of Coptic.

* Notes on transliteration

As stated in the introduction, the transliteration here is intended to have a one-to-one correspondence with the Coptic text, and is offered only in order to provide a basis for the glosses. The transliteration should be self-explanatory, apart from the following:

ϵ	e	Ⳮ	c
ⲏ	ê	ϭ (Bohairic)	c^h
o	o	ϭ (other dialects)	k^y
ⲱ	ô	ⲃ	x

/c/ is intended to reflect a palatal stop or affricative /ʈʃ/. The distinction between /e/ and /ê/, on the one hand, and /o/ and /ô/ is a matter of interpretation; the present choice indicates a lack of commitment (due to a lack of direct relevance) to any one phonological analysis.

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