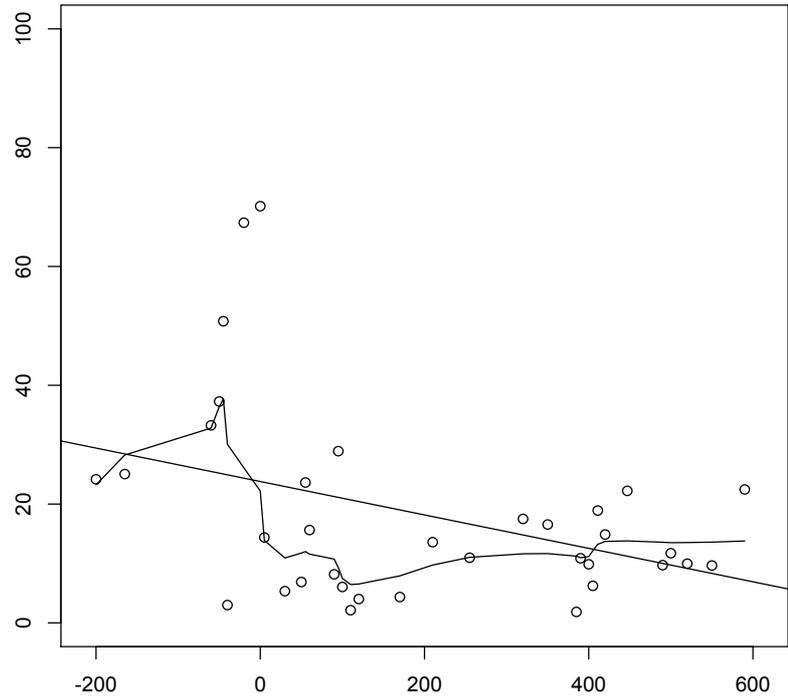
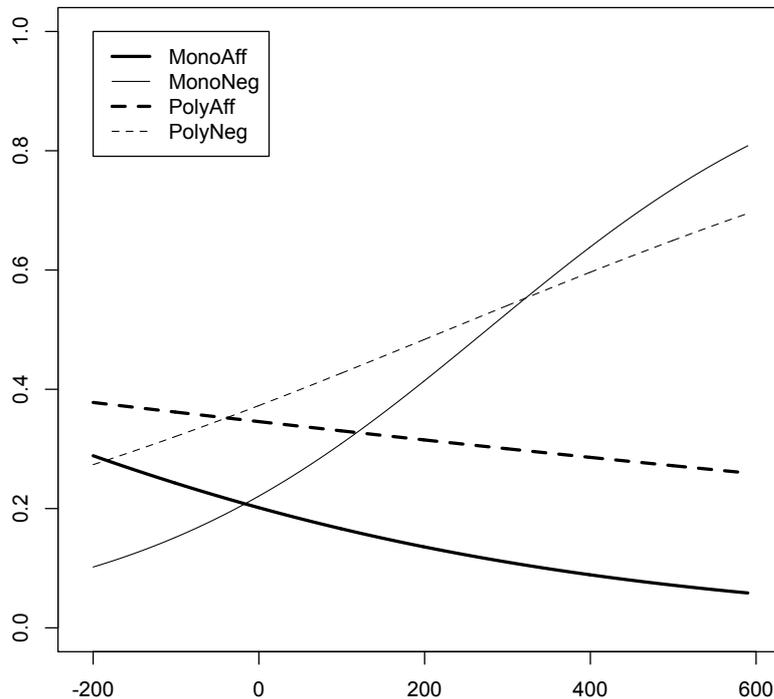


The syntax-prosody mapping in a dead language: the case of Late Latin BE-periphrases

1. The core data The starting point of this paper is the observation that Late Latin (ca. 200-600 AD) periphrastic verb forms with a (non-perfective) BE-auxiliary and a past participle show a strong preference for the head-final order ‘PaPa - BE’ (Graph 1). This evolution can be considered surprising, given the otherwise general evolution from a mixed head-initial/head-final TP in Latin, to an exclusively head-initial TP in Romance. In contrast, Late Latin combinations of a modal verb and an infinitive do in fact favour the head-initial order (AUTHOR 2016), as expected.



Graph 1: Overall relative frequency of the order ‘BE-PaPa’ over time.



Graph 2: Predicting the occurrence of the order ‘BE-PaPa’.

2. Factors influencing word order As shown in Graph 2, two factors that influence word order in BE-periphrases are (i) the number of syllables of the auxiliary and (ii) the presence or absence of sentential negation. First, in Late Latin affirmative clauses the order ‘BE - PaPa’ is more likely to obtain with monosyllabic than with polysyllabic auxiliaries. This suggests that word order in BE-periphrases is at least partly governed by phonological factors. Second, in negated clauses the order ‘BE - PaPa’ is heavily favoured, but this is only so in later centuries. Note finally that in clauses with a modal verb

negation does not have any effect on word order (data not shown).

3. Evidence from Late Latin prose rhythm Interesting clues concerning the phonological status of (Late) Latin BE come from prose rhythm, i.e. the predilection of most literary prose authors to map the end of a sentence (‘period’) onto certain rhythmical patterns, called

‘clausulae’. As observed by Havet (1892), in Late Latin clause-final monosyllabic forms of non-copular BE can appear after the end of a clausula, apparently not taken into account for metrical (rhythmical) purposes (see also Di Capua 1914, 1937; Hagendahl 1937; Holmes 2015). In (1), the clause-final auxiliary *sunt* ‘they are’ thus appears after the molossus (i.e. a sequence of three heavy syllables) that rounds off the clausula:

- (1) — — — — — — ||
poll-uis-se mentit-i sunt
violate-PFV.INF lied-NOM.M.PL be.PRS.3PL
‘they lied that [I] violated [my conscience]’ (= Boeth. Cons. 1.4)

Importantly, in earlier authors it was not possible for auxiliary BE to appear after the end of a clausula. I take it that the data from prose rhythm further support the hypothesis that the difference between Classical and Late Latin BE-auxiliaries is phonological in nature.

4. Affirmative clauses: ‘weak BE’ To account for the general preference for Late Latin BE-periphrases to be head-final in affirmative contexts, and taking into account the facts from prose rhythm, I propose that in Late (but not Classical) Latin, auxiliary BE is phonologically weak, in the sense that it does not always constitute a prosodic word. More precisely, I characterize weak BE as a ‘free functional element’ (Zec 2005), which is subject to the PF constraint in (2). Given (2), only (3c) constitutes a licit phonological representation.

- (2) Weak BE can only survive as a single foot (F) at the level of the prosodic word (ω) if it appears at the right edge of a phonological phrase (ϕ), where it counts as extrametrical.

- (3) a. * ϕ
 F ω ω
b. * ϕ
 ω F ω
c. ✓ ϕ
 ω ω <F>

The word order facts can then be explained as follows. Either the syntax produces the head-final order ‘PaPa - BE’ (a unit which forms a single p-phrase), in which case the PF requirement on weak BE is always met. XPs to the right of the sequence ‘PaPa - BE’ can be taken to be extraposed, and thus mapped onto an independent prosodic unit. Alternatively, we get the head-initial order ‘(XP -) BE - PaPa’. Assuming that XP is either a subject or a left-peripheral topic or focus, both of which constitute p-phrases of their own, this structure constitutes an ill-formed PF object, in which weak BE does not occur at the right edge of a p-phrase. I take it that in such cases a postsyntactic PF filter rules out the string ‘[ϕ XP] [ϕ BE - PaPa]’, resulting in the Late Latin preference for the order ‘PaPa - BE’. Assuming that disyllabic free functional elements can be mapped onto an independent p-word (Zec 2005), we correctly predict the effect of (2) to be stronger with monosyllabic BE-auxiliaries.

4. Negated clauses: Neg-incorporation With AUTHOR (2016), I assume that in Late Latin the negator *non* is always proclitic to the hierarchically highest verb. Importantly, this process is not merely phonological, but involves syntactic head movement (and right adjunction) of T to Neg. Under the standard assumption that syntax precedes phonology, we can take it that the complex syntactic head ‘Neg - weak BE’ is canonically mapped onto an independent p-word. As a result, (2) does not apply to weak BE in negated contexts, and both the orders ‘PaPa - Neg - BE’ and ‘Neg - BE - PaPa’ are well-formed. The Late Latin predominance of the latter simply reflects the general transition towards a head-initial T-node (cf. present day Romance). In other words, negation licences the order ‘BE - PaPa’, it does not trigger it.

References (selected) AUTHOR 2016. *The Latin verb phrase: existence, structure and diachronic development*. Book ms., under contract with OUP | Havet 1892. *La prose métrique de Symmaque*. Paris: Bouillon | Zec 2005. Prosodic differences among function words, *Phonology* 22, 77-112.