# ENCYCLOPEDIA OF ANCIENT GREEK LANGUAGE AND LINGUISTICS

Volume 3 P–Z, Index

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LEIDEN • BOSTON 2014

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rule may disappear and morphology can come to govern the alternation.

This must have been the case with ablauting grades in nominal and verbal morphology. Although the question remains controversial (see, e.g., Meier-Brügger 2003:144–152 and Clackson 2007:71–74), ablaut ( $\rightarrow$  Ablaut/Apophony) possibly originated in early PIE as a phonetic alternation and was subsequently phonologized, and then employed as a morphological device. In Greek the ablauting grades, as found, e.g., in the various tenses of the verb (pres.  $leip\bar{o}$  'leave', aor. elipon, pf. leloipa) are no longer phonologically governed.

#### BIBLIOGRAPHY

Anderson, James M. 1973. Structural aspects of language change. London.

Bermúdez-Otero, Ricardo. 2007. "Diachronic phonology". In: *The Cambridge handbook of phonology*, ed. by Paul de Lacy, 497–517. Cambridge.

Bermúdez-Otero, Ricardo and Richard M. Hogg. 2003. "The actuation problem in optimality theory". In: *Optimality theory and language change*, ed. by D. Eric Holt, 91–119. Dordrecht.

Bynon, Theodora. 1977. Historical linguistics. Cambridge.

Christidis, A.-F., ed. 2007. A history of Ancient Greek from the beginnings to Late Antiquity. Cambridge.

Clackson, James. 2007. *Indo-European linguistics*. Cambridge.

Crowley, Terry and Claire Bowern. 2010. *Historical linguistics*. Oxford – New York.

Hock, Hans H. 1986. *Principles of historical linguistics*. Berlin – New York – Amsterdam [2nd ed. 1991].

Hoenigswald, Henry. 1960. Language change and linguistic reconstruction. Chicago.

Lejeune, Michel. 1972. Phonétique historique du mycénien et du grec ancien. Paris.

Meier-Brügger, Michael. 2003. *Indo-European linguistics*. Berlin – New York.

Rix, Helmut. 1976. Historische Grammatik des Griechischen. Laut- und Formenlehre. Darmstadt.

Salmons, Joseph. 2010. "Segmental phonological change". In: *The Continuum companion to historical linguistics*, ed. by Silvia Luraghi and Vit Bubenik, 89–105. London.

Sihler, Andrew L. 1995. New comparative grammar of Greek and Latin. Oxford – New York.

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## Phonological Phrase

The phonological phrase  $(\phi)$ , also known as the *minor phrase* or *minor phonological phrase*, is the layer of prosody immediately beneath the intonational phrase that combines  $\rightarrow$  prosodic words and  $\rightarrow$  clitic groups into a single prosodic unit (Nespor & Vogel 1986:165–186; Selkirk 1980, 1986;

Horne 1986; Devine & Stephens 1990; Truckenbrodt 1995, 1999; Devine & Stephens 1994:377). Metrically, the phonological phrase affects verse structure (Devine & Stephens 1994:398–401) and generally corresponds to the hemistich or halfline (Devine & Stephens 1994:398, 400; Golston & Riad 2000):

 [ốptēsán te periphradéōs]φ [erúsantó te pánta]φ

'They roasted [spits of meat] carefully and drew them off' (Hom. *Od.* 14.431)

This is not of course the case in every line of verse (Devine and Stephens 1994:400).

While the prototypical syntactic correlate of the phonological phrase is a  $\rightarrow$  noun phrase, → verb phrase, or adjective phrase, i.e., a lexically-headed XP, it goes without saying that deducing prosodic constituency solely on the bases of corpus data is a delicate affair. There are nevertheless correlates that enable us to detect the boundary of a phonological phrase. These come above all from metrical phenomena and inscriptional punctuation. Devine and Stephens (1994:240, 246, 383) demonstrate on the basis of Euripidean evidence that onset-to-coda resyllabification (V.CC  $\rightarrow$  VC.C; known in the philological literature as lengthening by position: → Syllable Weight) of word-initial *s*+stop is licit when the second word is part of the verb phrase, and avoided when it is not: polloùs ólese stratēlátās 'destroyed many generals' at Supp. 162 the verb and object are syllabified *ó.le.ses.tra.tē.lá.tas*. Clusters of s+stop need the greater rhythmic cohesion of a phonological phrase for resyllabification, whereas clusters of s+stop+liquid do not (Devine & Stephens 1994:246). The → elision of final vowels before a vowel-initial preposition is more common with intraphrasal sequences like ephthénxat' eis hēmâs 'uttered against us' at Phoen. 475 (Devine & Stephens 1994:384).

Onset-to-coda resyllabification also obtains outside of verb phrases, e.g. strings of noun+adjective (e.g.,  $m\'elana\ stolm\`on\ 'black\ apparel'$  at  $Alc.\ 216\ scans\ as\ m\'e.la.nas.tol.m\`on)$ , noun phrases with branching  $\rightarrow$  modifiers ( $\'en\ t'\ \'ommasi\ skuthr\~op\'on\ 'and\ in\ appearance\ sullen'\ at\ Bacch.$  1252 scans  $\'om.ma.sis.ku.thr\~o.p\'on)$ , as well as two modifiers that modify the same head but do not themselves form a constituent ( $semn\`a\ stemm\'at\~on\ must\'eria\ 'holy\ implements\ of\ garlands'\ at\ Supp.\ 470\ scans\ sem.n\`as.\ tem.m\'a.t\~on).$ 

Remarkably, resyllabification can also take place between adjacent items that do not form a constituent, e.g. in the combination of noun phrase plus noun phrase *toîsi prágmasi skóton* 'darkness over the matters' at *Ion* 1522. Cf. Devine & Stephens (1994:397) for inscriptional evidence.

While generative approaches to syntax as well as other traditions that break the clause down into a subject+predicate structure generally assume that the subject of a verb phrase is more loosely integrated in the phrase structure than the object, evidence from resyllabification suggests that it is also possible for a subject and verb to form a phonological phrase (Devine & Stephens 1994:386-387). For a verb-subject string to form a phonological phrase "cohesive enough for coda resyllabification to apply, the verb must be in sole contact with the subject phrase and not in contact on its left with any lexical element of the verb phrase; furthermore, a subject noun undergoing resyllabification must not be followed by any element of the subject phrase" (Devine & Stephens 1994:387; cf. 392). In short, what this means is that V and S must be syntactic sisters, as well as immediately dominated by the clausal node. For phrasing of SV together as a phonological phrase in Spanish, see Prieto (2006).

As Devine and Stephens note (1994:388), metrical evidence reveals tendencies, but does not allow an exhaustive parsing of an actual stretch of text. Inscriptional evidence both confirms and supplements what we deduce from metrical texts. There are some philological caveats to bear in mind, however. First, punctuation can be used to mark off prosodic constituents of varying sizes, from the → clitic group (Devine & Stephens 1994:326-330) to the phonological phrase (for the texts, see Devine & Stephens 1994:388) to the intonational phrase. The function of punctuation can even shift within the same text (Devine & Stephens 1994:389). Generally speaking, the phonological phrase is based on phonologically, as opposed to syntactically, branching structures (Devine & Stephens 1994:391-393): a phonological phrase can be built from headmodifier and modifier-head structures, from two words that simply form a constituent, and from more complex structures such as a branching prepositional phrase, e.g. IG I<sup>3</sup> 45.16-17 ek tes phules tes prutaneuoses. Interestingly, when two branching constituents occur on either side of a verb, they can each be coded as a phonological phrase without the verb: *talanton k' arguro*: *apotinoian*: *toi Di Olunpioi* (Devine & Stephens 1994:393). For further details, see Devine & Stephens (1994:388–397).

Certain sandhi phenomena also take place within the phonological phrase, such as the assimilation of final -r and -s to an initial d- in the  $\rightarrow$  Gortyn Code from Crete (see Devine & Stephens 1994:397–398, with references to earlier literature; more generally, Nespor and Vogel 1982, Reece 2009). In Attic, assimilation of a final nasal to a following initial consonant is most common in clitic groups, but also occurs across clitic groups as long as they occur within the same phonological phrase.

A further effect of phonological phrasing is phrase-final lengthening: the preferance for durationally longer syllables in metrical positions that fall at the end of a phonological phrase is argued to reflect final-lengthening (Devine & Stephens 1994:274, 401–402; → Metrics). Evidence from musical notation suggests that within catathesis domains, a slight boost in pitch occurs at the beginning of the phonological phrase (Devine & Stephens 1994:402–408). Inscriptional evidence suggests that information structure, especially → focus, can alter phonological phrasing. Devine and Stephens (1994:478) cite possible examples, as well as cross-linguistic evidence. This question is in need of further research.

Taylor (1996) argues that in  $\rightarrow$  Koine Greek enclitics associated with noun phrases are sensitive to phonological phrase boundaries. So in the following two examples, we have in one case syntactically-conditioned clitic distribution (2) and in the other prosodically-conditioned clitic distribution (3). The NP t encodor n below is assumed to form a phonological phrase, which the possessive clitic sou adjoins syntactically to at the left edge, i.e. [=sou t encodor n as t encodor n and t encodor n and

(2) eàn dè miánēis [tèn sárka=sou]φ
 'If you defile your body...' (Shepherd of Hermas, Similitude 5.7.2)

As the boundary of the phonological phrase lies immediately to the left of sou, it is blocked from finding its host by adjoining leftwards. Instead, it undergoes prosodic inversion (Garrett 1989, Halpern 1995), whereby it moves one prosodic word to the right, to yield the surface form (tensity) tensity tens

cover every distribution pattern of NP-domain clitics, as (3) makes clear, from Taylor (1996:494):

(3) kaì peisthésontaí=sou toîs rhémasin 'And they will trust your words' (Shepherd of Hermas, Mandate 12.3.3)

The prediction is that sou should undergo prosodic inversion and occur after rhémasin, but this is not what we find. Taylor argues that cases like (3) are the result of an optional phonological phrase restructuring process, the result of which is that toîs rhémasin does not form a phonological phrase, so that there is now no boundary blocking the leftward association of sou. Her analysis is inspired by that of Nespor and Vogel (1986) for raddoppiamento sintattico in Italian, whereby word-initial consonants are geminated. They argue that the gemination occurs within the phonological phrase, but does not occur under phonological-phrase restructuring (cf. Absalom & Hajek 2006). Taylor (2002) extends her prosodic account to include pronominal object clitics. Agabayani and Golston (2010) also argue for the phonological phrase as a domain of for second-position items (see further → Wackernagel's Law I).

#### BIBLIOGRAPHY

- Absalom, Matthew and John Hajek. 2006. "Raddoppiamento sintattico and prosodic phonology: a re-evaluation". In: *Proceedings 2005 Conference of the Australian Linguistics Society*, ed. by Keith Allan, 1–14. Monash.
- Agbayani, Brian and Chris Golston. 2010. "Second-position is first-position: Wackernagel's Law and the role of clausal conjunction", *Indogermanische Forschungen* 115:1–21.
- Devine, Andrew M. and Laurence D. Stephens. 1990. "The Greek phonological phrase", *Greek, Roman, and Byzantine Studies* 31:421–446.
- Garrett, Andrew J. 1989. "Ergative case assignment, Wackernagel's Law, and the VP base hypothesis". In: *Proceedings* of the North East Linguistics Society (NELS) 19, ed. by Juli Carter and Rose-Marie Déchaine, 113–126. Amherst, MA.
- Golston, Chris and Tomas Riad. 2000. "The phonology of Classical Greek meter", *Linguistics* 38.1:99–167.
- Halpern, Aaron. 1995. On the placement and morphology of clitics. Stanford.
- Horne, Merle. 1986. "Focal prominence and the "phonological phrase" within some recent theories", *Studia Linguistica* 40:101–121.
- Keating, P., T. Cho, C. Fougeron, and C. Hsu. 2003. "Domain-initial articulatory strengthening in four languages". In: *Phonetic Interpretation* (Papers in Laboratory Phonology 6), edited by J. Local, R. Ogden, R. Temple, 143–161. Cambridge.
- Nespor, Marina and Irene Vogel. 1982. "Prosodic domains of external sandhi rules". In: *The structure of phonological*

- representations, ed. by Harry van der Hulst and Norval Smith, vol. 1:222–255. Dordrecht.
- ---. 1986. Prosodic phonology. Dordrecht.
- Prieto, Pilar. 2006. "Phonological phrasing in Spanish". In: *Optimality-theoretic advances in Spanish phonology*, ed. by Sonia Colina and Fernando Martínez-Gil, 39–60. Amsterdam – Philadelphia.
- Reece, Steve. 2009. Homer's winged words: the evolution of early Greek epic diction in the light of oral theory. Leiden.
- Selkirk, Elisabeth O. 1980. "Prosodic domains in phonology: Sanskrit revisited". In: *Juncture*, ed. by Mark Arnoff and Mary L. Kean, 107–129. Saratoga, CA.
- ——. 1986. "On derived domains in sentence phonology", *Phonology Yearbook* 3:371–405.
- Taylor, Ann. 1996. "A prosodic account of clitic position in Ancient Greek". In: Approaching second: second position clitics and related phenomena, ed. by Aaron L. Halpern and Arnold M. Zwicky, 477–503. Stanford.
- ——. 2002. "The distribution of object clitics in Koiné Greek". In: *Indo-European perspectives*, ed. by Mark R. V. Southern, 285–315. Washington, DC.
- Truckenbrodt, Hubert. 1995. Phonological phrases: their relation to syntax, focus, and prominence. Doctoral dissertation, MIT.
- —... 1999. "On the relation between syntactic phrases and phonological phrases", *Linguistic Inquiry* 30:219–255.

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## Phonology (Survey)

#### 1. Introduction

An overview of Ancient Greek phonology necessarily ranges over some centuries and a variety of dialects ( $\rightarrow$  Dialects, Classification of,  $\rightarrow$  Dialectology (diálektos), Ancient Theories of), so that historical references and comparisons are unavoidable. Thus, the developing segmental system (via the relevant isoglosses) is outlined here up to Class. Attic of the 5th to 4th c. BCE. Through its political and intellectual hegemony at that time, Athens was destined to take over and develop further to a unified Greek language. To this,  $\rightarrow$  Ionic dialect features and civilization contributed too.

The first documentation in alphabetic writing begins in the 8th c. BCE with a reference to athletic games. After the decipherment of → Linear B (Ventris & Chadwick 1953) the attestation of Greek now goes back some centuries to → Mycenaean Greek, in syllabary writing and representing a form of Greek perhaps of the 16th c. BCE for Crete and of the 14th–12th c. BCE for Pylos. This attestation stops around the 12th c. BCE due to a sudden change in the civilization. It is not clear if the homogeneity between Pylos, Mycenae and