

Lenition and resyllabification in Greek morphophonology: A case for Stratal OT

Eirini Apostolopoulou (UiT) & Martin Krämer (UiT)

In Standard Greek, word-internal Obstruent–Nasal (ON) clusters are almost unanimously analyzed as complex onsets by default, by virtue of their sonority profile (Kappa 1995; Malikouti-Drachman 2001; Tzakosta & Karra 2007, etc.; cf. Malikouti-Drachman 1987; Gratsouni & Topintzi 2020). What remains largely unaddressed, however, is that the realization of contrastive manner and laryngeal features of the O is conditioned by the morphosyntactic environment in which these clusters occur. Manner and laryngeal distinctions in the first member of ON are preserved within roots as well as at specific morphological boundaries, i.e., between the prefix /ek/ and a root starting with N, and between a verbal stem and the aspect affix /n(i)/. However, [–voi] and [–cont] cease to be licensed and thus distinctions are neutralized in a stem-final O meeting a N that belongs to a categorizer. More precisely, independently of its underlying form, an O at the end of verbal stems surfaces exclusively as a voiced fricative in participles and deverbal nouns, i.e., before the suffix /men/, which forms adjectives/participles, and the nominalizing suffixes /mós/ and /ma/. For illustration, consider the realization of the dorsal phonemes /k, x, ɣ/ in (1) (dashes represent the morphological boundary under examination; other boundaries have been omitted for simplicity). At the postlexical level, lenition is optional (2).

We argue that resyllabification of heteromorphemic ON is blocked when N is categorizer-initial. Consequently, neutralization of the coda O is triggered, achieved via spirantization and/or voice assimilation (see Steriade 1997; Lombardi 1999). Adopting the sonority hierarchy in (3) for Greek, we assume that the Syllable Contact Law (SCL; Murray & Vennemann 1983; Krämer 2000; Gouskova 2001) requires that sonority may rise by at most +1 across syllables.

Fleshing out a suggestion by Malikouti-Drachman (1987), we propose a constraint-based analysis within Stratal Optimality Theory (Kiparsky 2000, 2015; Bermúdez-Otero 2018), in which lenition applies to the derived ON sequences at the word level, while the process is switched off (via the reranking of the responsible constraints) at the stem level, and is optional at the postlexical level. Heterosyllabic ON with sonority distance (SD) more than +1 violate SCL(+1), which returns one violation for every 0.5 of excessive SD. For example, [k.m] (SD=+3) incurs more violations than [ɣ.m] (SD=+2), as syllable contact is better, although not perfect ($\leq +1$). Morpheme boundaries between verbal stems and categorizers correspond to syllable boundaries, with syllabification across these morpheme boundaries violating a CRISPEGE constraint (Ito & Mester 1999) ('morpheme edges and syllable boundaries coincide') at the word level.

Stem-internally, O is syllabified with N in the onset and surfaces faithfully, since any manipulation of its features fatally violates either IDENT constraints or SCL(+1) (4). However, the ON complex onset is ruled out at the word level by CRISPEGE. The decision is then in the hands of the gradiently violated SCL(+1). The winner contains a voiced fricative, which secures the best syllable contact among the available options (5). At the postlexical level, free variation occurs because CRISPEGE and SCL(+1) are mutually unranked. Partial constraint orders result in random ordering, which causes free variation if the mutually unranked constraints are in direct conflict (Anttila 1997, 1998).

The proposed analysis is compared with the Multiple Spell-Out Hypothesis (Uriagereka 1999; Chomsky 2000, 2001). For this analysis to work, the different contexts which trigger or block lenition or make it optional have to be in separate phases (e.g., Šurkalović 2013), which is not the case. Additional problems arise for approaches which do not allow reranking between phases.

(1) Distribution of ON depending on the morphosyntactic environment

Contrast			Neutralization
root-internal	pfx-root	v-Asp	v-categorizer
akmí ‘edge’	ek-meévo ‘I elicit’	anaðik-nío ‘I highlight’	/k/ pley-méno ‘plaited (NEUT)’
exmí ‘tip’	-	ríx-no ‘I throw’	/x/ katatreý-mós ‘persecution’
roy mí ‘crack’	-	ðiaríy-nío ‘I burglarize’	/y/ ármeý-ma ‘milking’

(2) /tis maθitrias/ tismaθitrias ~ tizmaθitrias ‘the student-FEM (gen)’

(3) Proposed sonority hierarchy for Greek

<i>stops</i>	<i>voiceless fricatives</i>	<i>voiced fricatives</i>	<i>s</i>	<i>z</i>	<i>nasals</i>	<i>liquids</i>
0	0.5	1	1.5	2	3	4

(4) OT tableau for stem level ON

/anaðik-nío/	SCL(+1)	IDENT[±voi]	IDENT[±cont]	CRISPEDGE
...i.knio				*
ik.nio	*!***			
ix.nio	*!***		*	
iy.nio	*!*	*	*	

(5) OT tableau for word level ON

/plek-ma/	CRISPEDGE	SCL(+1)	IDENT[±voi]	IDENT[±cont]
ple.kma	*!			
plek.ma		***!*		
plex.ma		***!		*
pley.ma		**	*	*

(6) OT tableau for postlexical level

/tis maθitrias/	CRISPEDGE	SCL(+1)	IDENT[±voi]	IDENT[±cont]
ti.smaθitrias	*			
tiz.maθitrias		**	*	*
tis.maθitrias		***!		

Selected references: Bermúdez-Otero, R. 2018. Stratal Phonology. In S.J. Hannahs & A.R.K. Bosch (eds.), *The Routledge Handbook of Phonological Theory*, 100–134. Routledge • Chomsky, N. 2001. Derivation by phase. In M. Kenstowicz (ed.), *Ken Hale: A Life in Language*, 1–52. CUP • Gouskova, M. 2001. Falling sonority onsets, loanwords, and syllable contact. In M. Andronis et al. (eds.), *CLS 37: The Main Session*. CLS • Gratsouni, D. & N. Topintzi. 2020. On the syllabification of ON clusters in Greek. *Studies in Greek Linguistics* 40, 105–113 • Kiparsky, P. 2000. Opacity and cyclicity. *The Linguistic Review* 17 (2-4), 351–365. • Malikouti-Drachman, A. 1987. Syllables in Modern Greek. *Phonologica* 1984, 181–187.