Manner Alternation in Ancient Greek Stem-Final Coronals Triggered by μ-Initial Suffixes

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This paper discusses the alternation of oral and nasal stops before μ-initial suffixes in Ancient Greek. Stem-final *non-coronal* oral stops alternate with nasals of the same place for all nasal-initial suffixes. For *coronal* oral and nasal stops that occur stem-finally, this process takes the form of an alternation with a sibilant fricative. This behaviour differs across dialects. Previously, this process for coronals has been attributed diachronically to analogy; however, this paper will show that the process is phonetically motivated, and the different crossdialect behaviour present additional evidence for this phonetic explanation.

The behaviour of labial and velar stops is shown below. Stem-final (non-coronal) oral stops undergo assimilation, whereby the nasal feature spreads from μ-initial suffixes to the stop of the stem. This process happens both synchronically (examples 1. through 4.), and diachronically (examples 5. through 7.) (Note that γ represents the velar nasal when preceding another nasal, or preceding another velar stop, in all other cases it represents the voiced velar stop. Accents and breathing marks on the Greek words are omitted for font simplicity.) This process for non-coronal stem-final stops is consistent for all nasal-initial suffixes, although μ-initial suffixes are far more numerous.

1. **(λε)λειπ + μαι** [(le)leip + mai] > **λελειμμαι** [leleimmai] 'leave' perf. 1st sg. mid.
   Compare with present indicative, 1st sg. **λειπω** [leipo:]

2. **(γε)γραφ + μεθα** [(ge)grap^{h} + met^{h}a]> **γεγραμμεθα** [gegrammet^{h}a] 'write' perf. 1st pl. mid.
   Compare with present indicative, 1st sg. **γραφω** [grap^{h}o:]

3. **(πε)πλεκ + μενος** [(pe)plek + menos] > **πεπλεγμενος** [pepleŋmenos] 'plait' perf. pass. part.
   Compare with present indicative, 1st sg. **πλεκω** [pleko:]

4. **(βε)βρεχ + μαι** [(be)brek^{h} + mai] > **βεβρεγμαι** [bebreŋmai] 'get wet' perf. 1st sg. mid.
   Compare with present indicative, 1st sg. **βρεχω** [brek^{h}o]

5. *ok^{w}ma > *opma > **ομμα** [omma] 'eye'
6. *prak + *mat- > **πραγμα** [praŋma] 'deed'
7. *seb- + *-nos > **σεμνος** [semnos] 'revere'

(Sihler (1995))

The behaviour of coronal stem-final oral and nasal stops is markedly different and varies crossdialectally. The examples below compare stems with final coronal oral stops using forms in Homeric Greek with forms in later, particularly Attic and Koine, Greek.

Homeric			Attic/Koine	
8. **κεκαδμαι**	[kekadmai]	~	**κεκασμαι**	[kekazmai] ‘surpass’ perf. 1st sg. mid.
9. **οδμη**	[odme:]	~	**οσμη**	[ozme:] ‘smell’
10. **τεθμος**	[tet^{h}mos]	~	**θεσμος**	[t^{h}ezmos] ‘ordinance’
11. **αδματος**	[adma:tos]	~	**Ασμητος**	[azme:tos] ‘untamed’
12. **ιδμεν**	[idmen]	~	**ισμεν**	[izmen] ‘know’ 1st pl.
13. *kharit- + *mat-		>	**χαρισμα**	[k^{h}arizma] ‘grace’

(Sihler (1995) and Marinone (1985))

While dialect variation exists in the behaviour of coronal oral stops, coronal nasals stops behave similarly crossdialectally and undergo a dissimilation process as in the examples below. What is clear from these coronal examples (8. through 16.) is that the process seen in labial and velar stops where the nasal feature is spread is somehow blocked in coronal stops. The examples below (14. through 16.) make clear that even when these nasal-nasal sequences arise morphologically, they are prevented from surfacing.

14. **(ε)ξαν + μαι** [(e)ksan + mai] > **εξασμαι** [eksazmai] ‘card wool’ perf. 1st sg. mid.
Comare to present indicative 1st sg. **ξαινω**

15. **(πε)φαν + μαι** [(pe)p^{h}an + mai] > **πεφασμαι** [pep^{h}azmai] ‘speak’ perf. 1st sg. mid.
Compare to present indicative 1st sg. **φαινω**

16. **(βε)βαν + μενος** [(be)bav + menos]> **βεβασμενος** [bebasmenos] ‘go’ perf. pass. part.
Compare to present indicative 1st sg. **βαινω**

(Sihler (1995) and Marinone (1985))

This difference in behaviour between coronal and non-coronal stops can be accounted for through an interaction between a constraint on morphological stems to retain their place features—thus preventing the place feature of the labial nasal from assimilating the coronal nasal as would occur in prefixes in Greek—and a second functional constraint requiring that jaw height be rising through sequences of stop clusters. As shown in McCall (2000), a number of different morphological effects can be explained by appealing to this jaw-height constraint. The realization of this constraint remains constant crossdialectally when a nasal is underlying, but differs by dialect through constraint ranking, or diachronic processes, when underlying oral stops are involved.

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