Laura Grestenberger
Laura.Grestenberger@concordia.ca

# "Strict" adjacency and voice allomorphy in Classical Greek passives

## 1. Introduction

In Classical Greek (CG) perfective stems (aorist, future), passive = suffix *-(th)ē-* (glossed as PFV.PASS), which appears in the slot usually occupied by stem-forming suffixes next to the root (NPAST = non-past, NACT = non-active; "middle".
**The puzzle**: *-thē-* triggers obligatory *active* endings in the aorist (1a–c), but obligatory *non-active* morphology in the future (1d–e):

**Ex. 1 Classical Greek passives**

| stem | passive | meaning |
|---|---|---|
| a. aor. | e-loú-thē-n<br>PAST-wash-PASS.PFV-1SG.PAST.**act** | 'I was washed' |
| b. aor.subj. | lou-thô<br>wash-PASS.PFV.SUBJ.1SG.NPAST.**act** | 'I may have been washed' |
| c. aor.opt. | lou-theíē-n<br>wash-PASS.PFV.OPT-1SG.PAST.**act** | 'I might have been washed' |
| d. fut. | lou-thḗ-so-mai<br>wash-PASS.PFV-FUT-1SG.NPAST.**NAct** | 'I will be washed' |
| e. fut.opt. | lou-thē-soí-mēn<br>wash-PASS.PFV-FUT.OPT-1SG.PAST.**NAct** | 'I might be washed' |

The intervening future suffix *-so-/-s-* by itself can take either active or NAct morphology, (2c), like most other stem-forming suffixes, (2a-b).

**Ex. 2 Classical Greek: stem-formation + voice alternations**

| | active | non-active |
|---|---|---|
| a. pres. | loú-Ø-ō<br>wash-IPFV-1SG.NPAST.ACT<br>'I wash (sth.)' | loú-o-mai<br>wash-IPFV-1SG.NPAST.NACT<br>'I wash myself' |
| b. aor. | é-lou-s-a<br>PAST-wash-PFV-1SG.PAST.ACT<br>'I washed (sth.)' | e-lou-sá-mēn<br>PAST-wash-PFV-1SG.PAST.NACT<br>'I washed myself' |
| c. fut. | loú-s-ō<br>wash-FUT-1SG.NPAST.ACT<br>'I will wash (sth.)' | loú-so-mai<br>wash-FUT-1SG.NPAST.NACT<br>'I will wash myself' |

- **Proposal**: The unexpected voice allomorphy in the CG passive is due to the "intervention" of the future suffix *-se/o-* between the pfv.pass. suffix *-thē-* (Asp) and the endings (Agr)
- It is not the *morphosyntactic* feature content of these heads that triggers the unexpected NAct morphology in (1d-e), but the *phonological* content of the heads that intervene between *-thē-* and T/Agr (FUT in (1d) and FUT+OPT in (1e)).
- T/Agr is sensitive to whether or not the *span* PFV.PASS+FUT is spelled out as portmanteau

## 2. Background: spans

Merchant 2015, Merchant and Pavlou 2016: allomorphy is triggered by adjacent **spans** (= sets of ordered terminal nodes of a given extended projection; each terminal node itself is a span), *not* by strict node adjacency

- **Outward sensitivity**: allomorphy is triggered by a structurally higher span; only the *morphosyntactic content* of the higher span is relevant (Embick 2010, Merchant 2015)
- **Inward sensitivity**: a structurally lower span conditions allomorphy in a higher span

**Prediction**: For inward sensitivity, both the phonological & the morphosyntactic content of the lower span can become relevant (Embick 2012) → linearization matters!

## 3. Background: Voice in CG

**Ex. 3 Spell-Out of non-act. morphology (Alexiadou et al. 2015: 101–2):**

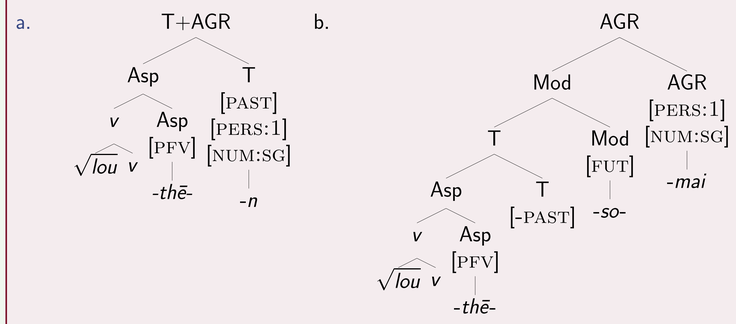
Voice → Voice[NonAct]/_ No DP specifier (based on Embick 1998, 2004)

- (Non-)active morphology = portmanteau with T/Agr, sensitive to Voice[+/-ext.arg.]
- active morphology = "elsewhere" (also emerges when Voice is missing, e.g., in unaccusatives & statives, Kallulli 2013).

## 4. Analysis: aorist stem → ACT (Fig. 1a) : future stem → NACT (Fig. 1b)

CG *-thē-* realizes Asp[pfv] in the absence of Voice
- *-thē-* is predicted to occur only when Voice is missing
- *-thē-* is predicted to co-occur with default ("act.") T/Agr morphology → aorist passive

**Figure 1: a. aorist passive, b. future passive**




- *-thē-* spells out Asp[pfv] in the absence of Voice in the future (like in the aorist) → The **future passive** is always perfective (Smyth and Messing 1956, Allan 2003)
- the future marker *-se/o-* realizes Mod (fut. & subj. cannot co-occur → different values of epistemic Mod, cp. Cinque 1999); Opt. = deontic mod., can co-occur with future
- But *-se/o-* by itself alternates. So why does ⌢Asp[thē]⌢Mod[so] trigger NACT?

## 5. Inward sensitivity

**Observation**: default act. morphology surfaces in the passive whenever Asp+Mod form a *portmanteau* (or Mod is missing → aor.pass.), fig. 2 a–c. NAct surfaces when Asp & Mod are spelled out separately, fig. 2 d–e (illustrated with 1pl.).

**Figure 2: Spell Out of Mod**

| | | | |
|---|---|---|---|
| a. | 1pl.aor.pass | *-thē-men* | -pfv.pass-1pl.past.act |
| b. | 1pl.aor.subj.pass | *-thô-men* | -pfv.pass.subj-1pl.nonpast.act |
| c. | 1pl.aor.opt.pass | *-theĩ-men* | -pfv.pass.opt-1pl.past.act |
| d. | 1pl.fut.pass | *-thē-só-metha* | -pfv.pass-fut-1pl.nonpast.**NAct** |
| e. | 1pl.fut.opt.pass | *-thē-soí-metha* | -pfv.pass-fut.opt-1pl.past.**NAct** |

Linearization for Fig. 2-b vs. 2-e:

**Ex. 4 Linearization**

a. √lou⌢Asp.Mod[thô]⌢Agr[-men] (Asp+Mod: portmanteau)
b. √lou⌢Asp[thē]⌢Mod[so]⌢Agr[-metha] (Asp+ Mod: no portmanteau, cp. fig. 3)

## 5. cont'd: Inward sensitivity

Why 4-b? → The future also triggers NAct morphology in many verbs that are otherwise active → **semi-deponents**: active in the present/aor., but non-active in the future.

**Figure 3: CG semi-deponents**

| Pres.: act. | Fut.: NAct | Meaning | Pres.: act. | Fut.: NAct | Meaning |
|---|---|---|---|---|---|
| *akoú-ō* | *akoú-so-mai* | '(will) hear' | *hamartán-ō* | *hamartḗ-so-mai* | '(will) miss, fail' |
| *baín-ō* | *bḗ-so-mai* | '(will) walk, go' | *aeíd-ō* | *aeí-so-mai* | '(will) sing' |

- Kemmer 1993: (inherently) desiderative & volitional verbs take NAct morphology cross-linguistically
- $\text{Mod}_{\text{FUT}}$ selects Voice without an external argument → condition on non-active voice applies (ex. 3), obligatory NAct in the future
- **Semi-deponents** suggest that Mod[FUT]⌢Agr = *always* Mod[*so*]-Agr[NACT]
- ... even if there is a lower *-thē-*: Mod has phonological content and *intervenes*

## 6. Additional evidence: the Doric future

In **Doric Greek**, the future passive = ACT
- The "Doric future": a theme vowel intervenes between *-se/o-* and the endings

**Figure 4: Doric future**

| | Doric | Attic-Ionic |
|---|---|---|
| fut. | lou-s-é-ō<br>wash-FUT-THEME-1SG.ACT | loú-s-ō<br>wash-FUT-1SG.ACT |
| fut.pass. | lou-thē-s-e-ō<br>wash-PFV.PASS-FUT-THEME-1SG.ACT | lou-thē-so-mai<br>wash-PFV.PASS-FUT-1SG.NACT |

- Fut & Agr not directly adjacent: Mod[*so*]-THEME-Agr → future pass. does not trigger obligatory NAct in Doric
  - Status of semi-deponents in Doric?

## 7. Implications

- Linearization influences the realization of morphosyntactic features, including agreement and allomorphy (e.g., Arregi and Nevins 2012, Marušič et al. to appear)
- The CG passive suggests that linearization (and "strict" adjacency) also plays a role in inward sensitive allomorphy, when lower nodes have been linearized and have phonological content
- In the CG future passive, it is the combination of Asp[pfv]+Mod that causes NAct morphology to surface on T/Agr, since neither node by itself obligatorily demands NAct.
- Examples from other languages?

## References

Alexiadou, A., E. Anagnostopoulou, and F. Schäfer. 2015. *External arguments in transitivity alternations: a layering approach*. Oxford University Press.
Allan, R. J. 2003. *The Middle Voice in Ancient Greek*. Amsterdam: Gieben.
Arregi, K., and A. Nevins. 2012. *Morphotactics: Basque auxiliaries and the structure of Spellout*. Berlin: Springer.
Cinque, G. 1999. *Adverbs and functional heads: a cross-linguistic perspective*. Oxford University Press.
Embick, D. 1998. Voice systems and the syntax/morphology interface. In *Papers from the UPenn/MIT Roundtable on Argument Structure and Aspect*, 41–72. MITWPL 32.
Embick, D. 2004. Unaccusative syntax and verbal alternations. In *The Unaccusativity Puzzle*, 137–58. Oxford University Press.
Embick, D. 2010. *Localism versus Globalism in Morphology and Phonology*. Cambridge, Mass.: MIT Press.
Embick, D. 2012. Contextual conditions on stem alternations: Illustrations from the Spanish conjugation. In *Romance Languages and Linguistic Theory 2010. Selected papers from 'Going Romance', Leiden 2010*, ed. I. Franco, S. Lusini, and A. Saab, 21–40. John Benjamins.
Kallulli, D. 2013. (Non-)canonical passives and reflexives: deponents and their like. In *Non-Canonical Passives*, 337–58. Amsterdam/Philadelphia: John Benjamins.
Kemmer, S. 1993. *The Middle Voice*. Amsterdam: John Benjamins.
Marušič, F., J. Willer Gold, B. Arsenijević, and A. Nevins. to appear. Can agreement with the linearly closest conjunct be derived in syntax proper? In *Proceedings of NELS 2015, Concordia University, October 16 - 18, 2015. Montreal, Canada*.
Merchant, J. 2015. How much context is enough? Two cases of span-conditioned stem allomorphy. *Linguistic Inquiry* 46/2:273–303.
Merchant, J., and N. Pavlou. 2016. A surprising allomorphic span in Cypriot Greek. Ms., University of Chicago.
Smyth, H. W., and G. M. Messing. 1956. *Greek Grammar*. Cambridge, Mass.: Harvard University Press.

NELS 47, UMass Amherst, 14–16 Oct. 2016