Genitive problems: Mycenaean -Ca-o, -Co-jo, -Co vs. later Greek ...
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Genitive problems: Mycenaean -*Ca-o*, -*Co-jo*, -*Co* vs. later Greek -ᾱο, -οιο, -ου

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Abstract: After a review of earlier theories about the analogical gene-
sis of the Mycenaean masculine *ā*-stem genitives in -*Ca-o* /- ā(h)o/, it
is argued that the traditional explanation, which sees the *o*-stem
genitive as their model, can be maintained if the phonological
development *-*osyo* > *-*ohyo* > *-*ōyo* > *-*ōho* > *-*ō* (Kiparsky) is
accepted. Mycenaean -*Co-jo* is a conservative spelling for /-ōho/ and
the genitives in /-āho/ are recent creations for which a similar spelling
in *-*Ca-jo* was orthographically blocked. The later Greek *o*-stem
genitives in -ου partly arise from contracted *-*ōo*, but in the prono-
minal system in particular they also result from the generalisation of
elided *tōh(o) etc.; similar forms might also explain the 'irregular'
Mycenaean genitives in -*Co*.[*]

1. Ever since the decipherment of Linear B, the origin of the
genitive singular ending of masculine *ā*-stem nouns in later (i.e.
first-millennium) Greek has been hotly debated. Unlike the
feminine *ā*-stem nouns, whose gen. sg. in -ᾱς can be traced back
to Proto-Greek *-*ās* < *-*eh₂-(e)s* without difficulty (Rix 1992:
132), the masculines show an innovated gen. sg. in -ᾱο (Home-
ric epic, Boeotian) > -αυ (Arcado-Cyprian), -ᾱ (West Greek,
Lesbian, Thessalian) and -ηο > -εω (Ionic) (cf. Buck 1955: 38,
87); only in Attic, where -ᾱο > *-(ε)ω would be expected as in
Ionic, this ending has been replaced wholesale by the ending -ου
of the *o*-stems (e.g. gen. sg. πολίτου from πολίτης 'citizen').
Before Mycenaean Greek became known, the explanation of the
innovated masculine ending -ᾱο had been straightforward: -ᾱο
seemed to have been analogically built at a time when the
o-stem gen. sg. ending was still uncontracted *-*oo* (later >

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contracted -ου); or else, if *-oo was to be traced back to a pronominal gen. sg. in *-oso > *-oho rather than to PIE *-osyo > *-oyyo > Homeric (Aeolic) -οιο, it might have been built at an even earlier moment when *-ās could be remodelled into *-āso in analogy with *-oso (cf. e.g. Schwyzer 1939: 560).

That the Mycenaean evidence presented a problem to this account was first pointed out by Geiss (1956). In Mycenaean, masculine ā-stem genitives are well-represented (cf. the Appendix), and they regularly end in -Ca-o (e.g. su-qo-ta-o /sug^{w}ŏtā(h)o/ *vel sim.* 'of the swineherd', qo-qo-ta-o /g^{w}ŏ(u)g^{w}ŏtā(h)o/ 'of the cowherd', PN ta-ra-ma-ta-o /T^{h}alamātā(h)o/ 'of Thalamatas' etc.). These genitives contrast with the regular Mycenaean o-stem genitives in -Co-jo, which are normally interpreted as /-oyyo/ or /-oiyo/, prefiguring Homeric (Aeolic) -οιο. However, if the o-stem genitives ended in /-oyyo/ (< *-osyo) in Mycenaean Greek and if there is no parallel evidence for an ending */-o(h)o/ (< *-oso), then it becomes difficult to argue that /-ā(h)o/ in the masculine ā-stem genitives is analogically based on their o-stem counterparts: one would a priori expect analogical *-Ca-jo ~ */-āyyo/ rather than the attested -Ca-o ~ /-ā(h)o/.

2. In order to avoid this difficulty, scholars have explained the rise of the ending -āo (Myc. /-ā(h)o/) in a number of different ways. None of these alternative solutions is without its merits, but all have certain shortcomings attached to them. It will be useful briefly to review them here, before making a new attempt at solving the riddle.

2.1. Geiss himself postulates that the masculine ā-stem genitive analogically mirrors not the o-stem genitive, but the pronominal genitive τέο; 'of whom?', τεο 'of someone' (Attic τοῦ;, του) < *k^{w}eso (cf. OCS *česo* 'of what'). Thus, while the o-stem genitive would still have been /-oyyo/, the ā-stem genitive /-ās/ would have been replaced by */-āso/ > /-āho/ next to */k^{w}eso/ > */k^{w}eho/ (Geiss 1956). However, it is unclear why only the masculine ā-stems should have been affected by this change

since *$k^w eso$ is gender-indifferent; and both Szemerényi (1956: 198) and Haug (2002: 96–100) even question whether a prono-minal genitive ending in *-*so* can at all be postulated for Proto-Greek. Moreover, the masculine *ā*-stem nominative in -ᾱς (as opposed to original fem. -ᾱ) rather strongly suggests an *o*-stem influence on the masculine *ā*-stems, so that one may not want to dismiss the *o*-stem source too easily.

2.2. Szemerényi (1956: 199) therefore returns to the *o*-stem analogy and argues that, just as masc. nom. /-ā-s/ (-ᾱς) was created so as to match /-o-s/ (-ος), masc. gen. */-ā-yyo/ was created next to /-o-yyo/; but in */-āyyo/, unlike /-oyyo/, the sequence /-yyo/ followed a long vowel and was therefore immediately reduced to /-yo/ in order to avoid overlength. From that point onward, developments were regular: while /-āyo/ lost its single intervocalic *yod* already before Mycenaean times and became /-ā(h)o/, the geminate *yod* of /-oyyo/ was more stable and disappeared, via an intermediate stage /-oyo/, only at a post-Mycenaean date. The weakness of this account lies in the fact that the graphic representation of original simple *-y-* in the material suffix *-eyos* (> later Greek -εος, Attic contracted -ους; cf. Risch 1976, Hajnal 1994) still oscillates between -*Ce-o* and -*Ce-jo* in Mycenaean so that it is commonly assumed that inter-vocalic *-y-* was just in the process of being lost (cf. e.g. *e-re-pa-te-o* vs. *e-re-pa-te-jo* /eleph anteyos/ 'of ivory', Ruijgh 1967: 64–65 and Lejeune 1972a: 169, and see further §8). At the very least one would therefore expect *some* genitives in *-*Ca-jo* next to -*Ca-o*. Haug (2002: 95), who adopts Szemerényi's view in a slightly modified form, correctly highlights this problem, but then construes an *ad hoc*, and therefore doubtful, solution: 'le yod a dû tomber assez vite derrière les voyelles longues' and 'on peut aussi penser à l'influence du gén[itif] pl[uriel]'.

2.3. Geiss's solution is further refined by Ruijgh (1967: 80–81) and (1979: 72–73). The latter proposes an analogical equation gen. pl. *$k^w es\bar{o}n$ > */k w eh\bar{o}n/ : gen. pl. *-*āsōn* > /-āhōn/ ~ gen. sg. *$k^w eso$ > */k w eho/ : gen. sg. X → gen. sg. *-*āso* > /-āho/:

according to him, 'l'influence de la flexion de l'interrogatif sur les substantifs est bien concevable'. Even if one is prepared to accept this, the objections to Geiss's account still stand, and the further question is raised whether a genitive plural form is a plausible base form for such an analogical equation. The same question-mark also hovers over the earlier and otherwise more plausible proposal by Risch (1959: 221–222) that an ultimately lost genitive plural form of the demonstrative rather than the interrogative pronoun is involved: gen. pl. *toisōm* (cf. Skt. *teṣām*, OCS *těchŭ*) > *toiōn* (*/toyyōn/) : gen. pl. *-āsōn* > /-āhōn/ ~ gen. sg. *tosyo* > /toyyo/ : gen. sg. X → gen. sg. /-āho/. That sequences of {demonstrative pronoun + noun} cannot have been all that frequent before the (apparently post-Mycenaean) rise of the definite article is in itself no additional argument against Risch's idea (cf. §21), but it is also true that sequences of {*o*-stem adjective + noun} would no doubt have been equally common, and only the latter could account for the innovated nom. sg. of masculine *ā*-stems in /-ās/: the nom. sg. of the demonstrative pronoun ὁ, after all, had no final /-s/ to spread (cf. Morpurgo Davies 1968: 20–21).

2.4. Whereas Szemerényi operated with an analogical proportion nom. /-os/ : gen. */-osyo/ > /-oyyo/ ~ nom. /-ās/ : gen. X → X = */-āsyo/ > */-āyyo/ > */-āyo/ > /-ā(h)o/, (Lucidi *apud*) Morpurgo Davies (1968: 17 n. 1) suggests to start at a stage when the masculine *ā*-stem nominative had not yet been remodelled after the *o*-stems. The relevant proportion could then be nom. /-os/ : gen. */-osyo/ ~ nom. /-ā/ : gen. X → X = */-āyo/ > /-ā(h)o/. This is formally neat, but the relative sequence of the genitive remodelling preceding the nominative one is open to the objection that the pressure to replace the original genitive in */-ās/ of the masculine *ā*-stems would have been minimal *before* the creation of a homophonic nominative in /-ās/ (cf. Ruijgh 1979: 73). Furthermore, Morpurgo Davies's proportion presupposes a primary speakers' analysis of the */-osyo/ genitive as */-os-yo/ rather than */-o-syo/, although the latter might seem more natural in a

paradigm nom. /-o-s/, acc. /-o-n/, dat. /-ō-i/, loc. /-o-i/ where the 'thematic vowel' was clearly recognisable as a predesinential element. Also, it is still not clear why there are no examples of *-Ca-jo (cf. §2.2).

2.5. Lillo (1985 and 1987: 90–91) reestablishes the pronominal approach, but instead of starting from *$k^w eso$ like Geiss and Ruijgh, he assigns a crucial role to the demonstrative pronoun ὀ, ἀ, τό, just as Risch had done. On the basis of statistics which seem to suggest that the pronominal o-stem genitive is predominantly *-oo > -ου in the *Iliad*, whereas the nominal o-stem genitive is predominantly -οιο (Ruipérez 1979), he argues that one should indeed posit a Proto-Greek pronominal ending *-so and that the masculine ā-stem genitive /-ā(h)o/ is analogical with pronominal /-o(h)o/ < *-oso. Yet, however strong the evidence for a pronominal ending *-so may or may not be in the case of τέo (cf. §2.1), there is little reason to reconstruct forms such as *toso; in fact, the equation Skt. *tasya* ~ Gr. τοῖο speaks against it, and the predominance of pronominal -ου in epic poetry may be explained, at least for the time being (but cf. §17–§20), by the fact that (a) an older -οιο would have been particularly protected in formulae where nouns and epithets were more frequent than pronouns (Risch *apud* Ruipérez 1979: 292) or (b) the 'reduction' into *-oo > -ου would occur most easily in unstressed words among which the pronouns were certainly more common than the nouns or adjectives (cf. Schwyzer 1939: 273, López Eire 1969: 15–17). What is more, the available evidence for pronominal -Co-jo in Mycenaean is stronger than that for pronominal -Co-o. Whereas PY Eb 156.2 *au-to-jo* ~ αὐτοῖο (and *to-jo-qe* ~ τοῖό τε?) and PY Er 312 *to-so-jo* ~ τόσοιο (twice) can be interpreted as pronominal genitives rather straightforwardly, the same is not true for PY Un 1321.3 *to-o* and PY Xn 1342.1 and KN Od 666.a *to-so-o*. Even if the latter were genitives too, it would still be unwise to disqualify *au-to-jo* and *to-so-jo* as pseudo-archaising orthographies (Ruipérez 1979: 292).

2.6. A radical reappraisal is offered by Hajnal (1995: 35–54). According to Hajnal, Myc. *-Ca-o* does not render /-ā(h)o/, but rather /-ắ'os/. Whereas some of the *ā*-stem masculines are no doubt derived from feminine *ā*-stems (e.g. Κρήτᾱ 'Crete' → Κρήτᾱς 'Cretan'), others, and specifically those with the suffix -τᾱς, are commonly thought to be based on a type of old root nouns (or adjectives) also represented by e.g. Skt. *go-pā́ḥ* 'cowherd', *pari-ṣthā́ḥ*'obstructing' (cf. Leukart 1975 and 1994: 268–287, elaborating on Fraenkel 1912: 157–159). The latter would be the source for the Greek masculine nominative in -ᾱς instead of just -ᾱ, but otherwise their inflection would have been brought in line with that of the feminine *ā*-stems. Thus, a name like Ὀρέστᾱς < *ores-(s)tā́s* (< *-stéh₂-s*) 'standing on the mountains' would have given up its original inflection with e.g. genitive *ores-(s)t-ós* (< *-sth₂-ós*, with zero-grade root). However, Hajnal suggests that this adjustment was not complete: because of the similarity of nom. *Orestā́s*, acc. *Orestā́n* with *ā*-stem nom. *Krḗtā(s)*, acc. *Krḗtān*, the genitive *Orestós* would have acquired a stem-vowel -ă̆- so as to become *Orestắ'os*, but it would *not* have taken on the real *ā*-stem genitive ending -ās < *-eh₂-(e)s* (which, before the creation of *Orestắ'os* and the like, must also have been the masculine *ā*-stem genitive ending of words such as *Krḗtā(s)* 'Cretan'). Now, if Myc. *-Ca-o* represented such an ending /-ắ'os/ of mixed *ā*-stem/root-noun origin, it would no longer be relevant for the question surrounding the *later* masculine *ā*-stem genitive -ᾱο, and -ᾱο could then be said to have been built analogically only when the *o*-stem genitive had reached the stage *-oo.

Unfortunately, the plausibility of all of this is very limited. Firstly, solutions which fundamentally reduce the continuity between Mycenaean and later Greek are always suspect. Note for instance that, while a formulaic verse-end like *Il.* 1.1 Πηληϊάδεω Ἀχιλῆος can easily be transposed into a more archaic ΠηληϜϊάδα' ἈχιλῆϜος and thus be dated back into the pre-Homeric centuries, a version *ΠηληϜϊάδᾱος ἈχιλῆϜος is metrically impossible; the time-schedule for the 'invention' and

spread of /-āo/ would therefore become extremely tight. Secondly, if a distinctive masculine ā-stem genitive in /-ā̆'os/ was ever created, why should this convenient form have been replaced by /-āo/ later on?

2.7. Meier-Brügger (1996) again favours a more conventional explanation. Once the development *-osyo > *-oyyo had taken place in pre-Mycenaean times, the first *yod* became part of a diphthong /oi/, and the second *yod* was reinterpreted by the primary speakers as a phonologically irrelevant glide (i.e. /-oyyo/ ~ /-oi[y]o/). Because of the loc. pl. *-oisi* > Myc. /-oihi/, which could be segmented as /-oi-hi/ (cf. ā-stem loc. pl. /-ā-hi/), a gen. sg. ending /-[y]o/ was extrapolated from /-oi[y]o/ and attached to the stem-vowel of the masculine ā-stems; but because in this case there was no need for a glide, only /-āo/ (not /-āyo/) was the result (cf. similarly already Ruipérez 1972: 164). In later Greek, outside Aeolic, the syllable boundary shifted from /-oi.[y]o/ to /-o.yo/, and this then went to /-oo/ > -oυ. What is not quite clear in the argument is why the second *yod* should have been reinterpreted, i.e. dismissed as irrelevant, when there was no parallel genitive ending in simple /-o/ supporting such an interpretation. If the loc. pl. was so influential, would it not have been natural to treat *any* phonetic element following the diphthong /oi/ as the case ending, even if it *could* be taken, on an abstract level, to be phonologically 'irrelevant'? More crucially, it is doubtful whether the locative plural would have been a firm enough basis for an analogical proportion loc. pl. /-oihi/ : gen. sg. /-oi[y]o/ ~ loc. pl. /-āhi/ : gen. sg. X → X = /-āo/ to work. This objection would even remain valid if we accepted the view of López Eire (1972: 274–275) that the Mycenaean loc. pl. should be posited as /-oyyi/ (and hence the analogical proportion formulated as /-oyyi/ : /-oyyo/ ~ /-ā(h)i/ : X → X = /-ā(h)o/; cf. also House-holder 1960/1: 186–187).

3. Given this range of competing opinions, it might seem pointless to discuss the whole issue yet again. It is certainly true that any of the above proposals could in theory be correct. The

question is just which one of them, if any, commands sufficient plausibility to prevail over the others. To some extent this may be a matter of personal choice, and one might therefore leave it at that. Still, there is one reason why the problem should nevertheless be taken up once more. Whereas all scholars have done their best to come to terms with (Proto-)Greek phonology and morphology, a third and potentially more crucial component of the matter has been disregarded almost completely: Mycenaean orthography. On the following pages, an attempt will be made to fit this third component into the picture. Before we can do so, however, a few more preliminary remarks are called for. Especially the contributions of Szemerényi, Lillo and Meier-Brügger have shown that the evolution of the *o*-stem genitive singular might have some bearing on the question of the masculine *ā*-stem genitives: but since the former is not an uncontroversial subject in itself, we must first take a closer look at it.

4. There can be no doubt that Proto-Greek inherited an *o*-stem genitive singular in *-*osyo* from Proto-Indo-European (cf. Skt. -*asya*, OLat./Falisc. -*osio*, Arm. -*oy*). As stated above, it is normally assumed that *-*osyo* developed into *-*oyyo*, and that the Homeric genitive in -οιο represents this *-*oyyo*. However, Homer also has genitives in -ου and these are commonly held to have been contracted from *-*oo*: wherever -ου occurs in the thesis of a hexametrical foot, it can be restored as *-*oo*, and for instance a hexameter beginning with the formula Ἰλίου προπάροιθε (*Il.* 15.66, 21.104, 22.6) will be metrical if we read *Ἰλίοο προπάροιθε (cf. Chantraine 1958: 45–47, with further examples).

Now, if we are not prepared to operate, uneconomically, with an alternative Proto-Greek ending *-*oso* > *-*oo*, we must look for a way in which *-*osyo* > *-*oyyo* could result in -ου. A regular loss of intervocalic *-*yy-* is excluded by the fact that feminines of perfect participles in *-*usya* as well as adjectives in *-*yos* which are derived from *s*-stem nouns (i.e. *-*esyos*) result in Homeric and Attic-Ionic -υια and -εος (e.g. Att. εἰδυῖα 'knowing', Ho-

mer. τέλειος < *telesyos 'complete', Att. ἐπιτήδειος 'suitable'). Although by-forms in -εος do exist in some of the latter cases (e.g. Att. τέλεος), they are never as exclusive as the Attic-Ionic genitives in -ου (outside poetry never -οιο). Hence, they must be due to a *later* and unsystematic loss of the diphthongal element in -ειος. Single intervocalic *-y-, on the other hand, was always lost in Greek, as shown for instance by the material adjectives ending in Proto-Greek *-eyos (cf. e.g. Lat. *aureus* 'golden'; §2.2) which, unlike the s-stem derivatives, yield contracted -ους in Attic (e.g. Attic χρυσοῦς, Ionic χρύσεος 'golden'; forms like epic χρύσειος are secondarily influenced by the s-stem derivatives). In order to maintain a development *-osyo > *-oo it would then seem necessary to postulate an unparalleled intermediate step *-oyyo > *-oyo. As observed before (§2.5), it has in fact been suggested that such an intermediate step occurred first in some unstressed (pronominal) forms. Table I summarises the situation as described so far.

Stage	gen. sg.	s-stem derivative	fem. perf. part.	adj. of material
I	*-osyo	*-esyos	*-usya	*-eyos
II	-oyyo (~ Homer. -οιο)	-eyyos (-ειος)	-uyya (-υια)	*-eyos
III	(irregular) *-oyo	= II	= II	*-eyos
IV	*-oho	= II	= II	*-ehos
V	*-oo	= II	= II	-eos (-εος)
VI	-ō (-ου)	= II	= II	(Attic:) -ōs (-ους)

Table I: A conventional view of phonological developments involving Proto-Greek *y.

5. Obviously, the assumption of an irregular reduction *-oyyo > *-oyo > *-oo can neither be proved nor disproved. At best, it can be replaced by a better explanation. One alternative is to see in *-oo not a phonological development, but an analogical form. Ruijgh (1979: 72) has thus suggested that *-oo was analogically created after pronominal genitives such as ἐμέο and τέο as well as the masculine ā-stem genitives in -ᾱο – but of course one can only accept this if one accepts the rest of his theory as sketched above, including a Proto-Greek pronominal ending *-so. One of our initial aims was to avoid exactly that.

6. A more elegant way out of the cul-de-sac is therefore the one first proposed by Kiparsky (1967) and now strongly defended by Haug (2002: 70–106). For Kiparsky, the question of the *o*-stem genitives has to be connected with the so-called first compensatory lengthening, by which forms such as Proto-Greek *swelasnā* 'moon' became Doric (here: ~ Proto-Attic-Ionic) *selānā* (> Attic-Ionic σελήνη), but Aeolic *selannā* (Lesbian σελάννᾱ). According to Kiparsky, this development should not be reconstructed as *swelasnā* > assimilated *swelannā* > (Doric, Proto-Attic-Ionic) *selānā* with compensatory lengthening (vs. retained *selannā* in Aeolic) (cf. Ruipérez 1972, who speaks of a 'tendance à faire des syllabes ouvertes et des voyelles longues ouvertes, phénomène qui a eu lieu dans les dialectes d'où sont sortis notamment l'ionien-attique et certains parlers de la *doris mitior*'). Instead, a group such as *-sn-* first went to *-hn-*, and *-h-* was then lost, with compensatory lengthening, in most dialects. The Aeolic form would therefore not be a retained archaism, but rather an idiosyncratic special development of one (relatively marginal) dialect group: *swelasnā* > *swelahnā* > (Doric, Proto-Attic-Ionic) *selānā* vs. (Aeolic) *selannā*.

The advantage of Kiparsky's sequence lies in the fact that the *-osyo* issue can now be treated in exactly the same way. Unlike the other Greek dialects, (Aeolic) East Thessalian has a regular *o*-stem genitive singular in -οι. This is clearly an apocopated form of the 'Homeric' ending -οιο, which remains a Thessalian variant for some time (cf. e.g. *DGE* 577.11–12, *DGE* 598: both 3rd cent. B.C.). Admittedly, East Thessalian -οι(ο) is not shared with the other Aeolic dialects, Lesbian and Boeotian (-ω), but since it is likely that Lesbian and Boeotian were both heavily influenced by neighbouring non-Aeolic dialects, *-οιο (i.e. *-oyyo*) can confidently be postulated for Common Aeolic. We thus get Proto-Greek *-osyo* > *-ohyo* > (Proto-Doric, Proto-Attic-Ionic) *-ōyo* vs. (Aeolic) *-oyyo*. In *-ōyo*, unlike *-oyyo*, there is only a single intervocalic *-y-*, which would be lost by

the same regular development as the intervocalic *-y- in the suffix of material adjectives in *-eyos: hence *-ōyo > *-ōo. By implication, Homeric -οιο would have to be one of the Aeolic elements in epic language rather than a general archaism.[1]

According to Kiparsky (1967: 630–632), *-ōo would next undergo quantitative metathesis (> *-oō) before contracting into -ō (-ου). To this, Haug (2002: 85) rightly objects that 'il n'y a pas d'autres exemples de ce que la métathèse ait affecté deux voyelles du même timbre'. Since one may also hesitate to postulate a general word-internal principle of *vocalis ante vocalem corripitur* (*-ōo > *-oo > -ō (-ου)), Haug may be right when he suggests instead that *-ōo was contracted directly into -ō (-ου). The only apparent difficulty with this is the Homeric evidence for *-oo (cf. §4 on Ἰλίου προπάροιθε etc.). This issue will be further discussed below (§17–§20), but it may already be noted that those words for which a genitive in *-oo seems to be really necessary are virtually all of a metrical structure that would have excluded a genitive in -οιο or *-ōyo > *-ōho from any hexameter: there is no unavoidable *δόμοο or the like, only *Ἰλίοο, *ἀγρίοο, *Αἰόλοο, *ἀνεψιόο, *ὁμοίοο, *Ἀσκληπίοο.[2] This in turn suggests that we are either (a) not dealing with *-oo in such cases either (but rather with artificial metrical lengthening of the preceding syllable[3]), or (b) that such forms were created in an equally artificial manner, by a special form of *diektasis* (-ō →

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[1] But note that it cannot strictly speaking *prove* the existence of an 'Aeolic phase' any more than, for instance, the *ā*-stem genitives in -ᾱo do (on which see Horrocks 1996: 215–217): in theory, South Greek (Ionic) bards might have borrowed -οιο from neighbouring Aeolic when their own metrically equivalent *-ōo underwent further changes, as discussed below.

[2] The only exception could be ὅου ~ (relative) οὗ at *Il.* 2.325 and *Od.* 1.70 with ὀοῦ κλέος οὔ ποτ' ὀλεῖται and ὅου κράτος ἐστὶ μέγιστον respectively; this is read as *ὅο by Chantraine (1958: 45). Note however that metrical constraints are operating here too: in both cases, ὅου must provide the transition to a formulaic verse-end after a preset verse-beginning (*Il.* 2.325 ~ *Il.* 7.91, *Od.* 24.196; *Od.* 1.70 ~ *Il.* 2.118, 9.25, 9.39, 13.484, 24.293, 24.311, *Od.* 5.4).

[3] This phenomenon would be exactly parallel to the common metrical lengthening of -ίη in abstract nouns such as κακοεργίη, ἀτιμίη, προθυμίη etc.: cf. Chantraine (1958: 101).

-oo (or *-oō*?); cf. Homeric ὀρῶντα → ὀρόωντα etc., σῶς → σόος; Chantraine 1958: 77). In either case the aim was to obtain a metrically suitable genitive that could be used, against all odds, in preconsonantal contexts (and not just before vowels where e.g. Ἰλίου with contracted *-ō* was possible thanks to the usual correption of long vowels in hiatus). *If* (b) was what happened, *-oo might* of course also have spread to other nouns as a metrical alternative to *-ō*, but we could never be sure of that.[4]

7. Forms like the *s*-stem derivatives in *-esyos* (or more rarely *-osyos*) and the feminine perfect participles in *-usya* pose a problem for Kiparsky's theory only at first sight. In all of these cases, but not in the genitive ending *-osyo*, there is an obvious morpheme boundary before a clearly analysable, productive suffix starting with *-y-* (adjectives in *-yos*, feminines in *-ya*). Kiparsky therefore suggests that the change *-VsyV-* > *-VhyV-* > *-V:yV-* was not carried out if there was a morpheme boundary *-Vs.yV-*, but that in these cases *-Vs.yV-* *secondarily* became *-Vy.yV-* (and thus -ειος, -οιος, -υια etc.). Again this can be paralleled since Proto-Greek *wes-nūmi* 'to clothe' should have become Attic *εἵνυμι (~ /hēnūmi/) by the same process that produced Attic *selānā > σελήνη, but instead shows up as ἔννυμι, thus testifying to a secondary change *-Vs.nV-* > *-Vn.nV-* with the conspicuous morpheme boundary preventing the primary change *-VsnV-* > *-V:nV-*. Table II again summarizes the stages (with the column for the material adjectives added for comparison).

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[4] The decision between (a) and (b) is difficult: in favour of (a) one might cite *Il.* 5.21, 6.61, 7.120, 13.788 with ἀδελφειοῦ (where metrical lengthening is marked by the diphthong spelling -ει-), in favour of (b) *Il.* 6.344 and 9.64 with κακομηχάνου ὀκρυοέσσης and ἐπιδημίου ὀκρυόεντος (where an under-lying spelling with *-oo could help to explain the irregular 'prothetic' vowel of κρυόεις); cf. Chantraine (1958: 45). A 'diektasis' reading might also have been supported by prevocalic genitives in /-ō/ (-ου) whose /-o/ by correption could be taken for elided /-o(o)/.

Stage	gen. sg.	s-stem derivative	fem. perf. part.	adj. of material
I	*-osyo	*-es.yos	*-us.ya	*-eyos
II	*-ohyo	*-es.yos	*-us.ya	*-eyos
III	*-ōyo	*-es.yos	*-us.ya	*-eyos
	(but Aeol. -oyyo (-oι(o))			
IV	*-ōho	-eyyos (-ειoς)	-uyya (-υια)	*-ehos
V	*-ōo	= IV	= IV	-eos (-εoς)
VI	-ō (-oυ)	= IV	= IV	(Attic:) -ōs (-oυς)

Table II: Kiparsky's view of phonological developments involving Proto-Greek *y.

8. The question now arises whether, or how, Kiparsky's model can account for the situation in Mycenaean. Considering the *o*-stem genitive singular in *-Co-jo* and the regular Mycenaean spelling rules, it would at first seem that any of the stages I–III would be a possibility. The situation with the feminine perfect participles and the *s*-stem derivatives would fit in well with this: compare for instance the participle *a-ra-ru-ja* ~ ἀραρυῖα 'fitted' (< *-us.ya), the PN *a-ti-ke-ne-ja* ~ Ἀντιγένεια (< *-genes.ya) or the instr. pl. *ke-ra-ja-pi* ~ *κεραίᾱφι from an adjective *κεραῖoς /κεραιóς < *keras.yos (cf. Risch 1976: 309, Ruijgh 1983).[5] However, we then get into a difficulty with the adjectives of material: as mentioned before (§2.2), these end in either *-Ce-jo* or *-Ce-o* and therefore suggest that the change *-VyV- > *-VhV-

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[5] Occasional spellings with *-Ce-i-jo-* ~ *-Ce-jo-*, *-Ca-i-jo-* ~ *-Ca-jo-* etc. are found with *s*-stem derivatives (e.g. *ke-ra-i-ja-pi* next to *ke-ra-ja-pi*, *e-te-wo-ke-re-we-i-jo* from Ἐτεϝoκλεϝεσ-; Lejeune 1972a: 133). It has been suggested that one should therefore posit /-ehiyos/ and /-ahiyos/ < *-es-ios and *-as-ios rather than *-esyos and *-asyos for these adjectives, as opposed to *-usya in the participles and *-esya in feminines such as *a-ti-ke-ne-ja* (Ruijgh 1967: 198, after Doria 1958 and Heubeck 1959, 229–233). However, the parallelism of *ke-ra-i-ja-pi* and *ke-ra-ja-pi* would remain problematic, and sometimes spellings like *-Ca-i-jo-* also appear in words not obviously derived from *s*-stems (e.g. PY An 661 etc. *i-da-i-jo*, *ko-ro-ku-ra-i-jo*). In the light of the following remarks, it might be worth considering whether *-Ce-i-jo*-type spellings could not be secondary attempts to prevent the mis-interpretation of *-Ce-jo*-type spellings as /-eho-/ instead of /-ey(y)o-/; note that the *-Ce-i-jo* spellings seem to be more common in Pylos (Haug 2002: 91), where the adjectives of material are also written with *-Ce-jo* instead of *-Ce-o* more consistently (Duhoux 1987: 107–108 and 1990). This *might* be due to the fact that in the later Pylos documents the convention of writing /ho/ with the <jo> sign is better established (since older).

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had already occurred – just as word-initial doublets like
jo(-do-so-si) 'thus[6] (they will give)' and *ja-ke-te-re* next to
o(-di-do-si) 'thus/what (he gives)' and *a₂-ke-te-re* suggest that
the change of word-initial **y-* > /h-/ had already happened. This
places Mycenaean at stage IV rather than III. Hence, the spelling
-Ce-jo in the material adjectives[7] must be considered to be due
to orthographic conservatism, whereas the spelling *-Ce-o* more
faithfully reflects the actual pronunciation /-ehos/. This does not
mean, however, that we would be justified in rejecting the
conventional transcription altogether and argue that one should
transcribe *-Ce-ho* instead of *-Ce-jo*: for if the sign <jo> (and
similarly <ja> etc.) were *always* to be read as /ho/ (/ha/ etc.), it
would be difficult to explain spellings in which <jo> marks a
glide after a vowel /i/ (e.g. gen. *de-u-kĭ-jo-jo* /Deukiyo-/ *vel sim.*,
not */Deukiho-/) as well as the spelling of participles like
a-ra-ru-ja, *s*-stem derivatives like *a-ti-ke-ne-ja* or *ā*-stem deriva-
tives like *a-ko-ra-jo* ~ ἀγοραῖος where later Greek -υια, -εια and
-αῖος respectively make an interpretation with /y(y)/ virtually
unavoidable (*pace* Gallavotti 1960 and Deroy 1974). On the
other hand, the argument that <jo> can *sometimes* be used for
/ho/ is further strengthened by the form *a-ro₂-jo* in KN So 4437
where an interpretation as gen. sg. of the comparative stem
*aryos- (also represented by nom. pl. ntr. *a-ro₂-a* and nom.
pl./du. fem. *a-ro₂-e*) is the only one to make perfect sense; an
original **aryos-os* would have become **aryohos*, which could
adequately be written *a-ro₂-jo* once <jo> had come to stand *also*
for /ho/ (cf. Szemerényi 1968: 26–27).
All of this is of course well-known and has led to formulations
like the one by Ruijgh (1967: 64): 'on peut tirer [...] la conclu-
sion qu'à l'époque des tablettes, *y* était en train d'évoluer vers

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[6] Or relative 'who' (nom. pl.): cf. Probert (2009).
[7] And elsewhere: cf. also KN Fh 348.2 etc. *qe-te-o* vs. PY Fr 1206 etc.
qe-te-jo. Against Hajnal (1992: 292) it is irrelevant for the phonological point
under discussion whether these forms are gerundives or not.

h'.[8] But perhaps we have to be slightly more precise: what it really shows is that, at the time of *our* tablets, stage IV with intervocalic (and word-initial) /(-)h-/ had been reached, but when Linear B was *first* used to write Greek **(-)y-* still existed (~ stage III) (cf. Heubeck 1979: 243, Lejeune 1997: 205–208, who speaks of 'proto-mycénien'). The Mycenaean language, like all languages, evolved, but the spelling system, like (almost) all spelling systems, did not keep pace (cf. esp. Brixhe 1989: 48–52). So, at the time of the tablets we have, the sign <jo> stood for either /yo/ *or* /ho/, just as in Modern English the 'sign' <ea> can stand for two completely different sounds in *bear* and *fear* (or, for that matter, in *lead* and *lead...*). Some <yo>'s had become /ho/ (namely those at the beginning of words and those with a vowel preceding), while others were still /yo/ (e.g. those after **s* + morphological boundary) – but this phonological split was not accompanied by an orthographic split, the creation of a new sign. In fact, it would be rather surprising *if* such a new sign had been created: for even at stage III Greek already had sequences of /ho/, and these were written with the simple <o> sign (cf. *o-ro-me-no* /horomenos/ < **sor-*). At stage IV, the choice was therefore not between (a) having *one* sign (<jo>) for the two sound sequences /yo/ and /ho/ or (b) having *two* signs (<jo> + new X) for them, but between (c) having *two* signs (<jo> and <o>) for the two sound sequences /yo/ and /ho/ or (d) having three signs (<jo>, <o> + new X) for them. It is clear that choosing option (d) rather than (c) would have been singularly messy.

9. If both Kiparsky's explanation of the *o*-stem genitive singular in the Greek dialects and the preceding argument about the development of Mycenaean orthography is accepted, it follows that the Mycenaean *o*-stem genitive singular, though transcribed as *-Co-jo*, was actually pronounced as /-ōho/ at the time of our

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[8] The synchronic (sociolinguistic) statement by Chadwick (1983: 83) is similar in essence: 'we postulate a standard treatment of **y* > ø [...] and a substandard retention of **y*'.

tablets. One might object to this conclusion that the case of such genitives is unlike that of the material adjectives as long as we cannot point to variant spellings with *-Co-o*. We have already seen (§2.5) that some doubts surround the interpretation of PY Un 1321.3 *to-o* and PY Xn 1342.1 and KN Od 666.a *to-so-o* as thematic genitives and we may therefore not want to press them (or the only other potential candidate, KN Fs 4 *a-ro-do-ro-o*: cf. Lejeune 1972b: 13–17, Ruipérez 1979: 284) into service now. But neither does this seem necessary. In a morphological form which is as frequent as the thematic genitive, conservative spellings are most likely to be faithfully preserved, all the more when there is no particular reason to give them up. Such a reason would have been the existence of frequent forms in /-oyyo(s/n etc.)/ which would also end in graphic *-Co-jo* and thus create the potential of misinterpretations. Adjectives like αἰδοῖος, γελοῖος, ἀλλοῖος and ὁμοῖος would fit this bill, but they are rare in comparison with the thematic genitive and overall of such limited number that they could easily be identified if they ever occurred in a Linear B text. The only non-genitival forms in *-Co-jo* listed by Ruijgh (1967: 271–272) are the three personal names *wi-jo-ro-jo*, *do-ro-jo* and *du-wo-jo/dwo-jo*. To say that, because of these few items, the familiar spelling *-Co-jo* should have been given up would be like saying that French plurals such as *neveux, cheveux* or *aveux* must be abandoned because there are adjectives such as *amoureux, affreux* and *paresseux* (the latter being in fact much more common than the Greek adjectives in -οιος, and the former much rarer than the Greek thematic genitives). Or to put it differently: to write the sign <jo> at the end of a thematic genitive was simply as normal as to write the sign <s> at the end of English plurals like *bags* and *houses* – where the sign <z> would be phonetically more appropriate.

10. With this result we may return to the problem of the masculine *ā*-stem genitives. Among the theories reviewed in §2, only the one by Szemerényi(-Haug) is potentially affected by the

preceding discussion: all the others were questioned because of morphological rather than orthographic considerations. Table III shows how Haug (2002: 94) tries to adapt Szemerényi's account to the Kiparsky development (note that, while the phonological developments in each column are the same as in Table II, the numbering of the stages is not exactly the same; again the column for the adjectives of material is added for comparison).

Stage	gen. sg.	masc. *ā*-stem gen.	adj. of material
I	*-*osyo*	*-*ās*	*-*eyos*
II	*-*ohyo*	(analogical) [*-*āhyo*] > *-*āyo*	*-*eyos* (Myc. -*Ce-jo*)
III	*-*ohyo* (Myc. -*Co-jo*)	*-*āho* (Myc. -*Ca-o*)	*-*ehos* (Myc. -*Ce-o*)
IV	*-*ōyo*	*-*āho*	*-*ehos*
	(but Aeol. -*oyyo*)		
V	*-*ōho*	*-*āho*	*-*ehos*
VI	*-*ōo*	-*āo* (-ᾱο)	-*eos* (-εος)
etc.			

Table III: Haug's explanation of the masculine *ā*-stem genitives (based on both Szemerényi and Kiparsky).

According to Haug's model, Mycenaean Greek would be situated at stage III (with the change of intervocalic *-*y*- into /-h-/ completed in *-*āyo* > *-*āho* and *-*eyos* > *-*ehos*); but again, along the lines laid out above (§8), one might argue that Linear B literacy was introduced at stage II (when intervocalic *-*y*- still existed). Hence the objection raised before (§2.2): why are there no variant (= conservative) *ā*-stem genitive spellings in -*Ca-jo* just as there are conservative spellings in -*Ce-jo* for the adjectives of material? Apart from the *ultima ratio* proposed by Haug,[9] there are two possibilities: either (a) there were strong reasons why a conservative spelling in -*Ca-jo* should be abandoned as swiftly and completely as possible or (b) the suggested chronology is somehow wrong.

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[9] Intervocalic *-*y*- lost more quickly in *-*āyo*- than in *-*eyos* (cf. §2.2): *-*eyos* would then still be valid at stage III, the beginning of Linear B literacy could be dated to stage III, and our tablets would belong to stage IV.

11. Let us start with (a). The situation with *-Ca-jo* is in fact different from that with *-Co-jo*. We have seen that the latter could hardly be misinterpreted (§9). This is not true for *-Ca-jo*. Adjectives in /-ayyo-/ (later -αῖος/-αιός) are extremely common in Greek. Some of them are derived, like most of the few adjectives in -οῖος, from *s*-stem nouns (e.g. γεραιός, κεραιός, κνεφαῖος; cf. §8 on Myc. *ke-ra-ja-pi*); these are relatively few in number. Adjectives (and deadjectival nouns) derived from *ā*-stem nouns, on the other hand, are omnipresent in Greek, and well-represented in Mycenaean itself (e.g. *a-ko-ra-jo* ~ ἀγοραῖος, *o-pi-tu-ra-jo* ~ *ὀπιθυραῖος, *ku-na-ja* ~ γύναιος, *di-u-ja-jo* ~ *Διϝyαῖον, etc.).[10] Again, these alone might not have been a decisive factor preventing another group of words ending in the same two-sign sequences. But the *ā*-stem derivatives also provided a wealth of male personal names based on original adjectives, patronyms or ethnic names: e.g. *ko-ni-da-jo* ~ Κοννιδαῖος, *a-ka-ma-jo* ~ Ἀ(λ)κμαῖος, *a-ka-ta-jo* ~ Ἀκταῖος, *ti-qa-jo* ~ *Θισγʷαῖος etc. (cf. Ruijgh 1967: 218–230). The existence of these nominatives next to homographic genitives of male *ā*-stem names would have been a real inconvenience in lists where both genitives and nominatives are so frequent. For instance, forms such as *ko-ni-da-jo* (KN As 1516.7) and *ku-da-jo* (KN V 1004) might have referred to either the nominatives *Κοννιδαῖος and *Κυδαῖος or the genitives of Κοννίδας and Κύδας respectively, and it is by no means clear that the context would always have decided the matter. Of course, homographs were common in Mycenaean book-keeping anyway, but the danger of a mix-up of

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[10] The question of the origin of -αῖος based on *ā*-stems is not immediately relevant here; whereas Chantraine (1933: 46) assumes a 'gémination expressive du *y*' (i.e. *-āyo- > *-ắyyo-), Ruijgh (1967: 212) suggests that '-*ayyo*- remonte à *-eə₂-yo-' regularly. It is also possible that *-ā-yo- was remade into *-ā-iyo- (> *-aiyo- ~ *-ayyo-) with a 'Sievers variant' of the suffix when intervocalic *-y- started to disappear, so as to maintain the transparency of the derivational type (cf. e.g. χθόνιος with *-iyo- replacing *-yo- in order to avoid *χθόνyος > †χθοῖνος).

two different persons was rarely as acute as here[11] – and at the
same time as easily avoidable by using the spelling -Ca-o for the
genitive of the masculine ā-stem names once the ending had
become /-āho/.

Even so, we may ask how likely it is that older genitive spell-
ings with *-Ca-jo would have been weeded out completely
when the younger spellings with -Ca-o became feasible. After
all, among the dozens of names in -Ca-jo there is, to my
knowledge, not one for which the context would make a geniti-
val interpretation more plausible than a nominatival one. It is
one thing to explain the consistent use of the o-stem genitive in
-Co-jo through conservative orthographic habits, but quite
another to postulate equal consistency in the usage of an innova-
tive orthography: we can hardly presuppose a rigid scribal
school system which could have imposed, from one day to the
next, new spelling rules which nobody dared to break. Instead,
we should consider option (b) and see what can be done if we
revise the chronology.

12. As far as I can see, the only way to do this, while main-
taining Kiparsky's phonological developments as well as an
o-stem genitive model, is to date down the creation of the
remodelled masculine ā-stem genitive. Because there is no
evidence of genitive spellings with *-Ca-jo, as we have just seen
(§11), there should never have been a stage with */-āyo/. In
other words, /-āho/ must have been analogically created only
when *-ōyo had already become /-ōho/; and since /-ōho/ already
existed in Mycenaean times (cf. §9), there is nothing to speak
against this. Table IV shows how it all works: its stages are
exactly parallel to those of Table II, which illustrated Kiparsky's
theory, and the only thing which is added is the ā-stem column.

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[11] One should also bear in mind the possibility that patronyms in /-iyos/
were used in Mycenaean just as in Homeric and later Aeolic Greek (where
they are an archaism): thus, in a text like *ku-da-jo to-so pe-mo reference
might have been made to a Κυδαῖος (nom. of the rubric), to a Κύδᾱς (gen.),
or to the son of a Κύδᾱς (nom. of the rubric).

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Stage	gen. sg.	masc. *ā*-stem gen.	adj. of material
I	*-osyo*	*-ās*	*-eyos*
II	*-ohyo*	*-ās*	*-eyos*
III	*-ōyo* (Myc. -*Co-jo*) (but Aeol. -*oyyo*[12])	*-ās*	*-eyos* (Myc. -*Ce-jo*)
IV	*-ōho* (Myc. -*Co-jo*)	(analogical) *-āho* (Myc. -*Ca-o*)	*-ehos* (Myc. -*Ce-o*)
V	*-ōo*	-*āo* (-αο)	-*eos* (-εος)
VI	-*ō* (-ου)	(Ion. -(ε)ω, analog. Att. -*ō* (-ου))	(Attic:) -*ōs* (-ους)

Table IV: A new explanation of the masculine *ā*-stem genitives (based on Kiparsky's developments of **y*).

It will be recalled from §8 that Linear B literacy was introduced at stage III, and that our tablets are to be placed at stage IV. The absence of *o*-stem genitives in -*Co-o* has been explained before (§9), as has the co-existence of -*Ce-jo* and -*Ce-o* in the adjectives of material (§8). Since the sign <jo> had also come to stand for /ho/ at stage IV, one might perhaps argue that -*Ca-jo* would nevertheless have been an acceptable spelling alternative for -*Ca-o* (just as *a-ro₂-jo* could stand for /aryohos/). However, the existence of the names and adjectives in -αῖος was a strong enough reason not to attempt any such spelling experiment, the arguments against it still being those discussed above (§11). The difference is just that, according to the new chronology, there was not even a tradition of spelling the genitives as **-Ca-jo*, so that it would have been perverse to introduce such a variant.

13. If this is correct, the only rival of the masculine *ā*-stem genitives in -*Ca-o* which we might possibly detect in the Mycenaean texts would be a genitive in -*Ca*, a remnant of stage III just as -*Ce-jo* in the material adjectives and -*Co-jo* in the *o*-stem genitives are remnants of stage III. However, even if genitives in **/-ās/* may still have been used by some conservative speakers alongside those in /-āho/, the Mycenaean scribes would have been foolish to prefer them in their documents.

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[12] Cf. the arguments of Ruijgh (1978: 420–421) against a post-Mycenaean origin of the Aeolic dialect group (García Ramón 1975).

Morphological conservatism is not the same as orthographic conservatism, and in this case it would have meant to opt for a form whose spelling was the same as that of the overwhelming number of other *ā*-stem case forms: a form in -*Ca* could also stand for nom. sg., acc. sg., dat.(-loc.) sg., instr. sg. (?), nom. pl., acc. pl. and instr. pl. To have the opportunity of replacing it by something more recognisable in at least one case was a godsend, and the fact that the spelling of the gen. sg. was now identical to that of the gen. pl. (also -*Ca-o*, here for /-āhōn/) was a very small price to pay. We understand why the scribes of KN Sd 4403.a and KN So 4430a, who apparently (though not certainly) did use a genitive *ko-ki-da*, found no followers (cf. Lejeune 1958: 38–39; Aura Jorro 1985–1993: 1.372–373, s.v. *ko-ki-da*).

14. One implication of this account of the masculine *ā*-stem genitives in /-āho/ as relatively recent creations of the 'Mycenaean' epoch (i.e. of the 15th century or so) is that Aeolic forms in -ᾱο (later contracted -ᾱ) must be regarded as dialect borrowings. If the *o*-stem gen. sg. *-*ohyo* of stage II became *-*ōyo* virtually everywhere, but *-*oyyo* in Aeolic, and if this *-*oyyo* survives, in an apocopated form, in East Thessalian -οι, 'Proto-Aeolic' cannot have possessed at any stage of its history a stage IV genitive in *-*ō(h)o*, after which *-*ā(h)o* was built.
This might look like a drawback of the theory presented here, until we realise that we have to assume considerable dialect borrowing anyway in order to account for these genitives *unless* we are prepared to argue that the phonological ancestor of analogical -ᾱο dates back to a dialectally undifferentiated Proto-Greek. It is true that one could in principle pursue this line of argument with some of the other theories presented in §2, but it would be *a priori* unappealing and it would even be impossible if any of the scattered examples of masculine *ā*-stem genitives in -ᾱς in dialect texts of the first millennium were not late recreations that match the original state of affairs by accident (as argued forcefully by Morpurgo 1960/1), but rather preserved remnants of the pre-analogical declension pattern. To assume,

on the other hand, that Proto-Aeolic took over the innovated /-ā(h)o/ from a neighbouring dialect requires little justification: in Proto-Aeolic, too, a means of differentiating the genitive from the nominative must have been welcome. One might even suggest that, *if* Proto-Aeolic had ever possessed its own *-*āyo* next to *-*oyyo*, the pressure to bring it in line by reshaping it into *-*ắyyo* > †-αι(ο) would have been irresistible (cf. e.g. (dat.-)instr. pl. -αις after -οις).

15. It is of course notoriously difficult to rule that analogy can or cannot occur at a particular point in time or in a particular paradigmatic slot. However, it is reasonable to think that analogical creations which fit well into a preexisting paradigm are particularly likely to come into existence. From this point of view, too, the suggestion that the masculine *ā*-stem genitives obtained their special form only when the *o*-stem genitives had become /-ōho/ has its advantages. Unlike a genitive in */-āyo/, an analogical genitive in /-āho/ could immediately be anchored within its paradigm. While the former would have been isolated since there was no other ending in which the stem-vowel was followed by /-y-/, there were already other endings of the *ā*-stem paradigm starting with /-h-/ after the stem vowel when /-āho/ arose: the dat.-loc. pl. in /-āhi/ < *-*āsi* (Myc. -*Ca-i*) and, more importantly, the plural counterpart of the new singular genitive, /-āhōn/ < *-*āsōm* (Myc. -*a-o*). With the exception of the instr. pl. in /-āp^hi/ (Myc. -*Ca-pi*), these were also the only parisyllabic forms of the paradigm: everywhere else the stem-vowel had coalesced with the ending into a single syllable. Thus, the /-ōho/ phase in the history of the *-*osyo*-genitive was indeed *the* ideal time for the analogical donation, more so than anything that came before or after.

16. Looking back, the account presented here has two main advantages: (1) It is able to explain how an ending /-āho/ could have arisen in analogy with its closest structural parallel: the *o*-stem genitive singular which, before the decipherment of Mycenaean, had always been taken to be its model. There is no

need to invoke proportional analogies with far less likely points of contact such as an interrogative/indefinite pronoun (Geiss, Ruijgh) or a dative plural (Householder, López Eire, Meier-Brügger), nor to reconstruct proto-forms which pay little attention to the essential similarity of Mycenaean with later Greek (Hajnal). (2) It does not rely on the prior existence of *-āyo, which would make us expect Mycenaean variant spellings in *-Ca-jo, no matter how *-āyo itself would have come about (Szemerényi-Haug, (Lucidi-)Morpurgo Davies).

Admittedly, however, the same two advantages could be cited in favour of Lillo's theory (§2.5), as long as one accepts, against the restricted Mycenaean evidence, o-stem pronominal genitives such as *toso. Lillo's philological arguments in support of such forms might appear to be strong enough to offset qualms about the reconstruction itself, and the aforementioned alternative ways of explaining the predominance of -ου (allegedly derived from *-oo) among the Homeric pronouns as opposed to -οιο among the Homeric nouns share the weaknesses that characterise all *ad hoc* explanations of their kind. In order to pass a balanced judgment, we must therefore look at this matter too, even though it is not immediately connected with the question of the masculine ā-stem genitives. If it were possible to deal with the Homeric data in a less *ad hoc* manner – and perhaps even more successfully than Lillo –, the other points made in this article would indirectly gain additional strength as well.

17. Lillo (1985: 254) states that 'the genitive of thematic declension is in -οιο < *-osyo, whereas the pronominal declension adopted the ending *-so, as it is clear from the fact that in the books of *Iliad* studied by Professor Ruipérez in his paper just quoted [i.e. Ruipérez 1979, A.W.], 76,32 % of thematic singular genitives of the pronominal forms show *-oo endings, as opposed to the rest 23,68 % with an ending in -οιο. On the other hand, in the nominal class, 70,92 % of these genitives end in -οιο and only 29,08 % end in *-oo.' These figures are indeed remarkable, but they do not give a complete picture of the

statistics in Ruipérez (1979: 290). Ruipérez looked at three groups of words: (a) nouns, adjectives and participles in *Iliad* 1 and 11, (b) τοῖο, τοῦ used as an article in *Iliad* 1–12, (c) pronouns (τοῖο/τοῦ as well as ἄλλου, τοῦδε, τούτου, κείνου, αὐτοῦ, τοίου, τοιοῦδε) in the entire *Iliad*. For each of these groups he distinguished between (I) genitives in -οιο before consonant and in *-οι᾿ before vowel (written as -ου without vowel correction), (II) preconsonantal genitives in -ου which were placed in the thesis and could therefore be resolved into *-οο and prevocalic genitives in -ου which counted as short (by vowel correption) and could therefore be interpreted as *-ο᾿, and (III) genitives in -ου which could not be resolved into *-οο or *-οι᾿ because they occurred in the arsis, nor be rewritten as -οι᾿ because they were preconsonantal. Ruipérez's figures are reproduced in Table V:

	I		II		I+II	III	Total
	-οιο	*-οι᾿	*-οο	*-ο᾿		-ου	
(a) Nouns, adjectives, participles	97	3	21	20	141	16	157
(b) Articles	3	1	1	0	5	1	6
(c) Pronouns (incl. τοῖο, τοῦ)	15	3	49	9	76	59	135

Table V: Ruipérez's statistics of the thematic genitive endings in Homer.

It will be noticed immediately that this count is heavily biased *against* genitives in -ου: these are reinterpreted/rewritten as *-οο (and *-οι᾿) wherever the metre allows it. This would be acceptable if there were really no other way of explaining the attested form -ου. However, we have seen in §6 that -ου can equally well be traced back to *-ōo *without* an intermediate stage *-οο and that the (infinitely small number of) verses of the Ἰλίου προπάροιθεν type cannot be used as uncontroversial evidence for the alleged *-οο either. Column II of Ruipérez's statistics thus shows no more than that Homer must have known an alternative genitive ending next to -οιο, but *not* whether this ending was *-οο or *-ō. In fact, the curious absence of Homeric -ου in the thesis of the fifth foot of a hexameter strongly favours the latter, not the former reconstruction, since there would have

been no reason to shun a sequence of two shorts before contraction.[13]

18. At the same time, there is one striking thing in the above figures to which Ruipérez and Lillo do not pay sufficient attention. It is the extraordinarily high number of 'irreducible' -ου instances in group (c), which is confirmed by Chantraine (1958: 166) who talks about the entire *Iliad* and *Odyssey*: 'Il subsiste pourtant 575 exemples de ου employé au temps fort en particulier dans les mots τοῦ, τοῦδε, τοὕνεκα, οὕνεκα, etc.' Can these really all be 'des ionismes récents, introduits dans le répertoire de la langue à une époque et empruntés à un dialecte où la désinence -ου avait remplacé toutes les autres variantes' (Ruipérez 1979: 290)? Even if we were to posit *-oo for Ruipérez's column II, more than 50 % of the pronominal forms in -ου would still be there (59 in column III, against 58 or 61 which are 'emended away'); and these include 'irreducible' τοῦ in the common and not particularly recent-looking formula verse ὣς ἔφαθ᾽, οἳ δ᾽ ἄρα τοῦ μάλα μὲν κλύον ἠδὲ πίθοντο 'thus he spoke, but they listened to him attentively and obeyed' (*Il.* 7.379, 9.79, 14.378, 15.300, 23.54, 23.738, *Od.* 3.477, 15.220, 22.178, 23.141), countless instances of verse-initial τοῦ as well as formulaic ὣς φάτο, τοῦ δ᾽ κτλ. (*Il.* 11.396, 21.114, *Od.* 19.89, 22.354, 22.361, 24.345). Certainly none of this lends credibility to claims about the former existence of forms like **toso*. Moreover, by postulating an original pronominal *-oo < *-oso, Lillo and Ruipérez might perhaps be able to account for the contrast between the 63,7 % -οιο endings in group (a) vs. only

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[13] This is pertinently highlighted by Kiparsky (1967: 632) and Haug (2002: 86), but the former wants to use it as evidence for his unlikely metathesis *-ōo > *-oō, and the latter rather vaguely suggests that 'la tendance aux dactyles était si forte qu'un *biceps* formé de deux voyelles identiques en hiatus n'étaient [sic] pas satisfaisant, du moins là où le hiatus était ancien [...] et où par conséquent les contractions étaient achevées dans le vernaculaire'. There is a single exception to this rule: *Od.* 14.239, ending in δήμου φῆμις (cf. Chantraine 1958: 46); the same passage shows an uncommon number of further examples of spondees in the fifth foot (*Od.* 14.246, 14.252, 14.256).

13,3 % -οιο endings in group (c), but their solution does not
explain the divergence between groups (a) and (c) with regard to
their contracted or non-contracted treatment of the alleged *-oo:
why should there be 71,9 % uncontracted non-οιο cases in group
(a), but only 49,6 % in group (c)? If, on the other hand, *no*
regular *-oo is posited at all, this gap obviously disappears. All
we still have to do is to elucidate why our alternative to *-oo,
viz. unitary *(*)-ō*, is so much more frequent among the pronouns
than among the nouns. As in the Lillo-Ruipérez theory, the obvi-
ous hypothesis would be that *-ō* first came into being in the
pronominal declension and thence spread to the nouns. But why
should this be so? There is no good reason why Kiparskyan
*-ō(h)o < *-ōyo* should have contracted into *-ō* more quickly
and vigorously among the pronouns, and even less of a reason
why the contraction should have happened early enough to make
tō (~ τοῦ) employable already in the above-mentioned formu-
lae. Hence, while *-ōho > *-ōo > contracted -ō* might still be a
valid scenario for the prehistory of e.g. Attic genitives in -ου, we
may have to take a different route in order to do justice to the
philological data found in Homer – a route which requires us
once again to embark upon a brief detour.

19. It is well-known that the Greek dialects have two different
endings for the thematic dative plural ending: -οισι, derived
from the original loc. pl. *-oisi* (← *-oisu*; cf. Skt. *-eṣu*), and -οις,
the original instr. pl. *-ois < *-ōis* (cf. Skt. *-aiḥ*). Most dialects
generalise one or the other: thus, Ionic prefers -οισι, whereas
Doric uses -οις. In classical Attic, too, -οις is the usual ending,
but in the older inscriptions (first half of the fifth cent.) both
-οισι and -οις occur, the shorter variant being more common in
the article than in the other words. This situation has been
convincingly explained by Kretschmer (1909: 56–57) and
Ruijgh (1958: 98). Like its sister dialect Ionic, Proto-Attic also
generalised -οισι, but in sequences such as τοῖσι θεοῖσι a quasi-
haplological or proclitic 'shortening' – in analogy with prevoca-
lic, elided τοῖσ(ι) – of the first -οισι took place, yielding τοῖς

θεοῖσι (cf. τοῖσ᾽ ἵπποις = τοῖς ἵπποις). Subsequently, the short-ened -οις, which is therefore quite different from the 'instrumen-tal' -οις of Doric, spread into the other word classes and the type τοῖς θεοῖς took over. Similarly, in Lesbian -οισι is generally used, but in the article τοῖς is the usual form. And again in Homer, 'il est probable [...] que la forme en -οις est ancienne dans les pronoms et particulièrement dans l'article. Les poèmes homériques présentent une vingtaine d'exemples de τοῖς dans des expressions nettemenet formulaires [e.g. *Od.* 15.439 τοῖς δ᾽ αὖτις μετέειπε γυνή 'among them again the woman spoke' ~ *Od.* 22.131 = 22.247, 14.459 = 15.304; *Il.* 10.196 τοῖς δ᾽ ἅμα Μηριόνης καὶ Νέστορος ἀγλαὸς υἱός 'to those, together, Meriones and the noble son of Nestor' ~ *Il.* 12.372, 17.384, *Od.* 3.390; A.W.]. [...] La finale -οις est fréquente dans l'article et dans les autres pronoms' (Chantraine 1958: 196).
The parallelism with the situation we found in the thematic genitive singular is striking:

pronominal -οῖς	:	nominal -οισι
pronominal -ου	:	nominal -οιο

All things being equal, one might then argue that, just as prono-minal -οις arose by a generalisation of (originally prevocalic) shortened -οισ(ι), pronominal -ου could have arisen by a genera-lisation of prevocalic -οι(ο). It has already been mentioned that -οι is in fact the *o*-stem genitive ending of East Thessalian. So in Thessalian exactly the same development as in the Attic dative plural must have taken place: via an intermediate *τοῖ θεοῖο in analogy with *τοῖ(ο) ἵπποιο, -οι spread into the nouns and eventually resulted in τοῖ θεοῖ. Homeric -ου, on the other hand, might be nothing but an Ionicising rewriting of earlier Aeolic *τοῖ – with the required one long syllable instead of the two short ones of alleged *τόο < *toso.

20. Unfortunately, to postulate a proto-epic form *τοῖ is probably too bold in view of the unanimous τοῦ of the tradition where no trace of *τοῖ is found, although such a form could

have been treated more generously, like any other Aeolism. In reality, the solution is much simpler as long as we continue to follow Kiparsky.

We have seen in §6 that Homeric -οιο can be regarded as a replacement form for older *-ōyo > *-ōho, no matter if we believe in an Aeolic phase of epic language or not. Once *-ōho had become *-ōo it would have lost its metrical structure through contraction and only its Aeolic counterpart could save it from this destiny. But if, as Homeric and Attic τοῖς as well as East Thessalian τοῖ show, pronouns had a tendency to transfer the prevocalic, elided form into all contexts, this would also have been true for forms such as *tōho < *tōyo < *tohyo < *tosyo. Hence, we can operate once again with the above parallelism:

pronominal -οῖς   :   nominal -οισι
pronominal *-ōh   :   nominal *-ōho

Nominal *-ōho later became *-ōo and was eventually contracted into -ου. Pronominal 'elided/shortened' *-ōh, however, remained unchanged, except for the unavoidable loss of final *-h. 'Irreducible' Homeric -ου in τοῦ is therefore no different from equally irreducible Homeric -οις in τοῖς. The starting and end point is *tōh > *tō, written – once the Greek alphabet was invented – first as TO and in classical times as TOY.[14]

21. 'Irreducible' -ου in the Homeric nominal paradigm can thus be said to have a double source: On the one hand it *may* represent contracted *-ōo, a patently late development. On the other hand, it must have arisen in the same way in which the nominal

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[14] Note that the *-ō- of *-ōho was, *qua* outcome of the first compensatory lengthening, closed in Attic-Ionic and 'mild' Doric and thus not identical to inherited PIE *ō > Attic-Ionic/'mild' Doric ω. *If* PY Un 1321.3 to-o were a genitive of *to- (cf. §2.5), it might constitute a parallel to the 'plene spelling' qo-o for acc. sg. /g^{w}ōn/ or acc. pl. /g^{w}ō(n)s/ in PY Cn 3.2 (cf. Aura Jorro 1985–1993: 2.207, s.v. qo-o, with bibliography; Probert 2009) and could therefore not be used as evidence for a post-Mycenaean date of the elision of */tōho/ into */tō(h)/.

dative plural in -οις arose in Attic Greek (cf. §19): by transfer
from the pronoun/article. Although such a transfer would have
been facilitated by the spread of the use of the pronominal stem
to- as an article, it does not necessarily presuppose this; after
all, in the nominative plural, too, the Proto-Indo-European
pronominal ending *-oi* (cf. Skt. *te* ~ Dor. τοί < *toi*) must have
replaced the original ending of the nominal inflection (*-ōs*)
long before anything like the article came into existence. Hence,
the occurrence of 'irreducible' -ου even in a Homeric noun
never constitutes an ultimate proof for the late creation of a
given verse.

No doubt caution must be exercised here, but there is nothing in
principle to stop us from further assuming that occasional
'irreducible' /-ō(h)/ endings already intruded into the Mycenae-
an nominal inflection. That in turn raises the vexed question of
the existence or non-existence of Mycenaean genitives in *-Co*
(instead of *-Co-jo*). At present I do not see how the issue could
be decided, but it may be fair to say that the 'instrumental/
ablatival' interpretation of these remarkable forms (cf. esp.
Morpurgo 1960, Hajnal 1995: 247–285; PIE *-ōd* or *-oh₁* >
/-ō/) is no longer the only philologically sound possibility.[15]

22. However that may be, the fact that otherwise inexplicable
philological evidence suddenly falls into place is certainly no
negligible achievement of Kiparsky's theory. The distribution of
the Homeric genitives in -ου can now be added to the arguments
in its favour. Moreover, I hope to have shown that the puzzling
-ᾱo (Myc. *-Ca-o*) genitives of masculine *ā*-stems are explained
most straightforwardly if we let them originate, through analo-
gy, at the time when the *-osyo* ending had reached the *-ōho*
stage in Kiparsky's evolution. The conventions of Mycenaean

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[15] Thus, Luria (1957: 324) may have been right, although he was unable
to *explain* 'irreducible'-ου in Homer. Note that the reverse suggestions by
Maurice (1992) and Bader (1992: 8–13), for whom Homeric 'irreducible' -ου
is a rewritten version of a Proto-Indo-European/Mycenaean ablative/instru-
menttal in *-ō(d)* (Maurice) or even a genitive in *-os* (Bader), do not account
for the distribution of -ου among pronominal and nominal stems.

orthography even allow us to assign an approximate absolute
date to the innovation: it must have happened at some point
between the beginnings of Linear B literacy and the first occur-
rence of -*Ca-o* spellings on the Knossos tablets – and thus
probably during the 15th century B.C. As often, the Linear B
documents help us better to understand the historical grammar
of Greek, but for once this is even true when, at first, it looked
as if all had only become more complicated through their
decipherment.

Appendix: Mycenaean masculine ā-stem genitives in -Ca-o

The following list includes those forms in -*Ca-o* for which an
interpretation as masculine *ā*-stem genitive is more or less plau-
sible; it is based on Aura Jorro (1985–1993) and Aravantinos *et
al.* (2005).

a-ka-to-wa-o (TH Ug 4, 5, 6), a-ko-so-ta-o (PY Cn 40, 45, 453,
599, 702, 719), a-ma-ru-ta-o (PY En 609, Eo 224), a-no-qo-ta-o
(KN Dq 45, E 847), a-pi-qo-ta-o (PY An 261, 616 (a-pi-qo-<ta->o)),
a-wa-ra-ka-na-o (PY Un 1314), a$_2$-ta-o (TH X 189.7),
di-da-ma-o (?) (PY Xa 184), e-ko-me-na-ta-o (PY An 661, Aq
218), e-ma-a$_2$-o (?) (KN D 411), e-pe-i-ja-o (TH Ug 41, 42),
e-pi-wo-qa-ta-o (PY Sa 1266), e-te-wa-o (KN X 8270),
]e.-wo-ta-o[(PY Cn 314), i-wa-ka-o (PY Jn 310),]ka-ma-o (?)
(KN C 7059), ka-pe-se-wa-o (PY Cn 453), ke-re-ta-o (PY Cn
1287), ke-u-po-da-o (KN C 1044, Dq 442),]ke-wa-o (PY Xa
1337),]ko-ta-o (KN Dq 7126), ko-de̲-wa-o (TH Of 26), me-ka-o
(PY Na 571), ne-da-wa-ta-o (PY An 657), o-*34-ta-o (TH Of
33), pe-re-qo-ta-o (PY Eo 444) ~ qe-re-qo-ta-o (PY En 659),
pe-ri-qo-ta-o (KN Dq 42, 46, 8351 (pe-ri-qo[-ta-o)),]pi̲-wo-ta-o[
(PY Cn 314), pu-ra-ta-o (PY Jn 605), qe-re-wa-o (PY Cn 655),
qo-qo-ta-o (PY Ea 270, 305, 757, 802),]ra-o (?) (PY Wa 730),
ri-*82-ta-o (TH Z 853), su-qo-ta-o (PY Ea 59, 109, 132, 480,
481, 776),]ta-o (KN Dq 7119, 7137), ta-ra-ma-ta-o (PY Ae 108,
134 (ta-ra-ma<-ta>-o), 489, Ea 821),]to̲-wa-o (TH Ug 20),
]wa-o (PY Xn 1006, TH Ug 8),]wa-ta-o (TH X 189),
wi-jo-qo-ta-o (KN Dq 1026, Ld 598), wo-ro-ti-ja-o (PY Es 644,
650).

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