

**Arcadian *λευτον* (IG 5.2.3, 3) Plus/Minus *λευτουντες* (IG 5.2.16, 10)  
with an Appendix on *λεύσσω*, *λεύσω* and Proto-Greek \*-kǵ-**

**Alan J. Nussbaum**

1. Homer and the tragedians frequently attest a present *λεύσ(σ)ω* meaning ‘see’. The first Homeric occurrence is typical enough:

*λεύσσετε γὰρ τό γε πάντες ὃ μοι γέρας ἔρχεται ἄλλη.*

“For you all see that my prize is going elsewhere.” (A 120)

1.1 The standard etymology of this present (so, e.g., *DELG*<sup>2</sup>, *EDG*, *GEW* — all s.v. *λεύσσω*) derives it from the IE root *\*leuk-*, which is the basis for forms all over the family meaning ‘light up, shine, appear, illumine’ and so on.<sup>1</sup> The assumed pre-form *\*leuk-ǵo/e-* would yield a Homeric *λεύσ(σ)ω* unproblematically.<sup>2</sup>

1.2 The received view that *λεύσ(σ)ω* simply reflects *\*leuk-ǵo/e-* is complicated, however, by the difficult questions posed by two Arcadian inscriptional forms: *λευτον* (IG 5.2.3, 3) and *λευτουντες* (IG 5.2.16, 10 possibly or probably to be substituted for the older reading *λευσουντες*<sup>3</sup>). These forms, evidently participles, are plausibly taken to mean ‘seeing, with the eyes open, knowing(ly)’ and therefore to imply a *λευτο/ε-* that means the same thing as *λευσ(σ)ο/ε-* (see especially Morpurgo Davies [1987], 459-61). The two passages in question are:

*IG 5.2.3* (Tegea):

*τὸν ἱερῶν πέντε καὶ εἴκοσι οἷς νέμεν καὶ ζεῦγος καὶ αἶγα· εἰ δ’ ἂν καταλάσσει,  
ἰνφορβισμόν ἔναι· τὸν ἱερομνάμονα ἰνφορβιέν· εἰ δ’ ἂν λευτον μὲ ἰνφορβιῆ, ἡκοτὸν  
δαρχμὰς ὀφλὲν ἰν δάμον καὶ κάταρρον ἔναι*

“The priest is to pasture twenty-five sheep and a team and a goat. If he departs from this, there is to be an *emphorbism*. The *hieromnamon* is to impose the *emphorbism*. If he

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<sup>1</sup> There are no forms outside the present (e.g. an aor. *\*λεῦξ(α)-*) to confirm *\*leuk-* as the root etymology. But the feeble indications of an aorist stem *λεῦσ(σ)α-* at *A. Pers.* 710 (*ἔλευσ[σ]ας*, v.l. *ἔλευσες*, *ἔλευσσε*) and *S. OC* 1524 (*λεύσ[σ]ατ’*, v.l. *λεύσσειτ’*) do not seriously interfere with the established etymology either. These feeble indications are, after all, feeble. And no modern editor seems to have chosen them. Even if, moreover, there were cogent evidence of an aor. *λεῦσ(σ)α-*, it could easily be explained as analogically made to *λεύσ(σ)ω* on the model of verbs showing the pattern of which e.g. *πλάσσω* (S.+): *ἔπλασ(σ)α* (Hes.+): ‘form’ and *ἔρέσσω* (Hom.+): *ἤρεσ(σ)α* (Hom.+): ‘row’ are representative.

<sup>2</sup> See the Appendix (§§12-15).

<sup>3</sup> *IG: ΛΕΥΣΟΝΤΕΣ*. On the history of the revision of the reading see Morpurgo Davies (1987), 462-3.

knowingly fails to impose the *emphorbism*, he is obliged to pay a hundred drachmas to the people and he is to be accursed.”

IG 5.2.16 (Tegea):

καὶ ἀνγράψαντας τὸ ψάφισμα τότε τὸς στραταγὸς τὸς περὶ Στρατέαν εἰς στάλαν  
ἀνθῆναι ἰν τὰν ἀγοράν, ὅπως καὶ οἱ λοιποὶ λευτουτες τὰν τὰς πόλιος ἐ[ὺ]χαριστίαν  
ἄνδρες ἀγαθοὶ γίνωνται

“and the associate *stratagoi* of Strateas, inscribing this resolution on a stele, are to put it up in the *agora*, so that the others too, seeing the gratitude of the city, may become exemplary men”

2. The traditional theory (presented and accepted by Dubois [1986] 1.77, 2.23 with references to predecessors) is that the *-τ-* of Arc. *λευτον* and *λευτουτες* is a “graphème figé” replacing an obsolete T-like letter (i.e. the Ionic *sampi*) that spelled *-t<sup>s</sup>-* (< \**-k<sub>i</sub>-* in this case), so that Arc. *λευτουτ-* has the same pre-form (\**leuk<sub>i</sub>ont-*) as *λευσ(σ)ουτ-*. This assessment of the Arcadian form, however, is not very convincing.

2.1 First, the purely epigraphical viability of the account is highly debatable. The problem seems to be (Morpurgo Davies [1987], 462) that there is no second example in Arcadian usage of a letter of this shape that has such a value.

2.2 Although this is less than certain, it may also prove to be the case that the medial consonant of *λεύσ(σ)ω* — and therefore that of *λευτον* — was not really a *-t<sup>s</sup>-* (which is the only thing that should be spelled with *sampi*) in the first place. As is discussed in the Appendix below (§§12-15), it may well be that the pre-form \**leuk<sub>i</sub>o/e-* was syllabified as *leu.k<sub>i</sub>o/e-*, which raises the strong possibility that this stem would have shown the treatment that was regular for medial tautosyllabic *-k<sub>i</sub>-*. That treatment apparently produced from *-k<sub>i</sub>-* a *-s<sub>2</sub>-* (secondary *-s-*) of very early date (and not, or no longer, a *-t<sup>s</sup>-*) — namely the kind of *-s<sub>2</sub>-* which, in combination with a preceding *-n-*, formed the input for the “second compensatory lengthening” in dialects with that particular sound law, but is presupposed by all the dialects in any case. If \**leuk<sub>i</sub>ō* was likewise originally syllabified as \**leu.k<sub>i</sub>ō*, it would presumably have also become \**leus<sub>2</sub>ō* quite early. And the use of a letter with the value *t<sup>s</sup>* and not just *s* would therefore actually be unexpected and would require some further explanation.

3. As emerges clearly from Morpurgo Davies (1987), 464-8, however, there is no obvious alternative to the traditional theory that is especially convincing either.

3.1 A solution whereby Arc. *λευτο/ε-* and non-Arc. *λευσ(σ)ο/ε-* have two different root etymologies (\**leut-o/e-* vs. \**leuk-iō/e-*) is always theoretically possible, but, as the maximally uneconomical explanation, must obviously remain a last resort.

3.2 A root \**leut* ‘see’ with reflexes confined to Greek is satisfying only if this \**leut* ultimately provides a trouble-free elucidation of the entire Greek state of affairs. The reconstruction of a special root that can account only for one verb in one branch would otherwise, almost needless to say, be too costly an assumption.

3.3 A non-problematic inner-Greek account based on an actual \**leut* alone, however, does not in the end appear to be available. In addition to the lack of appeal of a special PIE \**leut* ‘see’ that accounts for nothing but one Greek verb (or possibly just one

Arcadian verb), it seems necessary to accept a solution that involves one of the following doubtful scenarios:

(a) A pres. *\*lemt-o/e-* (Arc. ptcl. *λεύτῶν*) beside pres. *\*lemt-ǰo/e-* (*λεύσ[σ]ω*). But it is quite atypical that Greek would show a *R-o/e-* present beside a *R-ǰo/e-* present from the same root.

(b) A pres. *\*lemt-ǰo/e-* (*λεύσ[σ]ω*) beside what ought to be, in view of (a), an aor. *\*lemt-o/e-* (Arc. ptcl. *λευτῶν*). This is the analysis adopted in *LIV*<sup>2</sup>. But a thematic aorist with an *e*-grade root is difficult to vindicate, as the *LIV*<sup>2</sup> entry itself points out. Nor is aorist participial value exactly the unmarked interpretation for *λευτῶν* plus/minus *λευτοντες* in their respective contexts. Present function seems decidedly less forced — certainly in the passage from *IG* 5.2.3, at any rate.

(c) A root pres. (or even aor.) *\*lemt-/\*lut-* as the locus for the generation of allomorphic alternants *\*l(e)ut-/\*l(e)us-* (the latter before dentals and *-s-*) followed by analogical levelings. This reconstruction is entirely dependent on a starting point that cannot be independently supported and involves further assumed developments that have only the vaguest and most incomplete parallels (perfect-present pl. *(ρ)ίδμες*, *(ρ)ίστε*, whence 3 pl. *(ρ)ίσαντι* ‘they know’<sup>4</sup> and from there the new present *(ρ)ισᾶμι* etc. in Doric?<sup>5</sup>).

3.4 Furthermore, the only forms that could theoretically support a Greek *\*lemt* in a positive way — namely the Hsch. glosses *λευστά· ὄρατά(, λιθοβόλητα)* and *ἄλευστος· ἀόρατα* along with *νηλεύστω* ‘invisible’ once in Theocritus (*Epigr.* 15.21 [*Syrinx*], 20), as if they reflected *\*lemt-tó-* — do not in fact do anything to justify assuming an actual *\*lemt*:

3.4.1 If this *-tó-* derivative were old, it ought to reflect *\*lut-tó-*, of course, and thus have the shape <sup>†</sup>*λυστό-*.

3.4.2 The innovation, moreover, that *λευστό-* therefore manifestly represents is easy enough to explain as analogically made to *λεύσ(σ)ω*, whatever that present reflects.

3.4.2.1 The most direct model for this would be the formal pattern that is in the end observable in the pairs:

*πάσσω* ‘sprinkle’ (Hom.+): *(χρυσό)παστος* (Alc., Hdt.); cf. *(ἐπί)παστον* ‘(kind of) cake’ (Ar., Pherecr.+), *παστέος* (Ar.).

*νάσσω*<sup>6</sup> ‘squeeze, compress’: *ναστός* ‘compressed, solid’ (Hp.+), *ναστός* (*sc. πλακοῦς*) ‘(dense) cake’.<sup>7</sup>

*πίσσω* ‘winnow’ (Ar., Pherecr.+): *ἄπιστος* (Hp.), cf. *πιστικός* ‘for winnowing’ (Phryn. com.+).

<sup>4</sup> The motivation may have been more extensive, however. See Schwyzer (1939), 773 n. 2.

<sup>5</sup> See, e.g., Schwyzer (1939), 665 (n. 3), 773 (§2d); Buck (1955), 127 (§162.9).

<sup>6</sup> This expected correspondent of Attic *νάττω* (Epict. *ap.* Stob.) is at best found only in Hesychius: *†νάσσει· ὀμαλίζει. θλίβει* (Latte); *\*σάξαι καὶ σάττειν νάξαι. ν<ά>σσειν* (Eupol. fr. 477 [Kassel-Austin]?) (Hansen).

<sup>7</sup> *ναστός* is itself analogically made to *νάσσω* on a model like *πάσσω* : *παστός*, since aor. *ἔναξε* (already Hom.) and pf. pass. *νεναγμένος* (Ar., Hp.) — this last also beside an analogical *νένασαι* (Theoc.) — demonstrate that *νάσσω* reflects *\*nak-ǰo/e-*, so that an original *-to-* derivative would have been *\*nak-tó-*, yielding <sup>†</sup>*νακτό-*.

ἀρύσσομαι<sup>8</sup> ‘draw water’ (Hes. [*Op.* 550], Hdt.): cf. (ἀπ)αρυστέον (Ar.), ἀρυστήρ ‘ladle, cup’ (Semon., Alc., Hdt.+), ἄρυστις ‘id.’ (S), ἀρύστιχος ‘little cup’ (Phryn. com., Ar.+), ἀρυστρίς ‘ladle, cup’ (AP); cf. also Ἀρύστας ‘Ladler’(?), the name of an Arcadian trencherman (Xen. *An.* 7.3.23f.).

ἀφύσσω ‘draw water’ (Hom.+): cf. ἀφύστα· κοτύλη· στάμνος (Hsch.).

κορύσσω ‘fit out, furnish; make crested’ (Hom.+): cf. κορυστής ‘(man) wearing a helmet’ (Hom.).

The result of applying this model to the verb under discussion would obviously be:

λεύσ(σ)ω ‘see’: λευστός ‘seen’, ἄλευστος ‘unseen’.

3.4.2.2 But even in the absence of potential direct models of the type -σσο/ε- : -στό-, a λευστό- and/or ἄλευστο- would be reliably produced beside λεύσ(σ)ω merely by the application of the pattern(s) seen in a very large number of other verbs, of which the following random few may serve as representatives:

θύω (Hom.+): ἄθυτος (E.+)

λούομαι (Hom.+), λούω (Hdt.+): ἄλουτος (Hdt., Semon.+)

σταθεύω (Ar.+): σταθευτός (A.+)

And if the pair at issue here is λεύσ(σ)ω ‘see’: λευστός ‘seen, visible’, nothing could be a more relevant case than:

κλύω ‘hear’ (Hes.+): κλυτός ‘renowned’ (Hom.+).

However this may be, the point to emphasize and retain is that the many identifiable pairings of the type(s) -υο/ε- : -υτό- would simply conspire with those of the type -σ(σ)ο/ε- : -στό- to produce once again the attested

λεύσ(σ)ω ‘see’: λευστός ‘seen’, ἄλευστος ‘unseen’.

4. It could be noted, though, that *IG* 5.2.16 may offer a direct inscriptional indication that Arcadian actually had λευσ(σ)ο/ε- in addition to λευτο/ε-. Morpurgo Davies (1987), 468 (“Addendum”) reports (quoting E. Erxleben *via* L. Dubois) that “... further analysis of the relevant squeezes does indeed confirm the readings λευτον and λευτοντες (though in one instance one side of the squeeze, that not normally used by the editors, **may speak for λευσοντες** [emphasis added]).”<sup>9</sup> Furthermore, *IG* (see §1.2 above), followed by other early editions (e.g. Schwyzer *DGEEP*), did print λεύσοντες in 5.2.16 (= *DGEEP* 658) while giving λευτον in 5.2.3 (= *DGEEP* 654). The one piece of non-inscriptional evidence, however, that would directly support λευσ(σ)ο/ε- in Arcadian — i.e. the *Anecd. Gr.* gloss λεύσει· ὄρα, attributed to Kleitor — is not necessarily decisive (Morpurgo Davies [1987], 460-1, 463), though it may be wondered whether the ancient philologist who collected an exotic Kleitorese \*λεύσει ‘sees’ would really bother transforming it into a λεύσει that would also seem rather foreign, from his point of view, before glossing it with the genuinely familiar ὄρα.

5. The situation so far, then, is this:

<sup>8</sup> The pres. ἄρυσσο/ε- ‘draw water’ is evidently a rearrangement of ἄρυσσο/ε- and ἀρυτ(ε)ο/ε- (see below). It may take its cue from ἄφυσσο/ε- (Hom.+), which also means ‘draw water’. But it still exemplifies the pattern being singled out for notice here and it goes without saying that pairings arising analogically can serve as the models for yet further analogical innovations.

<sup>9</sup> So too in somewhat more detail Dubois (1986), 2.85.

5.1 Arcadian certainly has a graphic  $\lambda\epsilon\upsilon\tau\omicron\nu$ , for which  $leut\bar{o}n$  is a much less costly assumption than  $leut^S\bar{o}n$ , and may or may not have a  $\lambda\epsilon\upsilon\tau\omicron\nu\tau\epsilon\varsigma$  that would represent  $leutontes$  — in preference, again, to  $leut^Sontes$ . Consequently, whatever the ultimate verdict on  $\lambda\epsilon\upsilon\tau\omicron\nu\tau\epsilon\varsigma$  may be, Arcadian has a  $\lambda\epsilon\upsilon\tau\omicron/\epsilon-$  ‘see’.

5.2 There also seems to be less than an even chance, however, that this Arc.  $\lambda\epsilon\upsilon\tau\omicron/\epsilon-$  really justifies either an inherited pres.  $*le\upsilon\tau\omicron/e-$  for Arcadian alone or an inherited aor.  $*le\upsilon\tau\omicron/e-$  in Arcadian beside an inherited pres.  $*le\upsilon\tau-\dot{\iota}o/e-$  that yielded  $\lambda\epsilon\upsilon\sigma(\sigma)\omega$  in Homer etc. (plus/minus  $\lambda\epsilon\upsilon\sigma\omicron\nu\tau\epsilon\varsigma$  in Arcadian itself). A  $*le\upsilon\tau$  entirely confined to Greek is still a highly uneconomical assumption (§3.2) and entails the difficulties mentioned above (§3.3a-c).— whether this form is invoked: (1) only in a pres.  $*le\upsilon\tau\omicron/e-$  beside pres.  $*le\upsilon\kappa-\dot{\iota}o/e-$  (despite §3.1) or (2) both in a pres.  $*le\upsilon\tau-\dot{\iota}o/e-$  (>  $\lambda\epsilon\upsilon\sigma(\sigma)\omega$ ) and also in something else of the shape  $*le\upsilon\tau\omicron/e-$  (§3.3a-b) or (3) in an absolutely original root pres. (or aor.?)  $*le\upsilon\tau-/l\upsilon\tau-$  that produces an eventual  $*l(e)ut-/l(e)us-$  (§3.3c).

5.3 Nonetheless, it is just possible that in addition to the graphic  $\lambda\epsilon\upsilon\tau\omicron/\epsilon-$  that simply spells a  $leuto/e-$  ‘see’, Arcadian also has a graphic  $\lambda\epsilon\upsilon\sigma(\sigma)\omicron/\epsilon-$  ‘see’ (§4) that would represent the  $leuso/e-$  attested elsewhere (Hom., Pi., trag.+) as  $\lambda\epsilon\upsilon\sigma(\sigma)\omicron/\epsilon-$ .

6. As a next step, it can be concluded that if Arcadian had both a  $\lambda\epsilon\upsilon\tau\omega$  and a  $\lambda\epsilon\upsilon\sigma(\sigma)\omega$  (=  $\lambda\epsilon\upsilon\sigma(\sigma)\omega$  in Homer etc.) meaning ‘see’, it is clearly  $\lambda\epsilon\upsilon\tau\omega$  that constitutes the innovation.<sup>10</sup> This, in turn, points the investigation at the question of whether  $\lambda\epsilon\upsilon\tau\omega$  can in fact be explained as a by-form of  $\lambda\epsilon\upsilon\sigma(\sigma)\omega$  that was analogically created in Arcadian. We may note already now, however, that if an account of  $\lambda\epsilon\upsilon\tau\omega$  as an innovated form of  $\lambda\epsilon\upsilon\sigma(\sigma)\omega$  can be had at all, it no longer matters whether or not Arcadian actually attests what would in this scheme of things be the older  $\lambda\epsilon\upsilon\sigma(\sigma)\omega$ . For if the original present did not survive there, it would merely mean that the new  $\lambda\epsilon\upsilon\tau\omega$  completely replaced the Arcadian correspondent of the  $\lambda\epsilon\upsilon\sigma(\sigma)\omega$  seen in epic and elsewhere.

7. In fact, it seems feasible to explain a pres.  $\lambda\epsilon\upsilon\tau\omega$  ‘look, see’ as an instance of a very marginal but nonetheless noticeable tendency in Greek to back-form presents in  $-\tau\omega$  (though more usually presents in  $-\acute{\tau}\acute{\epsilon}\omega$ ) to the “sigmatic” components of a given *averbo*. As Schwyzler (1939), 704 registers the phenomenon, “Att.  $\acute{\alpha}\nu\tau\omega$  ... und  $\acute{\alpha}\rho\acute{\upsilon}\tau\omega$  ... Lesb.  $\acute{\alpha}\rho\upsilon\tau\acute{\eta}\mu\epsilon\nu\omicron\iota$  ...” — on which see below (§§8-10) — “sind (wohl nach  $\acute{\eta}\nu\upsilon\sigma\alpha$   $\acute{\alpha}\nu\upsilon\sigma\tau\acute{o}\varsigma$ ,  $\acute{\alpha}\rho\upsilon\sigma\tau\acute{\eta}\rho$   $\acute{\alpha}\rho\upsilon\sigma\tau\iota\varsigma$ ) aufgekommnen.”

7.1 The relevant components for this purpose include classes of forms like:

- (a) verbal adjective in  $-\sigma\acute{\tau}\acute{o}-$  or  $-\sigma\acute{\tau}\acute{\epsilon}\acute{o}-$
- (b) agent derivative in  $-\sigma\tau\acute{\eta}\rho$ ,  $-\sigma\tau\acute{\alpha}\varsigma/-\sigma\tau\eta\varsigma$  *vel sim.*
- (c) aorist “passive” in  $-\sigma\theta\eta-$
- (d) perfect middle-passive in  $-\sigma\tau\alpha\iota$  (whence  $-\sigma\mu\alpha\iota$  etc. and  $-\sigma\mu\acute{\epsilon}\nu\omicron-$  participle)
- (e) aorist active-middle in  $-\sigma(\sigma)\alpha-$  and/or fut. in  $-\sigma(\sigma)\omicron/\epsilon-$

<sup>10</sup> Dubois (1986), 2.85 hypothesizes a correction by the engraver either of  $\Lambda\epsilon\Upsilon\Upsilon$  to  $\Lambda\epsilon\Upsilon\varsigma$  or *vice versa*, pointing out that it is not possible to tell by inspection which it was. The suggestion in the end is that a more recent  $\Lambda\epsilon\Upsilon\varsigma$  has been substituted for an archaic  $\Lambda\epsilon\Upsilon\Upsilon$ . That scenario, however, is only cogent if the T of  $\Lambda\epsilon\Upsilon\Upsilon$  really is a conservative spelling that constitutes a modified version of a genuinely old graphic representation of  $t^S$  — as it does not really seem to be (see §2 above).

(f) other rarer synchronically sigmatic items

7.2 As is well known, the  $-\sigma-$  segments appearing in (a) - (d) above are of two different types altogether, historically speaking.

7.2.1 In some cases the  $-\sigma-$  ultimately reflects a consonant in the actual pre-form of a particular “sigmatic component” or at least in the pre-form(s) of one or more of the specific instances on which the pattern was originally founded.

7.2.1.1 The consonant in question was in some instances simply an  $-s-$ :

ἄκουστος (Hom.+), ἀκουστέον (E+), ἀκουστής (Men.+), ἠκούσθην (Thuc.+), ἠκουσμένος, (D.H.+), ἠκουσε (Hom.+), ἀκούσομαι (Hom.+): ἀκούω ‘hear’, to the pre-Gk. root \**akou̯s-* from ultimate PIE \**h<sub>2</sub>kou̯s-* (cf. Gmc. \**haus-ja-* ‘hear’ > Goth. *hausjan* etc.).

ἀτέλεστος, τελεστής, τελεστήρ, τελέστωρ, ἐτέλεσθη, τετέλεσται, τετελεσμένος; ἐτέλεσ(σ)ε : τελεῖω/τελέω ‘accomplish’, denominative to  $s$ -stem τέλος and reflecting \**teles-jo/e-*.

7.2.1.2 In other examples the consonant was a dental stop ( $D = -t-, -t^h-, -d-$ ) and the characteristic Greek developments  $-Dt- > -st-$  and  $-Ds- > -s(s)-$  are observable:

βλιστηρίς (AP) ‘honey-taking’/ ἔβλισε (Att.): βλίττω ‘take honey’ < \**mlit-jo/e-*.

πλαστός, πλάστης, ἐπλάσθη, πέπλασται/ ἔπλασ(σ)ε : πλάσσω/πλάττω ‘form’ < \**plath-jo/e-*.<sup>11</sup>

ἄψευστος, ψεύστης, ἐψεύσθη, ἔψευσται/ ἐψεύσατο, ψεύσομαι : ψεύδομαι ‘lie, say falsely’ < \**pseud-o/e-*.

7.2.2 There are also, however, the familiar occurrences of a kind of “inorganic”  $-s-$ , analogical in origin, that appears with some frequency in forms of the morphological classes in question:<sup>12</sup>

Hom. ἄγνωστος (beside ἄγνωτος) to ἔγνω etc., ἀδάμαστος (Ion. ἀδάματος) to δάμνημι etc., πυρίκαυστος to καίω (< \**kaμ-jo/e-*) etc.

post-Hom. ἐπαύσθη (Hdt.), ἄπανστος (A.+), παύω (\**ραμ-*: cf. Hom.+ πέπαιται, Hes. ἐπαύθη earlier than Hdt. ἐπαύσθη) etc.

post-Hom. κεκέλευσται (Xen.+), ἐκελεύσθη (Hdt.+), ἀκέλευστος (A.+), κελευστής ‘boatswain’ (Thuc.+), κελεύω etc.

7.2.2.1 Part of the time, the sequences  $-\sigma\theta-$  and  $-\sigma\tau-$  (whence  $-\sigma\mu-$ ) may be regarded as showing a banal generalization of the  $-\sigma-$  of the aorist:

καῦσα- : καυστό- etc.; κέλευσα- : κελουστό-, κελεύσθη- etc. on the model of ἄκουσα- : ἀκουστό-, ἀκούσθη- etc.

7.2.2.2 Sometimes, however, the source of the analogical  $-\sigma-$  lies further afield:

γνωστός (Hom.+), ἐγνώσθη (A.+), ἔγνωσται (E, Th.+): γιγνώσκω, ἔγνων etc.

7.3 As a descriptive matter, in any event, there are a number of verb sets in which a present in  $-\tauέω$  occurs beside a wide variety of sigmatic components of the kinds catalogued just above (§§7.1, 7.2). In some cases (§7.3.1) such a present can be classified as an actual member of the *averbo* in question, while elsewhere (§7.3.2) it is

<sup>11</sup> For the root-final  $-t^h-$  cf. cpds. in  $-\pi\lambda\alpha\theta\omicron-$  (e.g. κοροπλάθοσ ‘statuette-maker’ [Pl.+]) and derivatives like Lac. πλαθαῖ ‘image, model’ and see *GEW*, *DELG*<sup>2</sup>, *EDG* s.v. πλάσσω.

<sup>12</sup> See, e.g. Schwyzler (1939), 503.

merely possible to associate the present with the sigmatic pieces of what is descriptively another verb.

7.3.1 -τεο/ε- and -σ(σ)α- etc. in what is synchronically the same *averbo*:

<p>7.3.1.1 <u>aor.</u> ἐπασ(σ)άμην (Hom.+) ‘eat’, <u>fut.</u> πάσομαι (A.+), <u>perf.</u> πέπασμαι (Hom.+), <u>vbl. adj.</u> ἄπαστος (Hom.+), ἀπαστα (Ar.), τὰ παστήρια (E+) ‘sacrificial feast’</p>		<p><u>pres.</u> πατέομαι (Hdt.+) ‘eat’</p>
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7.3.1.1.1 The *\*pat-* directly observable in pres. πατέομαι and consistent with the associated “sigmatic” components has standardly-cited comparanda in Germanic,<sup>13</sup> where the most relevant forms are items like OE *fōda* (m. -an-) and OIc. *fœða* (f. -ðn-) ‘food’, the Class I weak verb reflected by Go. *fōđjan*, OE *fēdan*, OHG *fuottan* ‘feed’, and OHG *fatunga* (f.) ‘food’ together with *kavatot* ‘fed (*pastus*)’. This can probably all be traced back to a Gmc. *\*fōđa-* beside *\*fađa-*, reflecting in turn something like *\*ph<sub>2</sub>-tō-* vs. *\*ph<sub>2</sub>-tō-* (with the root of L. *pāscō*, *pāvi* ‘feed’). The (presumably adnominal) *\*ph<sub>2</sub>-tō-* reconstructed here can obviously be aligned with Greek πατέομαι by way of an ultimately denominative *\*pate-ǰó/é-* that predictably became *\*páteǰio/e-* in pre-Greek.

7.3.1.1.2 One theoretically possible next step would be a reanalysis of *\*páteǰio/e-* as *\*pát-eǰio/e-*, which would have triggered the pattern seen, in the end, in ἐπασ(σ)άμην, ἄπαστος etc. beside πατέομαι. A drawback to this scenario, however, is that an exact model for generating an old -σ(σ)α aorist, -σμαι (i.e. -σται) midd.-pass. perfect, and -στό- verbal adjective specifically beside a -τεο/ε- present is not easy to identify.

7.3.1.1.3 It might therefore be appealing to suppose that the *averbo* collected under the lemma πατέομαι is a merger of two things:<sup>14</sup>

(a) A present πατέομαι reflecting denominative *\*pate-ǰó/é-*, itself ultimately made from an inherited *\*ph<sub>2</sub>-tō-* (cf. OHG *kavatot*) as just described.

(b) An inherited verbal adjective *\*ph<sub>2</sub>s-tō-* (cf. Lat. *pāstus* as if < *\*ph<sub>2</sub>s-to-*), giving a Proto-Gk. *\*pastō-* (again cf. ἄπαστος etc.), to which aor. πάσ(σ)α-, perf. midd.-pass. πέπασ(σ)-ται, and finally fut. πάσο/ε- were formed on the pattern displayed by s-final roots.

<p>7.3.1.2 <u>aor.</u> ἔδασ(σ)α (Hom.+) ‘distribute’, <u>fut.</u> δάσ(σ)ομαι (Hom.+), <u>perf.</u> δέδασμαι (cf. also δασμός [Hom.+], <u>nom.</u> δάσματα [Hsch.], ἄδαστος (S), δαστήρ (Aetol.)</p>		<p><u>pres.</u> δατέομαι (Hom.+) ‘distribute’.<sup>15</sup></p>
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7.3.1.2.1 It would in theory be easy to start once again with a *\*dh<sub>2</sub>-tō-* to the *\*dah<sub>2</sub>* of Ved. *dáyate* ‘divides’ and Gk. δαίομαι ‘distribute’<sup>16</sup> and then assume (1) a denominative

<sup>13</sup> See Schaffner (2001), 194-7.

<sup>14</sup> A conversation with Jay Jasanoff first got me thinking along the lines that led to this proposal.

<sup>15</sup> A δάσσω in this meaning is found in Callimachus (Frag. anonym. 145). It would seem to have been back-formed from aor. ἔδασ(σ)α, vbl. adj. δαστός etc. on the model of πάσσω : παστός etc. (as in §3.4.2.1 above).

<sup>16</sup> See Jasanoff (2003), 105.

\**date-íō/é-* > Proto-Gk. \**dáteio/e-* reanalyzed as \**dát-eio/e-* and thus (2) the creation of *ἔδασ(σ)α* and the other forms of the *averbo* that conform to the general Greek dental-final pattern. But direct evidence of the putative starting point \**dh<sub>2</sub>-tō-* is not easy to find.

7.3.1.2.2 Since, moreover, both *δατέομαι* and *δαίομαι* are characteristically used of dividing and distributing food, there is an obvious pragmatic association between *δατέομαι* and *πατέομαι* ‘eat’, which invites the surmise that *πατέομαι*, which is the member of this pair that can be given a plausible derivational basis, was somehow the model for *δατέομαι*. Even so, the original point of contact between the two verbs is not clear.

7.3.1.3 <u>aor.</u> inf. <i>κένσαι</i> (Hom.+) ‘goad, sting, stab’, cf. <i>κεστός</i> ‘stitched’ (Hom.+), <i>κέστρα</i> (S) ‘hammer’		pres. <i>κευτέω</i> (Pi.+)
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The pairing of aor. *κένσα-* with pres. *κευτεο/ε-* in what is unquestionably a single *averbo* places this verb securely in the same group as *πάσ(σ)α* : *πάτεο/ε-* and *δάσ(σ)α* : *δάτεο/ε-*, even though *κένσα-* has an analogical shape.<sup>17</sup>

7.3.2 *-τεο/ε-* beside *-σ(σ)α-* etc. in two synchronically distinct verbs:

7.3.2.1 <u>aor.</u> <i>ἔδυνασθην</i> (Hom.+) ‘be able’ (: <i>δύναμαι</i> ), <u>nom.</u> <i>δυναστής</i> (A.+), <i>δυναστεύω</i> (Hdt.+), <i>δυναστεία</i> (S, Thuc.+)		pres. <i>ἀδυνατέω</i> (Epicharm.+) ‘be unable’ (← <i>ἀδύνατος</i> ‘unable’)
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7.3.2.2 <u>aor.</u> <i>ἤνσα</i> (Hom.+) ‘shout’ (: <i>αὔω</i> [Hom.+])		pres. <i>ἀντέω</i> (Hom.+) ‘shout’ (← <i>ἀντή</i> [Hom.+] ‘a shout’)
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7.3.2.3 In both of the cases just listed, sigmatic components of the *averbo* of a primary verb end up potentially pairable with a completely separate *-τεο/ε-* present that has more or less the same meaning, but was derived from a nominal derivative of the primary verb.

7.3.2.4 <u>aor.</u> <i>ἐδίξισάμην</i> (Hom.), <u>fut.</u> <i>δίξισομαι</i> (Parm.) ‘seek for, out’ (: <i>δίξισμαι</i> [Hom.+])		pres. <i>ζητέω</i> (Hom.+) ‘seek for, seek out’ (← * <i>ζητός</i> [cf. Arc. <i>ζᾶτός</i> ( <i>IG</i> 5.2.4)])
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The potential synchronic *-σ-* : *-τεο/ε-* pairing here is a bit more remote still, since an association of the type *-ζήσα-* : *ζήτεο/ε-* would require extraction of the *-ζήσα-* from *δίξισα-*, analyzed as *δί-ζήσα-* for the purpose.

7.4 The next kind of development to point out here, at any rate, is that in some cases it is more or less clear that on the model both (1) of those *-τεο/ε-* presents that had

<sup>17</sup> The root was \**kent* to judge by *κουτός* ‘pole’ (Hom.+) and Latv. *sīts* (< \**k̑ntō-*) ‘spear’. The Greek aorist stem *κενσα-* is therefore not old as such, since \**kents-* would give Proto-Gk. \**kens<sub>2</sub>-*, whence would regularly come either preserved \**kens-* or \**kēs-* (“second compensatory lengthening”) or \**keis-* in the various dialects. This implies that the Hom. *†κείσα-* that would be phonologically regular, strictly speaking, was reshaped as *κενσα-* on the model of pres. *κευτέω*, which should therefore be a fairly old present even if apparently not attested before Pindar. *κεστός* would be phonologically regular from a \**kent-tō-* (> \**kenstō-* > *kestō-*), but a full grade is out of order here and the form presumably reflects an ultimate \**k̑ns-tō-* > \**kastō-* remodeled to *kestō-* in assimilation to the present +/- aorist.



sigmatic elements in their own *averbo* (§7.3.1) and (2) of those that were only synchronically associable with the sigmatic components of a distinct but related verb (§7.3.2), a present in *-τεο/ε-* was evidently back-formed to a set of sigmatic components of a few verbs.

7.4.1 aor. ἐπιμασσάμην (Hom.), μάσσαι· ζητήσαι (Hsch.), fut. μάσσομαι (Hom.) ‘seek (after)’ (: *μαίομαι* ‘seek after’); nominal/denominative ἀπροτίματος (Hom.) ‘unsought, untouched’, *μαστήρ* (S+) and *μάστειρα* (A.) ‘seeker’, *μαστήριος* (A.), *μαστός* (Callim.) ‘quest’, pres. *μαστεύω* (Hes.+) ‘seek’, *μαστευτής* (Xen.), *μάσμα* ‘search’ (Cratin.)

pres. *ματεῖ· ζητέι* (Hsch.), *μάτημι* (Theoc.)

In this rather unambiguous instance of the analogical type now in view, the sigmatic pieces of the *averbo* of *μαίομαι* (constructed around a basic *mas-* in the first place: \**mas-jo/e-* > *μαίομαι* etc.), along with those nominal derivatives that reliably produce relevant sigmatic items more generally (*-μαστος* etc.), have evidently served as the bases for the back-formation of a new present of the shape *μάτεο/ε-* and, with “Aeolic” inflection, *μάτη-*.

7.4.2 aor. ἔφθασα (A., Hecat.+), fut. φθάσω (Hr., Xen.+) ‘be first, anticipate’ (: *φθάνω*)

pres. *καταφθατουμένη* (A.); cf. *φθατήση· φθάση* (Hsch.)

The aorist *φθάσα-* is, to be sure, an innovation beside the *φθα-/φθα-* aorist seen in (Hom.+) *ἔφθην* etc. (3 pl. *φθάν*) and ptcpl. *φθᾶς* (\**ph<sup>h</sup>tant-*). But the *-σα-* aorist, comparatively recent though it may be, is early enough to have served as the model for the rare present *φθάτεο/ε-* first attested in Aeschylus (with an aorist *φθάτησα-* of the expectable shape reported by Hsch.). This present could theoretically be denominative to a \**φθατό-*, of course. But a *-τό-* adjective to *φθάνω* is not actually found, which is a problem for the denominative scenario — especially if it is supposed to have been around to serve as the basis for an analogical present of such relatively recent date.

7.4.3 aor. ἔπεξα, ἐπεξάμην (Hom.+) ‘shear’ (: *πέκω* [Hom. metr. length. *πέικετε*, whence Hes. *πέικειω*])

pres. *πεκτέω* (Ar.)

7.4.4 aor. ἔρριψα (Hom.+) ‘throw’ (: *ρίπτω* [Hom.+]), nom. *ρίψις* (Pl.+) ‘a throw(ing)’

pres. *ρίπτέω* (Ar., Hdt.+<sup>18</sup>)

7.4.5 In the two cases just mentioned, it seems a straightforward matter to suppose that the *-σα-* aorists *πέξα-* and *ρίψα-* served as the starting points for the back-formation of presents in *-τεο/ε-*, both of which are comparatively recent. An additional point in the

<sup>18</sup> The *ἀνερρίπτουν* of ν 78, a line that ends ἴ'ἀνερίπτουν ἄλα πηδῶ, is not legitimate evidence of an already-Hom. pres. *ρίπτο/ε-*, but instead amounts to the exploitation of the relevant Attic form to repair what was — or was taken to be — simply a *brevis in longo* engendered by the adaptation of ἴ'ἀναρρίπτειν ἄλα πηδῶ in η 328.

second of these two instances is that the *-τεο/ε-* present is at the same time, descriptively speaking, an “expansion” of a pre-existing simpler *-το/ε-* present.

8. An especially interesting case of a *-τεο/ε-* present back-formed to the sigmatic elements of an *averbo* that originally featured a different present is that of ἀρύω ‘draw (esp. water, wine etc.)’.

8.1 The original present is first found in Hesiod (ἤρουν [*Asp.* 301]) and Simonides (ἀρύεται [Frag. 72(a).1.1 (Page)], cf. ἀρύόμενοι Hdt. 2.108.17) and continues to be attested thereafter — e.g. in Plato (ἀρύονται [*Ion* 534 A4]).

8.2 Beside this present is an aorist ἄρυσ(σ)α- (Hes. ἀρυσάμενος [*Erga* 550], Hdt. ἀπαρύσαντες [4.2.10], Pherecr. ἤρυσαν [Frag. 138.1 (Kock)] etc.). Other sigmatic components of the general *averbo* of ἀρύω are an aorist pass. ἀρυσθη- (Hp.) and the nominal derivatives ἀρυστήρ ‘ladle, cup’ (Alc., Semon., Hp.), ἄρυστις ‘id.’ (Soph.), ἀρυστρίς (AP) ‘id.’, and ἀρυστιχος (Phryn. com., Ar.+) ‘little cup’.

8.3 The present back-formed to the usual kinds of sigmatic elements this time is not a *-τεο/ε-* present as such, but we do find the athematic *-τη-* equivalent that would be expected in Lesbian, where the middle participle ἀρυτήμενοι is in fact found twice in Alcaeus (305.1.11, 396.2 [Page and Lobel]).<sup>19</sup>

8.4 In tabular form, the case looks like this:

<p><u>pres.</u> ἤρουν (Hes.), ἀρύεται (Simon.) etc.</p> <p><u>aor.</u> ἤρυσαν (Pherecr.), ἀρυσάμενος (Hes.) etc.</p> <p><u>aor. pass.</u> ἀρυσθη (Hp.)</p> <p><u>nominal</u> ἀρυστήρ (Alc.+), ἄρυστις (Soph.) etc.</p>	<p><u>pres.</u> Lesb. ἀρύτημι (Alc.) ≈ ἀρύτεο/ε-</p>
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9. In the case of ἄρυσ(σ)α-, however, the virtual ἀρύτεο/ε- represented by Lesb. ἀρύτη- is not the only *-τ-* present that was back-formed to the sigmatic components of the *averbo*. A more frequently attested analogue is the simpler Attic ἄρυτο/ε-,<sup>20</sup> found in Cratinus (ἀναρύτουσα [36.1 Kock]), Pherecrates (ἀρύτεσθαι [130.5 Kock]), Aristophanes (ἀρύτεσθε [*Nub.* 272]), and Plato (ἀρύτωσιw [*Phdr.* 268 E1] etc.).

10. Attic ἄρυτο/ε- ‘draw water (etc.)’ beside Lesbian ἀρύτη- ‘id.’ would seem to show, then, that in addition to the rather marginal process of back-forming *-τεο/ε-* presents to the sigmatic parts of a given *averbo*, there was an even more marginal process of back-forming simpler *-το/ε-* presents on the same basis. If so, however, a clear candidate for an account in which a back-formation of this same kind appears only as *-το/ε-* with no *-τεο/ε-* by-form is ἀνύτω/Att. ἀνύτω ‘accomplish, finish, reach, obtain’

<sup>19</sup> Yet another innovated present here is the Ionic ἀρύσομαι ‘draw water’ already mentioned above (§3.4.2.1 with n. 4) in another connection.

<sup>20</sup> DELG remarks on ἀρύω (s.v.; cf. also s.v. ἀνύμι) that “l’att. a un présent à suff. -τω, marquant l’aboutissement...” A functional or semantic distinction (whichever such an aspectual contrast should be called) would be difficult to find in the texts. It is almost as if this observation was written on the basis of an already-formed conviction that *-το/ε-* is likely to mark this kind of aspect in any given case.

beside *ἀνώω/ ἀνώω* ‘id.’,<sup>21</sup> with the following dossier of forms (representatively illustrated):

pres., e.g., *ἀνώω* (D 56), *ἀνύεται* (Pi. *Pyth.* 2.49), *ἀνώοις* (A. Frag. 279h [Mette]), *ἄνωε* (Ar. *Plut.* 413) etc., *ἤνωε* (Hes. Frag. 37.6 [Merkelbach & West], Hdt. 9.66.4, Dem. *In Mid.* 104.8).

aor., e.g., *ἤνωσα* (Theogn. 1.954), *ἤνωσεν* (δ 357), *ἤνωσαν* (E *Suppl.* 1141), *ἤνώσασθ’* (A. *Prom.* 700) etc., *ἀνώσσης* (Hes. *Erga* 395), *ἀνώσειεν* (Tyr. Frag. 11.15 [West]), *ἀνώσσας* (ptcpl. Hes. *Th.* 954) etc.

aor. pass. *ἐπ-ἤνώσθη*<sup>22</sup> (Hes. *Asp.* 311)

perf. *ἤνωσται*, *δι-ἤνωσμένος* (Polyb.+), *δι-ἤνώσθαι*<sup>23</sup> (Xen. *Cyr.* 1.4.28)

nom. *ἀνήνωστος*<sup>24</sup> (Hom.+), ‘fruitless’, *ἄνωστος* (E., Hp., Xen.+), ‘practicable’, *ἀνωστικός* (Arist.+), ‘effective’

pres. *ἀνύτω/ἀνύτω* (A., Thuc., Eur., Soph., Ar.-)

<sup>21</sup> This present is itself a thematicized remodeling of an older *ἄνω-* preserved in a few forms: *ἤνωτο* (ε 243), *ἄνωμες* (Theoc. 7.10) etc. This relict *ἄνω-* is the Greek correspondent, in one way or another, of the nasal infix present to *\*senh<sub>2</sub>-* ‘gain, win’ reflected also by Ved. *sanóti*. LIV<sup>2</sup>, 532f. seems to judge them to be independent remodelings of the expected outcomes of what should have been PIE *\*sn-n(e)-h<sub>2</sub>-* and should thus have resulted in Ved. †*sanāti* and Gk. †*ἄνωμι/†ἄνωμι*.

<sup>22</sup> The indicative forms of an aor. pass. stem †*ἀνώθη-* would almost all take the form †*ἤνώθη-* ( - - ), which would make them unusable in the hexameter. It is natural to ask, therefore, whether Hesiod’s *ἐπἤνώσθη* might not show *-σθ-* merely as a device for metrically lengthening the short of the cretic. This would be grounds for excluding the form from the present discussion, however, only if there were reason to suggest at the same time that it is a purely epic creation that had to be used in place of the “real” aorist passive of this verb. In fact, though, as already hinted, there is no †*ἀνώθη-* and thus no conclusive argument to be made for the “artificiality” of *ἀνώσθη-*. If, furthermore, one believes that morphological rearrangements in epic language are in the end nothing but analogical innovations carried out for special purposes, this case would merely underline the well-foundedness of the pattern pres. *-ύω* : aor. pass. *-ύσθη* anyway.

<sup>23</sup> This infinitive (in *-σθαι*) obviously does not itself establish a perf. midd.-pass. stem *ἤνωσ-* in the least. But since there seems to be no evidence at all that the verb ever had *ἄνω-/ἤνω-* instead, while forms of the type *ἤνωσται* do at least eventually confirm the *ἤνωσ-*, there seems no harm in including the infinitive here.

<sup>24</sup> Any form of Attic *ἀνήνωστος* (Eur., Soph., Critias, Pl.) that had a heavy final syllable ( - - - ) would be impossible to versify in hexameters without modification. Homeric *ἀνήνωστος* (†*ἀνήνωστω* [π 111]) causes no such problem, of course, and there consequently arises the question once more (cf. note 22) of whether this Homeric version of this verbal adjective was metrically lengthened by morphological means. Even if it was, one of the points already

Once again, to be brief, it would appear that the elements in -στό-, -σθ-, -στ-/ -σμ-, and -σ(σ)- of a given *averbo* served as the bases for the apparent back-formation of a present in -το/ε-.

11. With the identification of Att. ἀρύτω ‘draw water (etc.)’ and ἀνύτω ‘accomplish, finish, reach, obtain’ as instances of an uncommon but detectable pattern in which innovated presents in -το/ε- are apparently created beside what we have been calling, collectively, the sigmatic components of a given *averbo* — i.e. (§7.1) vbl. adjs. -στό- and -στέο-, aor. passive -σθη-, perf. midd.-pass. -σται (and -σμαι, -σμένο- etc.), aor. act.-midd. -σ(σ)α- and/or fut. -σ(σ)ο/ε- etc. — we arrive at the point of the exercise.

11.1 Theocritus’ νήλευστος ‘unseen’ (§3.4), which can hardly be anything but a hyper-epic version of an ἄλευστος to λεύσ(σ)ω, incontestably does a great deal to confirm the reality of the Hesychius glosses λευστά· ὀρατά and ἄλευστος· ἀόρατα. The λευστός in question, it was suggested when these forms were discussed earlier, itself originated as an analogical derivative of present λεύσ(σ)ω, but its non-inherited status is irrelevant to the proposal now about to be made.

11.2 It is, of course, impossible to say definitely whether Arcadian had the λευστός known from Theocritus and the dialectally unassignable Hesychius forms that go with it. But it can at least be said that the phenomena we have just been looking at (§§7-10) will provide an economical solution to the question of the origin of enigmatic λεύτων plus/minus λεύτοντες if it is assumed that an analogical creation that would have been so simply and strongly motivated as this λευστός was in fact there.

11.3 Beyond that, it remains only to make the actual suggestion that is obviously now ready to hand — namely, a scenario in which it is supposed (1) that Arcadian was a dialect that had the analogical λευστός ‘seen’ known from elsewhere; (2) that this λευστός, once established in Arcadian, served as the basis for the creation of the same kind of innovatory -τω present as was just seen in Attic ἀρύτω ‘draw (water etc.)’ and ἀνύτω ‘reach, obtain etc.’; and consequently (3) that just as -υστό- (and/or -υστέον, -ύσθη etc.) led to -ύτω, an -ευστό- would have been the point of departure for an -εύτω. This scenario, finally, may be represented more schematically as:

ἀρυστήρ, ἄρυστις : Attic ἀρύτω =

ἀνήνυστος, ἄνυστος : Attic ἀνύτω =

λευστός, ἄλευστος : Arcad. X, which would produce a λεύτω.

## Appendix: λεύσσω, λεύσω and Proto-Greek \*-kǵ-

12. A loose end left by the discussion in §§1-11 above is the question of the spellings λεύσσω beside λεύσω, which seem to be in completely free variation in the mss. of the

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made in connection with Hes. ἐπηνύσθη (in note 22) can be made again here — namely that a metrically motivated analogical form is itself evidence that the pattern thereby propagated (in this case pres. -ύω : vbl. adj. -υστό-) was anything but contrary to the system. In addition, however, it may be said that even if ἄνυστος is decompositional from Homeric ἀνήνυστος (with cancellation of the compositional lengthening in -ηνυ-), an epic-inspired form is one thing in Euripides but quite another in the *Hippocratic Corpus* and Xenophon. A similar consideration would be relevant to ἀνυστικός in Aristotle and other prose.

poets who attest this verb. Even though this vacillation does nothing in the end to raise doubts about the standard etymology, it is better in principle to have an explanation than to lack one.

12.1 The frequency of both  $-\sigma\sigma-$  and  $-\sigma-$  in the mss. would seem to imply that something more linguistically real than random and unmotivated haplographies or dittographies is going on. If so, it might seem reasonable to think that  $\lambda\epsilon\acute{\upsilon}\sigma\omega$  is the *lectio difficilior*, since the  $-\sigma\omega$  of  $\lambda\epsilon\acute{\upsilon}\sigma\omega$  could represent an assimilation to the rather large class of  $-\sigma\omega$  presents of the type(s):

$\acute{\alpha}\rho\mu\acute{o}\sigma\omega$  ‘join’ (Hp.),  $\acute{\alpha}\phi\acute{\alpha}\sigma\omega$  ‘touch’ (Hdt.+),  $\acute{\epsilon}\lambda\acute{\iota}\sigma\omega$  ‘turn’ (Hom.+),  $\acute{\epsilon}\nu\acute{\iota}\sigma\omega$  ‘attack’ (Hom.),  $\acute{\epsilon}\rho\acute{\epsilon}\sigma\omega$  ‘row’ (Hom.+),  $\kappa\eta\rho\acute{\upsilon}\sigma\omega$  ‘announce’ (Hom.+),  $\kappa\omicron\rho\acute{\upsilon}\sigma\omega$  ‘arm’ (Hom.+),  $\mu\acute{\alpha}\sigma\omega$  ‘knead’ (Archil.),  $\delta\rho\acute{\upsilon}\sigma\omega$  ‘dig’ (Hom.+),  $\pi\acute{\epsilon}\sigma\omega$  ‘cook’ (Hom.+),  $\chi\alpha\rho\acute{\alpha}\sigma\omega$  ‘sharpen’ (Hes.+) etc. etc.

12.2 On the other hand, it is not unknown that  $-\sigma-$  and  $-\sigma\sigma-$  compete in words that synchronically speaking are more or less unanalyzable. This, moreover, would make it difficult to argue in such cases that one of the contrasting forms is following the lead of some conspicuous morphological type. A pair that looks as if it belongs in this category is:  $\acute{\rho}\upsilon\sigma\acute{o}\varsigma$  vs.  $\acute{\rho}\upsilon\sigma\sigma\acute{o}\varsigma$  ‘shriveled, wrinkled’ (indiscriminately in mss. of Homer)

13. One approach to a  $-\sigma(\sigma)-$  <  $*-k\acute{\iota}-$  like that of  $\lambda\epsilon\acute{\upsilon}\sigma(\sigma)\omega$  <  $*\lambda\epsilon\mu\kappa\acute{\iota}\omega/e-$  would be to exploit the finding<sup>25</sup> that tautosyllabic Proto-Greek  $-k^{(h)}\acute{\iota}-$  developed to single  $-s_2-$  in all dialects, exactly as did tautosyllabic  $-t^{(h)}\acute{\iota}-$  in, e.g.,  $*\text{pan.t}\acute{\iota}\acute{\alpha}\check{\bar{a}}- > *pans_2\acute{\bar{a}}-$  (whence Arcad. etc.  $\pi\acute{\alpha}\nu\sigma\alpha/$  Att.-Ion. etc.  $\pi\acute{\alpha}\sigma\alpha/$  Lesb., Cyren.  $\pi\acute{\alpha}\iota\sigma\alpha$ ) *et sim.*

The idea would be, in other words, that tautosyllabic  $-k^{(h)}\acute{\iota}-$  became  $-s_2-$  not only in dialects where heterosyllabic  $*-k.\acute{\iota}-$  (<  $*k.\acute{\iota}$ ,  $*k^h.\acute{\iota}$ ,  $*k^w.\acute{\iota}$ ) ultimately yielded  $-\sigma\sigma-$  (i.e. in cases like Ion. etc.  $*tak.\acute{\iota}\omega/e- > \tau\acute{\alpha}\sigma\omega$  ‘arrange’,  $*pek^w.\acute{\iota}\omega/e- > \pi\acute{\epsilon}\sigma\omega$  ‘cook’,  $*mak.\acute{\iota}\omega >> \mu\acute{\alpha}\sigma\sigma\omega$  ‘further’ [θ 203]), but even where heterosyllabic  $-k^{(h)}\acute{\iota}-$  eventually developed to  $-\tau\tau-$  (e.g. Attic  $*tak.\acute{\iota}\omega/e- > \tau\acute{\alpha}\tau\tau\omega$ ,  $*pek^w.\acute{\iota}\omega/e- > \pi\acute{\epsilon}\tau\tau\omega$  etc.).

As we will see presently, however, it is necessary to suppose at the same time — if this theory is adopted — that when a geminate consonant is otherwise characteristic of the morphological category that contains a form with  $-s_2-$  from tautosyllabic  $-k^{(h)}\acute{\iota}-$ , this often led to the analogical introduction (at least graphically) of  $-s_2s_2-$  — i.e. a doubled  $-s_2-$  from  $-k^{(h)}\acute{\iota}-$  — in the forms that would have only single  $-s_2-$  by the actual sound law.

13.1 In the key example of this, an  $*ank^h\acute{\iota}\omega\varsigma$  (syllabified as  $*an.k^h\acute{\iota}\omega\varsigma$ ), the neuter comparative made on the Greek  $*ank^h\acute{\iota}$  of  $\acute{\alpha}\gamma\chi\acute{\iota}$  ‘near’, seems very likely to have become  $*ans_2\omega\varsigma$  in the first instance. There are at least three reasons for thinking so:

In the first place, only that reconstructed mid-stage — subject to the “second compensatory lengthening” ( $*ans_2- > \acute{\alpha}s-$ ) — immediately explains the initial  $\acute{\alpha}-$  of the ultimately resulting adverbialized Attic (trag., Ar.)  $\acute{\alpha}\sigma\sigma\omega$  ‘nearer’ (with the usual remodeling of the  $-\omega\varsigma$  final to  $-ων$ ).

Secondly, it simultaneously accounts for a medial  $-\sigma(\sigma)-$  in place of the  $-\tau\tau-$  that is otherwise characteristic of Attic “primary” comparatives.

Furthermore, the theory of a development of  $*-n.k^h\acute{\iota}-$  to  $-ns_2-$  in Greek can potentially explain two separate entries in Hesychius simultaneously.  $\acute{\epsilon}\pi\acute{\alpha}\iota\sigma\acute{\iota}\omega\iota\iota\cdot \kappa\alpha\theta\acute{\eta}\kappa\omicron\upsilon\tau\epsilon\varsigma$ ,

<sup>25</sup> See especially Peters (1980), 287-8.

ἐπιβάλλοντες (i.e. ‘present, coming in due course, normal, proper’) and ἐπάσιοι·καθήκοντες both occur in their correct alphabetical order in the *Lexicon*. To be sure, ἐπαίσιοι — especially in the meaning ‘proper’ — could easily be analyzed, both formally and semantically, as a compound of which the second member is αἶσα ‘lot, destiny, fate’. An ἐπαίσιος of this analysis would even be strongly motivated as an antonym to ἐξάσιος (Hom.+) ‘beyond the destined, improper’ (although ἐναίσιος [A.+] and ἐναίσιμος [Hom.+] both already supplied such an antonym). But this would do nothing to elucidate the correctly alphabetized synonym ἐπάσιοι. If we were to operate, however, with an adjectival \*ank<sup>h</sup>i-o- derived from ank<sup>h</sup>-i ‘near’ and therefore meaning ‘at hand, present, (now) arrived’ and thus ‘successfully arrived, arriving in good order’ and so ‘regular, normal, proper’, it would be perfectly feasible to assume both an endocentric augmentation with ἐπ- (cf. Hom. εἴκελος ‘like’ beside ἐπι-εἴκελος ‘id.’) and expansion of the -o- stem to -iō- (cf., e.g., Hom. ὀρθός ‘upright’ beside ὀρθίος ‘straight up, steep’). The result would be an \*ank<sup>h</sup>iō- = \*an.k<sup>h</sup>iō- > \*ans<sub>2</sub>o- → \*ep-ans<sub>2</sub>iō-. This would develop regularly to ἐπᾶσιος in most dialects (whence Hsch. 4245), but to ἐπαίσιοι (Hsch. 4103) in a dialect like Lesbian.

13.2 Returning to Attic ἀσσον, there remains the question of the -σσ-. It will now be clear, of course, that this geminate was not regularly produced by sound law. The “second compensatory lengthening” to which comparative \*ans<sub>2</sub>os would have been liable always has a single -s<sub>2</sub>- as its result. Furthermore, there is specific and positive, even if indirect, evidence that the normal outcome (ans<sub>2</sub> > ās<sub>2</sub>) was shown by this word as well. An Elean inscription (*DGEEP* 424 [Olympia]), a text in which geminates are consistently written, has the superlative ἄσιστα ‘closest’, which clearly attests an ἄσιστο- that was re-derived from the comparative as a replacement of the original superlative ἄγχιστο-, and thus points to the expected comparative ἀσσον with single -σ- as the outcome of \*ans<sub>2</sub>os. In Attic, that is to say, ἀσσον seems to be a replacement of regular ἄσσον by a reshaping that must have happened under the influence of the “template” for primary comparatives formed by such Attic geminated items (even though the geminate was -ττ-) as ἐλάττων, ἤττων, θάττων and κρεῖττων.<sup>26</sup>

<sup>26</sup> A similar mode of analysis is employed in Gunkel (2012), for which reference I thank Brent Vine. The critique offered by Vessella (2007), 139 of the Peters (1980) account of ἀσσον (see n. 25) — an account, moreover, that makes some of the argumentation of Vessella (2007), 136 otiose — is undermined by its omission of this Elean ἄσιστα, which served as a significant piece of evidence in Peters’ original presentation. The speculation by Vessella (2007), 139 about what kind of analogical remodeling phonologically regular (\*<sup>2</sup>ἄσσον “should” have undergone — and exactly when it would have undergone it — is also less than compelling. And although the statement (Vessella [2007], 139) that “an early reshaping [of (\*<sup>2</sup>ἄσσον] to ἀσσον with both the geminate and long ā would still not match the distribution of overlong syllables in Homer” is accurate, strictly speaking, the scenario proposed by Peters in no way presupposes that the reshaping of (\*<sup>2</sup>ἄσσον to ἀσσον was early enough for the form to have constituted a deviation from that distribution in the pre-literary Homeric tradition itself. For all we know, in fact, the Homeric expressions that end up showing graphic ἀσσον in a line-end segment have histories that reach back to the stage at which the form was \*ans<sub>2</sub>on, with no overlength at all. What is handed down as ἀσσον in the Homeric text, moreover, occurs in the cadence only 50% of the time in any case, which may

13.3 Now, if the single  $-\sigma-$  of frequent graphic  $\lambda\acute{\epsilon}\upsilon\sigma\omega < *le\mu k\acute{i}o/e-$ , inasmuch as it is the *lectio difficilior*, is linguistically real, and if tautosyllabic  $*-k\acute{i}-$  in Proto-Greek reliably produced single  $-s_2-$  early enough to be the starting point for all individual dialect developments, it would follow that a  $*le\mu k\acute{i}o/e-$ , if syllabified as  $le\mu.k\acute{i}o/e-$ , should yield  $*le\mu s_2 o/e-$  and thereby justify transmitted  $\lambda\acute{\epsilon}\upsilon\sigma\omega$  as the phonologically regular outcome everywhere — and certainly in all the forms relevant to Hom.  $\lambda\acute{\epsilon}\upsilon\sigma(\sigma)\omega$ . It would only be necessary to suppose in addition that just as  $\acute{\alpha}\sigma\omicron\nu$  was remodeled to Att.  $\acute{\alpha}\sigma\sigma\omicron\nu$  because of  $\acute{\epsilon}\lambda\acute{\alpha}\tau\tau\omicron\nu$  etc., the influence of the many presents in geminate  $-\sigma\sigma\omega$  (and even  $-\tau\tau\omega$ ) is behind the frequent appearance of forms of the shape  $\lambda\acute{\epsilon}\upsilon\sigma\sigma\omega$  in the traditions of the poets attesting this present.

13.4 The same factor would be seen to account for  $-\sigma\sigma-$  ( $< *k\acute{i}-$ ) after diphthongs in other present stems. A good example might be  $\gamma\lambda\acute{\alpha}\upsilon\sigma\sigma\omega$  ‘shine’ (Callim.  $\acute{\upsilon}\pi\omicron\gamma\lambda\acute{\alpha}\upsilon\sigma\sigma\omicron\nu\tau\alpha$  [*Dian.* 54], A.R.  $\delta\iota\alpha\gamma\lambda\acute{\alpha}\upsilon\sigma\sigma\omicron\nu\sigma\iota$  [*Arg.* 1.1281], Mosch.  $\acute{\upsilon}\pi\omicron\gamma\lambda\acute{\alpha}\upsilon\sigma\sigma\epsilon\sigma\kappa\epsilon$  [*Eur.* 86]), which comes as if from a  $*glauk\acute{i}o/e-$  (=  $glau.k\acute{i}o/e-$ ) to  $\gamma\lambda\alpha\upsilon\kappa\acute{o}\varsigma$  (Hom.+), ‘shining’ (later ‘gray’). And the hypothesis that  $-\check{V}\mu.k\acute{i}V-$  regularly gave  $-\check{V}\mu.s_2V-$ , appearing as  $-\check{V}\mu\sigma\sigma V-$  only inconsistently and under morphological influence, is apparently supported not only by the  $-\sigma-$  spelling found at *EM* 233.19  $\Gamma\lambda\acute{\alpha}\upsilon\sigma\omicron\nu\sigma\iota\omega$   $\acute{\alpha}\nu\tau\acute{\iota}$   $\tau\omicron\upsilon$   $\lambda\acute{\alpha}\mu\pi\omicron\nu\sigma\iota$  (a *v.l.* of A.R. *Arg.* 1.1281, for what it’s worth), but also by the related adjective  $\gamma\lambda\alpha\upsilon\sigma\acute{o}\varsigma$  ( $\gamma\lambda\alpha\upsilon\sigma\acute{o}\nu$   $\lambda\alpha\mu\pi\rho\acute{o}\nu$ .  $\theta\rho\alpha\sigma\acute{\upsilon}$ .  $\acute{\iota}\tau\alpha\mu\acute{o}\nu$  [Hsch.],  $\Gamma\lambda\alpha\upsilon\sigma\acute{o}\nu$ :  $\lambda\alpha\mu\pi\rho\acute{o}\nu$  [*EM*]), putatively reflecting  $*glauk\acute{i}\acute{o}-$  (=  $glau.k\acute{i}\acute{o}\varsigma$  etc.). The idea would be that this form, in the absence of a unitary, conspicuous, or derivationally transparent class of adjectives in  $-\sigma\sigma\omega-$ , maintained phonologically regular  $-s-$ .

13.5 Not surprisingly, the theory “ $*-\check{V}\mu.k\acute{i}V- > -\check{V}\mu.s_2V-$  and  $-\check{V}\mu\sigma\sigma V-$  analogical” is not trouble-free. For example, it is practically the null hypothesis that  $\lambda\omicron\upsilon\sigma\sigma\omicron\nu$  ‘white pith of the silver fir’, attested once in Theophrastus (3.9.7), is to be explained as a substantivized  $*lo\mu k\acute{i}\acute{o}-$  ‘white’ that is itself a derivative of the apparently inherited  $i$ -stem  $*lo/e\mu k\acute{i}-$  ‘light, whiteness’ (:  $*le\mu k\acute{o}- >$  Gk.  $\lambda\epsilon\upsilon\kappa\acute{o}\varsigma$  ‘white’) reflected by Skt.  $r\acute{u}ci-$  (f.) ‘gleam’ (AV+), Gmc.  $*lauz\acute{i}-$  (m.) ‘fire’ (e.g. OE *lieg*, OIc. *leygr*) and, in principle, OCS *lucĭ* (m.) ‘light’ — if not also by Lat. *lūcī* (*clārō*) ‘in (broad) daylight’ (Pl.) vs. *prīmā lūce* ‘at dawn’ (Pl.+).<sup>27</sup> There is no question that the proposition being considered here predicts  $\lambda\omicron\upsilon\sigma\sigma\omicron\nu$  from  $*lo\mu.k\acute{i}\acute{o}-$ . And there is no obvious class of  $-\sigma\sigma\omega-$  nominals that could be imitated by this  $\lambda\omicron\upsilon\sigma\sigma\omicron\nu$ . In fact,  $\gamma\lambda\alpha\upsilon\sigma\acute{o}\varsigma$  just above appeared to suggest positively that there was none. We therefore have an unexpected outcome.

13.6 It may not be entirely necessary to abandon the whole scheme, to be sure, just because of a *hapax* in a text that is itself essentially dependent on a single ms.<sup>28</sup> In addition, as briefly noted above, a certain amount of vacillation between  $-\sigma-$  and  $-\sigma\sigma-$  seems random. Finally, it may be worth pointing out the theoretical possibility that the Arcadian town name that is transmitted both as oxytone  $\Lambda\omicron\upsilon\sigma\omicron\acute{\iota}$  (Arist.+<sup>29</sup>) and barytone  $\Lambda\omicron\upsilon\sigma\omicron\iota$  (Call.+)<sup>29</sup> — in addition to the regional designation  $\tau\acute{\alpha}$   $\Lambda\omicron\upsilon\sigma\omicron\alpha$  (Hdn.); the stream

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well make the entire issue of overlength here irrelevant in the first place. See also Gunkel (2011), 75.

<sup>27</sup> See Nussbaum (1999), 403.

<sup>28</sup> See Einarson (1976).

<sup>29</sup> The oxytone form of the name is specifically endorsed by Herodian (3.1, 206, 23).

or spring name Λούσος (B.); and the ethnic designations Λούσιος (Polyb.+), Λουσεύς (Paus.), Λουσιάτης (Xen.+), Λουσιεύς (Is.+ — could all perfectly well reflect \**loukíō-* ‘white’ and/or \**lóukíō-* ‘white (place, water etc.)’<sup>30</sup> and thus demonstrate that the phonologically regular outcome of \**loukíō-* was indeed *λουσο-*. If this is so, *λούσσο* ‘white pith’ — confined to a single untestable instance in Theophrastus — would be either a false reading or an example of occasional (graphic or real) wavering between *-σ-* and *-σσ-*, if it does not actually result from a remodeling of \**λοῦσον* in assimilation to other vaguely botanical words in *-σσο-*, normally borrowed, like *κισσός* ‘ivy’ (Hom.+), *νάρκισσος* ‘narcissus’ (Hom.+), *κυπάρισσος* ‘cypirus’ (Hom.+), *βύσσος* ‘flax’ (Emp.+).

13.7 To summarize, it seems feasible to maintain that the sequence \**-ṽu.kiV-* acted like \**-ṽn.kiV-* and consequently gave a *-ṽu.s<sub>2</sub>V-* before any individual dialect treatments, and to suppose accordingly that *-ṽussV-* as an apparent reflex of \**-ṽu.kiV-* is analogical.

14. The next step, if the phonological history of Proto-Greek medial \**-kiV-* were being treated for its own sake, would be to study the development of \**-ṽkiV-* with the object of determining whether or not the syllabification \**-ṽ.kiV-* and an outcome like *-ṽ.s<sub>2</sub>V-* was regular for this sequence too. This would involve an investigation of present stems like Att. *πράττω*/Ion. *πρήσσω* etc. ‘do’ (\**prākiō/e-*); comparatives like Att. *ἥττω*/Ion. *ἥσσο* ‘weaker’ (as if << \**hēkiōs*), where the *ṽ*’s of the root, however, may always be secondary,<sup>31</sup> and a derivative like Att. *γλώττα*/Ion. *γλώσσα* (as if < \**glōk<sup>h</sup>iā-*) ‘tongue’, but only beside Ion. *γλάσσα* (< \**glāk<sup>h</sup>iā-*). Such an investigation, however, which would take us very far afield, is not crucial for the limited purposes of the project at hand.

15. Before closing the discussion, it should also be pointed out that although the facts seem to allow the adoption of “\**-ṽu.kiV-* > *-ṽu.s<sub>2</sub>V-* and *-ṽussV-* analogical” as a working hypothesis, there is also the opposite possibility to consider. Namely, it may be thought that although Proto-Greek \**-ṽnkiV-* was syllabified *-ṽn.kiV-* (and gave *-ṽn.s<sub>2</sub>V-*), the sequence \**-ṽukiV-* was syllabified *-ṽuk.iV-* (in which case \**-ṽkiV-* would presumably have been *-ṽk.iV-*, though this is irrelevant for present purposes). Under this assumption, it could be hypothesized further that *-ṽuk.iV-* eventually gave *-ṽussV-* as its regular outcome in (\**phulakiō/e-* >) *φυλάσσω*-type dialects (and *-ṽuttV-*, it should be noted, in *φυλάττω*-type dialects). As a final step in this picture of the developments, it may be supposed that by a further sound law *-ṽussV-* from \**-ṽuk.iV-* was simplified to *-ṽusV-* except where the geminate was supported by instances of *-ṽssV-* from \**-ṽk.iV-* in the same morphological category. In cases like the ones mentioned above, this would mean that \**glauk-iō/e-* ‘shine’ (§13.4), for example, was *glauk.iō* etc. and developed to *glauṣṣō* just as \**glauki-ō-* ‘shiny’ was *glau.kiōs* etc. and then *glauṣṣós*; but that the simplification of *-ṽussV-* to *-ṽusV-* failed with *glauṣṣō* — whence attested *γλαύσσω* — because of a large class of *-σσω* presents as models for restoration, while the simplification succeeded in *glauṣṣós* > *glauṣós* — and so *γλαυσός*

<sup>30</sup> The suggestion (*PW* 13.2 [Halbband 26], 1891) that the place name *Λουσοί/Λούσοι* has something to do with *λούω* : *λούσα-* ‘wash’ is fanciful. It is also morphologically difficult. See Chantraine (1933), 433-6.

<sup>31</sup> A generally valuable recent discussion of these is given in Vessella (2007).



— because there was no effective set of  $-\sigma\sigma\acute{o}$ - adjectives to support undoing it. In the instance at the center of attention here, this approach would mean a  $*le\mu k.i\bar{o} > *le\mu ss\bar{o} > le\mu s\bar{o}$  restored as  $le\mu ss\bar{o}$ , and would thereby still explain the *lectio difficilior*  $\lambda\acute{e}\upsilon\sigma\omega$  as an older form or spelling and  $\lambda\acute{e}\upsilon\sigma\sigma\omega$  as an innovation, whether linguistic or merely graphic.

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Cornell University