Greek στωμύλος ‘chatty’

An anomalous $\bar{o}$ -grade (and some anomalous o -grades)

Brent Vine

University of California, Los Angeles

vine@humnet.ucla.edu

Abstract

Gk. στωμύλος ‘chatty’ (Old Com.+) belongs with στόμα ‘mouth’; yet the serious formal problem with the $-\omega-$, often acknowledged, remains without explanation. Part of the conundrum: despite the connection with στόμα (a synchronic n -stem and historically a men -stem), an n -stem or men -stem basis for στωμύλος is not workable. Two different solutions, however, can be proposed, on the basis of hitherto neglected Greek data; these point to the existence of forms that can support analyses in terms of $\nu\ddot{r}ddhi$ (Solution #1) or in terms of a different type of morphological lengthened grade (Solution #2). These analyses, in turn, may shed light on the anomalous o -grade of Gk. στόμα itself, with broader implications for the study of PIE nominal morphology.

Keywords

acrostatic inflection – lengthened grade – men -stems – o -grade – $\bar{o}$ -grade – $\nu\ddot{r}ddhi$

1 Introductory

The Greek adjective στωμύλος ‘wordy, talkative, chatty, fluent’ is well attested beginning in Old Comedy (5th c. BCE+), along with a series of derivatives (also Old Com.+), such as an abstract στωμυλία/ $-ι\eta$ ‘loquaciousness’, a denominative verb στωμύλλω ‘be talkative, chatter’ (cf. στωμύλματα ‘chatter; chatterbox’), and comic coinages like στωμυλιοσυλλεκτάδης ‘gossip-collector’. The traditional etymology,¹ still almost universally accepted, connects the word with Gk. στόμα

¹ See, e.g., *GEW* and *DELG* s.v. στωμύλος, *IEW* s.v. *stomen-*.

‘mouth’ (Myc.+),² which itself, according to most analyses, has cognates in Anatolian, Avestan, Germanic, and Celtic; some of these forms will be reviewed below. Sometimes added is Gk. στόμαχος ‘throat, gullet, etc.’, to which we return briefly later.

The connection between στωμύλος and στόμα is semantically attractive (at least in a general way); but there is a serious formal problem with the -ω- of στωμύλος, as often acknowledged—thus Chantraine, on στωμύλος: “cf. στόμα; mais l’*ō* long est embarrassant” (1933:250); and similarly de Lamberterie: “le rattachement à στόμα ‘bouche’ vient tout de suite à l’esprit, mais la relation entre le terme de base et son prétendu dérivé est des plus obscures, car on est bien en peine de justifier l’apophonie ο/ω” (1990:[2.]704). Most recently, the difficulty has been acknowledged by Kölligan (2017:52, n. 41: “Evtl. zu στόμα, aber mit unklarem /ω/”), citing Chantraine.

2 Previous accounts

The problem, despite its severity, is often ignored: even the best modern treatments of στόμα and cognates³ omit consideration of στωμύλος entirely. When the form is mentioned at all, there is sometimes little more than a descriptive characterization: thus for Wennerberg (1972:27), στωμύλος is built “aus der Dehnstufe der Wurzel”—an uninformative observation that says nothing about the source or type of the lengthened grade. Only slightly more informative is the perfunctory identification of the relationship between στόμα and στωμύλος as one involving “vr̥ddhi” (Debrunner 1954:104): but this is of limited value unless the derivational path from the source form to the lengthened-grade outcome is specified. (As we will see in more detail below, στόμα itself—contrary to the implication of Debrunner’s phrasing—cannot serve as a regular source for a vr̥ddhi derivation resulting in στωμύλος.)

More detailed attempts to explain the anomalous *ō*-grade of στωμύλος have not been successful.

2 Gk. στόμα is ordinarily labeled “Hom.+”; but the Myc. boonym *to-ma-ko* /*Stomargos*/ ‘White-Mouth’ is a phrasal determinative compound that implies an accusative of respect /*stoma*/ (Meissner and Tribulato 2002:315). On the phonological variant *tu-ma-ko* /*Stumargos*/ (cf. Arc. *στυμεον* = Att. dimin. *στόμιον*), see recently García Ramón 2018:37.

3 Oettinger 2003:147–149 and 2009:345; Melchert 2007/8:184–186.

2.1 *Darms*

According to Darms (1978:329), the prominent appearance of *στωμύλος* (and its derivatives) in the relatively low-register contexts of Attic comedy suggests that its -ω- results from “expressive lengthening”, which could have been supported by the constraint in Greek against (in his formulation) three consecutive short syllables. The prominence of *στωμύλος* and derivatives in such contexts is certainly of interest, as we will see below; but this in itself does not justify an appeal to the notoriously ill-defined notion of “expressive lengthening”, which has no regular behavior in Greek and which would therefore amount to a purely speculative account of *στωμύλος* with little explanatory value. As for a constraint in Greek against “three consecutive short syllables”: this cannot provide the support Darms seeks, since the famous “Tribrach Law” in question actually refers to sequences of *non-final* tribrachs;⁴ thus an original **στομυλο-* would not in fact have been problematic in this respect.⁵

2.2 *EDG*

Beekes (*EDG* s.v. *στωμύλος*) notes the comparison with *στόμα*, which in his version derives from a PIE source “**st(e)h₃-m_h*”, and declares *στωμύλος* to have “full grade of the root (**steh₃-m-*) and a suffix *-ul-”; but at the same time, the entry (somewhat incoherently) characterizes the overall etymology of *στωμύλος* as unknown. All of this raises more questions than it answers: even if the root analysis “**st(e)h₃-*” is correct for *στόμα* and related forms (more on this point in § 3.1), it is unclear how a derivative of a neuter *men*-stem could have been based on the apparently truncated *men*-stem basis **steh₃-m-*, which renders this conception, once again, nothing more than a descriptive statement, in the manner of a Transponat, about the sequence “*στωμ-*”; nor is it clear what is meant by “a suffix *-ul-”, or how this could have been appended (and with what semantic value) to the truncated *men*-stem basis “**steh₃-m-*”.

2.3 *Rasmussen*

The most explicit account of Gk. *στωμύλος* is due to Rasmussen,⁶ for whom *στωμύλος* itself is fundamental to his analysis of *στόμα* and cognates, which can be summarized as follows:

4 See recently, and in great detail, Steriade 2018 (with earlier references).

5 Nor is it difficult to find other Greek /-ulo-/ sequences with preceding light syllable; see Buck-Petersen 1945:372–375 (e.g., *ἐριστάφυλος* ‘made of fine grapes’ [*Od.*], *βράβυλον* ‘sloe’ [*Theoc.*], *ἐρίθυλος* ‘robin-redbreast’ [*Schol.Ar.*], etc.).

6 1984, somewhat expanded in 1989:241–245.

- i. στόμα and related forms originally inflected as a neuter “*o/a*-acrostatic” noun, like **mór-i*, dat. sg. **már-i-ei* ‘sea’; for the original *a*-vocalism of the oblique stem, cf. Welsh *saſn* ‘lower jaw’ and other Celtic forms pointing to **stam-n-*.
- ii. στωμύλος points to an original neuter **stóm-ul*, with oblique stem-shapes (pre-consonantal) **stám-uη-* and (prevocalic) **stám-un-*, in other words a PIE *uel/n*-stem.
- iii. Given, in Rasmussen’s view, a PIE rule that simplifies the sequence **-m_u*- to **-m-*,⁷ the original paradigm would have developed to one with alternating (nom./acc.) **stóm-l* ~ (obl.) **stám-η-*; all of the forms related to στόμα can then be explained directly on the basis of the oblique stem (as with the Celtic **stam-n-* forms) or via straightforward developments, as with στόμα itself (< **stóm-η*, with the root vocalism of the strong forms and the stem-formation of the weak forms).
- iv. As for στωμύλος: this is “a *vr̥ddhi* adjective explainable from **stóm-ul-ós* with accent retraction according to Wheeler’s Law” (1984:147).⁸

Certainly the Wheeler’s Law component of iv. is correct; but everything else is problematic. Some critique of Rasmussen’s conception (though without reference to στωμύλος) has been registered by Oettinger (2003:148, n. 18), and more could be added. Thus, on the probable non-existence of “*o/a*-acrostatic” inflection in the word for ‘sea’, see Vine 2011:264–265 (following Nussbaum). As for στωμύλος itself: apart from various open questions (exactly what sort of “*vr̥ddhi* adjective” was involved, and why would this have occurred at such a primordial stage, even before the development of the simplified “*l/n*-stem” paradigm that led to στόμα?), it is very improbable that a Greek adjective in -υλο- (a productive category) would preserve a precious relic of a PIE *uel/n*-stem—an extremely rare type of formation.⁹ In principle, a Greek -υλο- adjective is far more likely to involve inner-Greek productive -υλο- or (what amounts to almost the same thing) a formation in -υλο- based on a *u*-stem (as in ἡδύς ‘sweet’ → ἡδύλος ‘id.’/Ἡδύλος, and other such -υλο- forms).¹⁰

7 As in Gk. μῶμαρ ‘blame’ if from **m[u]óH-m_r* (cf. ἀμύμων ‘blameless’, with **-muH-*).

8 Elements of this approach were hinted at earlier, as for example in Frisk’s notice (*GEW* s.v. στωμύλος) on the comparison of στωμύλος with στόμα (“mit *n : u-l* Wechsel?”; cf. also *EDG* on the alleged “suffix **-ul-*”, § 2.2), and Debrunner’s assumption of *vr̥ddhi* (§ 2 ad init.).

9 In his updated version, Rasmussen appends (1989:245, n. 16) three additional examples of **-ulo-* forms (two of them involving Greek -υλο- words) allegedly based on PIE *uel/n*-stems; but none is convincing; all are purely conjectural, and lack independent support for the *uel/n*-stems.

10 On derivational profiles for Gk. -υλο-, see Chantraine 1933:249–251.

2.4 *De Lamberterie*

Another detailed treatment of *στωμύλος* (together with *στόμα* and related forms) has been provided by de Lamberterie (1990:[2.]704–714). The main points bearing on *στωμύλος* can be summarized as follows:

- i. De Lamberterie argues for the connection of *στωμύλος* with the RV hapax *stāmú-* (VII.20.9b), an idea that goes back to Fick.¹¹ According to de Lamberterie, the meaning of *stāmú-* in context is roughly ‘criant, implorant, gémissant’ or (as in his translation) substantivized ‘cri’:

eṣá stómo acikradad vṛṣā ta
utá stāmúr maghavann akrapīṣṭa

VII.20.9ab

Voici la louange qui a mugi à ton adresse (comme) un taureau, et le cri que (ton chantre) a poussé (vers toi) d’une voix forte (?), ô Généreux.

704

- ii. On this basis, de Lamberterie sets up an original *u*-stem adjective **stōm-ú-* ‘sonore’, whence a derived adjective **στωμυλός*, which develops to *στωμύλος* by Wheeler’s Law.
- iii. De Lamberterie reconstructs a root **stem-* ‘(faire) entendre’ on the basis of Gmc. **stemnō-* ‘voice’ (Go. *stibna*, OHG *stimna/stimma* ‘Stimme’, etc.) and Anatolian words for ‘ear’ (Hitt. *ištamin-*, etc.), although he excludes the various ‘mouth’ words attested in Greek, Avestan, and Celtic.
- iv. For the lengthened *ō*-grade of **stōm-ú-*: this, he says, “se retrouve sinon dans **ōk-ú-* ‘rapide’, qui peut s’expliquer autrement, du moins dans gr. μῶλυσ ‘mou’, dérivé de **mel(H₂)-* ‘écraser’” (708).

On these points: *u*-stem **stōm-ú-* as the basis for a form in Gk. *-υλο-* (ii.) is morphologically unproblematic (cf. ἡδύς → ἡδύλος, § 2.3 ad fin.), and the reconstructed root shape **stem-* (iii.) will concern us below (§ 3.1(ii.)). But points i. and (especially) iv. are problematic.

Ad i.: For RV *stāmú-*, it is instructive to compare the translation by Jamison: “This praise has bellowed (like) a bull to you, and (like) a thieving [?] (monkey) has screeched, o bounteous one.”¹² In other words, as Jamison makes particularly clear in her online *Commentary* (ad loc.), she prefers connection of *stāmú-* with *√stā* ‘steal’ (so also Geldner), with reference to monkeys, “also known for their sharp cries”. Jamison reasonably concludes, however, that “it is impossible to be certain about the meaning and etymology of the hapax”.¹³ It is surely inad-

11 For bibliographical references, see Lamberterie 1990:[2.]705, n. 14 and KEWA 111.513 s.v. *stāmú-*.

12 Jamison and Brereton 2014:[2.]908.

13 Similarly Mayrhofer (EWAia 11.759, s.v.): “Ohne gesicherte Übersetzung und Deutung”.

visible, then, to build a semantic and morphological analysis of Gk. στωμύλος on the shaky foundation of such a Rig-Vedic hapax.¹⁴

Ad iv.: Since, as de Lamberterie himself admits, Gk. ὥκύς “peut s’expliquer autrement,”¹⁵ everything depends, for the lengthened *ō*-grade, on the comparison with Gk. μῶλυσ ‘soft’—a word not attested until Nicander (2nd c. BCE). But this is not promising. De Lamberterie’s extended treatment of μῶλυσ (1990: [1.]375–390) actually offers no explicit account of the lengthened grade, apart from vague comparison with the following two items:

- a. Hom.+ μῶλν ‘a fabulous herb (Hom.); garlic (post-Hom.)’: but this, despite de Lamberterie’s apologia, is most plausibly taken as a “pre-Greek” word, as is usually thought.¹⁶
- b. μῶλος in Hom. μῶλος Ἄρηος ‘turmoil of War’; but this involves either a poorly-understood “intensive” formation otherwise found in a few thematic nouns (Barnes 2009:8, assuming an original sense *‘milling of the Grinder’ and relationship with **melh*₂- ‘grind’), or else a *vṛddhi* formation related to a gloss form μῶλος ‘toil’ (Weiss 2016:482–483), in both cases with no clear applicability to a *u*-stem adjective. (We return to Weiss’s account of the form later, with additional details.)

2.5 Wennerberg

Wennerberg (1972:27) connects στωμύλος not only with RV *stāmú-* but also with the Epic Skt. hapax (neut.) *sthāman-* (MBh. 1.5116) ‘neighing (of a horse)’, observing unhelpfully once again (cf. § 2 ad init.) that this word arises “aus der Dehnstufe der Wurzel”. But Mayrhofer rightly regards the word as “problematisch” (KEWA III.528), in part because it is not entirely clear whether the word differs in origin from Ved. (neut.) *sthāman-* ‘location; strength’.¹⁷ Under these circumstances, the Epic Skt. word is best left aside.

14 So already Darms (1978:329).

15 The form is now often thought to be reduplicated; see, e.g., EDG s.v. for a reconstruction **h₁o-h₁k-ú-*, assuming connection with PIE **h₁éḱmo-* ‘horse’ and regarded as “quite possible”. As noted by de Vaan (EDLIL s.v. *ōcior*), reconstruction with **h₃* is also possible (**h₃e-h₃ k-ú-*) if the connection with ‘horse’ is abandoned. Formally similar (though not involving reduplication) is Dunkel’s conception **h₂o-h₁k-ú-*, with an initial particle **h₂o* (LIPP 2.330).

16 Note especially EDG s.v., comparing μῶλνζα ‘garlic’ (likely related to μῶλν) with κόννζα ‘various species of inula or fleabane’ and ἔρυνζα ‘rice’, all with “non-Greek suffix” (to which one may add μάννζα ‘garlic’; Beekes 2014:61), leading to the conclusion about μῶλν that “[a]ll proposed IE etymologies ... have to be rejected”.

17 As Wennerberg notes, Hiersche (1964:66–67) had likewise assumed the existence of two different “*sthāman-*” words, although he favored a different etymological background for the epic word.

But the important contribution of Wennerberg's study is an attractive proposal¹⁸ that the words for 'mouth' and 'ear' belong with the root **temh₁-* 'cut' (: Gk. *τάμνω*, Lat. *temnō*, Mlr. *tamnaid*, etc.; *LIV* s.v.). If this is correct, the root in question is to be reconstructed as **(s)temh₁-* (with *s*-mobile), and its derivatives meaning 'mouth' and 'ear' originally meant 'slit, opening', whence 'bodily (oral/aural) orifice'.

2.6 Local summary and preview

The interim conclusion to be drawn is that no satisfactory explanation is available so far for the enigmatic -ω- of *στωμύλος*. In principle, however, two types of approaches are worth considering further:

- i. an account based on a morphological *vṛddhi* formation—but one that is more explicit in various respects than vague assertions like that of Debrunner (§ 2 ad init.) and with a stronger morphological basis than Rasmussen's *vṛddhi* analysis (§ 2.3), which operates with a questionable (and in any case otherwise undocumented, apart from inferences about the explanandum *στωμύλος* itself) PIE *uel/n*-stem;
- ii. an account that appeals to some other type of morphological lengthened grade—but more principled than the vague comparison with obscure Greek forms containing poorly-understood lengthened *ō*-grades.

Following some additional preliminary background (§§ 3 and 4), I will propose two new solutions to the problem, one of each type (§§ 5 and 6); a choice between the two is not easy, although some criteria for evaluation may be available. The paper concludes (§ 7) with discussion of the implications of these solutions for the problematic *o*-grade of Gk. *στόμα* itself and ultimately its reconstructed PIE etymon.

3 More on *στόμα* and related forms

It will be helpful to review certain additional details about the analysis of Gk. *στόμα* and related forms. But there is no need to rehearse non-essential (and sometimes controversial) points, such as how best to interpret the root vocalism of Av. *staman-* '(dog's) mouth', or how to interpret the *a*-vocalism of the Celtic data (cf. § 2.3(i)).

18 Accepted by both Oettinger and Melchert (see n. 3 above).

3.1 *On the original root shape*

We will accept Wennerberg’s conception (§ 2.5), as does Melchert, who added an additional argument (2007/8:184) based on the semantics of CLuv. $\text{Ḫ}^{\text{A}}\text{āš-tummant-}$ ‘gateway’ < *‘mouth aperture’. We may now comment briefly on two other approaches to the reconstruction of the root:

- i. The previously popular $*\text{steh}_3\text{-m}\eta$ (§ 2.2)¹⁹ is problematic for several reasons. As pointed out by Oettinger (2003:148), this creates difficulties for CLuv. -tummant- (which is not likely to have a background involving $*\text{h}_3$) and also excludes the Germanic material, with its *e*-grade forms in the word for ‘voice’ (§ 2.4(iii.)), also difficult to square with PIE $*\text{h}_3$.²⁰ Nor is it attractive, more generally, to posit an obscure verbal root $*\text{steh}_3\text{-}$, with unknown meaning, as the basis for a term that appears to be a primary *men*-stem.
- ii. De Lamberterie’s alleged verbal root $*\text{stem-}$ (§ 2.4(iii.)) is a construct based on the words for ‘ear’ (in Anatolian) and ‘voice’ (in Germanic), unattractively separating these from Gk. στόμα (as well as the other ‘mouth’ words in Avestan and Celtic, despite the striking similarities between, for example, Hitt. *ištamin-* and Av. *staman-*) and (likewise unattractively) separating στόμα from στωμύλος.

3.2 *Some essentials of Melchert’s analysis (2007/8:184–186)*

It will be useful for further discussion of στωμύλος to recall the basic conclusions of Melchert’s analysis of Gk. στόμα and related forms, especially with reference to the *o*-grade material:

- i. What appears descriptively to be a “plain *n*-stem” in Gk. στόμα and cognates actually goes back to an original neut. *men*-stem $*\text{stómh}_1\text{-m}\eta$. This form then underwent laryngeal loss (via the “Saussure-Hirt effect”), whence $*\text{stómm}\eta$; the resulting sequence, in turn, was subject to regular PIE degemination of $*\text{-mm-}$ to $[-\text{m-}]$,²¹ whence $*\text{stóm}\eta >$ Gk. στόμα.
- ii. The PIE *men*-stem $*\text{stómh}_1\text{-m}\eta$ reflects a rare *o/e*-acrostatic *men*-stem, for which Melchert compared Gk. πῶμα ‘lid, cover’ (: PIE $*\text{peh}_2\text{-}$ ‘protect’).
- iii. A hysterokinetic internal derivative $*\text{stomh}_1\text{-mén-}$ (with *o*-grade after the neut. *men*-stem) accounts for Hitt. *ištamin-* ‘ear’.²²

19 Adherents of this conception include (in addition to EDG s.vv. στόμα and στωμύλος) Hamp 1982, Melchert 1994:74 (following Oettinger 1982:235), Lubotsky 1997:56–57, and EDHIL s.v. (UZU) *ištāman-/ištamin-*.

20 The latter point has been noted also by Kroonen (EDPG s.v. $*\text{stimmō-}$).

21 For the $*\text{-mm-}$ degemination, see Byrd 2015:44; similarly already Tremblay 1996:126, n. 87.

22 See Melchert for discussion of *e*-grade and zero-grade forms, left aside here.

4 Vṛddhi accounts and other lengthened grades: further discussion

For a vṛddhi analysis, it is evident that only patterns of the type “R(o) → R(ō)” will be of interest for the problem at hand; other vṛddhi patterns (such as R(Ø) → R(e)-ó-, R(e)-o- → R(ē)-ó-, etc.) are not relevant.²³

A second point connected with vṛddhi arises from an additional problem with the analysis of στωμύλος that was noted by de Lamberterie (besides the basic problem of the root vocalism): “[on est bien en peine de justifier ...] pourquoi la finale -α < *-η du substantif, qui est ancienne ..., n’apparaît pas dans l’adjectif” (1990:[2.1704]). This is not actually problematic at the level of Greek derivational patterns: derivatives of στόμα should be based on the synchronic oblique stem στοματ- (cf. dimin. στομάτιον, adj. στοματικός, etc.); but as it happens, -ματυλο- forms based on *men*-stems are not attested,²⁴ and (given the productivity of neut. *men*-stems in Greek) the absence of -ματυλο- forms is probably not an accidental gap. Thus, whatever the reason for this gap, the absence of a form like †στωμάτυλος is not in itself a problem.²⁵ Rather than a “synchronic Greek” derivation of that kind, στωμύλος should be based on a more ancient vṛddhi formation, such as one resulting in an *o*-stem in the first instance, which then served as the basis for the -υλο- formation (one of the regular patterns available for -υλο- forms, cf. Hom.+ δεινός ‘terrible, fearful’ → post-Hom. Δεινύλος, Hom.+ πηγρός ‘solid; congealed’ [→ *πηγύλος] → Hom.+ πηγυλῖς ‘frozen; frost’, among other such forms). In that case, however, the absence of the nasal (which, as de Lamberterie noted, is assuredly old) is indeed problematic; in other words, an archaic vṛddhi formation related to στόμα should certainly appear as *stōmno- or *stōmeno- (there being no evidence for “suffix truncation” in vṛddhi derivatives). And for *stōmno- in particular, the derived -υλο- adjective should be *στωμνύλο-, without simplification of /-mn-/.²⁶ The conclusion to be drawn from these considerations is that a vṛddhi formation

23 Convenient descriptive surveys of vṛddhi patterns may be found in Darms 1978, Nussbaum 2009.

24 Not a single such form is to be found in Kretschmer-Locker 1944 or Buck-Petersen 1945.

25 The absence of -ματυλο- forms might be ascribed, at least in part, to the constraint against non-final tribrachs (see again Steriade 2018, n. 4 above), whence dispreferred sequences like †δνοματυλο- or even †στοματυλο-; but since most simplex deverbative *men*-stems in Greek (at least before the Hellenistic period) have a heavy root syllable (or other heavy syllable) preceding the *men*-stem suffix (cf. Gunkel 2011), this is not likely to be the whole story.

26 Apart from episodic instances like νώνυμος ‘nameless’ (*Od.*+), a later simplification of νώνυμνος (*Il.*+), there is no regular reduction of tautosyllabic /-mn-/, cf. πρύμνα/πρύμνη ‘ship’s stern’, κρημνός ‘crag’, etc.

based on the prehistoric *n*-stem (of any kind, including *men*-stem) underlying Gk. στόμα is not workable.

A final preliminary point concerns lengthened grades of other types (i.e., non-*v̥ddhi* lengthened grades). If στόμα is ultimately based on a neut. *men*-stem (§ 3.2(i.)), even a (rare) *o/e*-acrostatic version (§ 3.2(ii.)), there is no basis for a lengthened *ō*-grade in such a paradigm, or in any of its regular derivatives.

5 Solution #1: a new *V̥ddhi* account

It has occasionally been acknowledged²⁷ but is generally neglected that some Greek data point to the existence of a form (or forms) related to στόμα (and στωμύλος) *not* based on an *n*-stem. These data are well-represented in 5th-century Greek,²⁸ including the following:

- i. dimin. στόμιον ‘mouth’ (various senses, including ‘bridle-bit’) (Aesch., Emped.+; vs. στομάτιον [§ 4])²⁹
- ii. στομώ ‘muzzle, gag’ (Hdt.+), στόμωμα ‘mouth’ (various senses) (Aesch.+)
- iii. στομώδης ‘clear-voiced’ (Soph.+)
- iv. στόμις m. ‘hard-mouthed horse’ (Aesch.)
- v. εὖστομος ‘speaking nicely/propitiously [= being silent]’ (Hdt.+), cf. εὖστομέω ‘sing sweetly, speak propitiously’ (Aesch.+); κακόστομος ‘foul-mouthed’ (Eur.+), cf. κακοστομέω ‘revile’ (Soph.)
- vi. στομοδόκος ‘στωμύλος’ (Pherecr.)

As pointed out by Georgacas and others, the range of material seen in these forms is consistent with a thematic basis **stom-o-* (perhaps among other possible source forms, one of which will come under discussion below). Here we can add that στόμαχος (cf. § 1) is also consistent with thematic **στομο-*, given one standard derivational background for Gk. -αχος forms (Chantraine 1933:403)—thus, e.g., νήπιος ‘child(ish)’ → νηπίαχος ‘id.’, etc.³⁰

I suggest, then, that beside **stóm-n̥*, there was a thematic by-form **stom-o-* ‘mouth’ (in origin what might be called a “**stómos* form”: thus ‘cutting’ > ‘slit’, cf.

27 Georgacas 1958:183; Wennerberg 1972:26 with n. 18, following Georgacas; Hamp 1982.

28 Actually Aesch., Emped., thus potentially attested from the early 5th century.

29 Arc. στυμεον (n. 2 above).

30 Darms (1978:329) refers to this material as involving “avoidance” or “circumvention” (*Umgehung*) of the *n*-stem, perhaps thinking of patterns whereby *men*-stems can appear in the guise of *o*-stems, as in first compound members, of the type σπέρμα ‘sowing, seed’ (Hom.+; cf. Myc. *pe-mo*, *pe-ma*) → σπερματολόγος ‘picking up seeds’ (Epicharmus), but also σπερμολόγος (Aristoph.+). While this can in principle apply to some items (such as στομόδοκος, vi. above), the non-*n*-stem data are too extensive to be accounted for in this way.

τόμος ‘slice’),³¹ all but ousted by (**stóm-η* >) στόμα in the basic meaning ‘mouth’, but marginally surviving in the above non-*n*-stem forms. It was this thematic **stom-o-* that served as the basis for a *vṛddhi* derivative **stōm-o-*, which can perhaps be most plausibly identified as the type ‘X’ (noun) → ‘X-like’ (Nussbaum 2009); as Nussbaum observes, a viable semantic pathway would be ‘belonging to X’ ~ ‘having the features of X’, which in turn would naturally include both “dismissive” terms and diminutives. The resulting *vṛddhi* form **stōmo-* ‘like a mouth’ would then be further characterized by the expressive adjective suffix -υλο- (which prominently includes “dismissives” and diminutives), whence **στωμυλός* ‘mouth-like, like nothing but a mouth, pure mouth’ = ‘running off at the mouth, talkative, chatty’, and then *στωμύλος* by Wheeler’s Law (cf. δεινός → Δεινύλος, etc., § 4 above). In terms of semantics, Darms (1978:329) was right to question a “literal” *vṛddhi* sense like ‘zum Mund gehörig’; but the version just described—similar in spirit to Rasmussen’s evocative comparison (1989:245, n. 16) with Eng. *mouthy*—fits well with the expressive value of Gk. -υλο- and the prominence of *στωμύλος* and derivatives in comic usage, the importance of which Darms had noted himself (§ 2.1).

Darms’s other reason for rejecting a *vṛddhi* analysis based on a form like **stōmo-* was simply the relative rarity of this type of formation in Greek. But this is not a strong counterargument, especially given the existence of at least one or two other examples of essentially the same type: cf. κός ‘a hollow, chasm’ (Hsch.) vs. κῶς (also κῶς) ‘cave, den; prison’ (Strabo, Stephanus of Byzantium, Hsch.), i.e., **kouH-o-* ‘a hollow’³² → **kōuH-o-* ‘hollow-like (thing)’ (Nussbaum 2009). More recently, Weiss (2016:482–483) has proposed (cf. § 2.4 above, ad fin.) that Hom. μῶλος ‘turmoil (esp. of war)’ originally meant *‘struggle’ and reflects a *vṛddhi* formation **mōlo-* ‘of toil’ (subsequently substantivized), based on a **molo-* ‘toil’ seen in the gloss form μόλος: πόνος. μάχη. φρύαγμα (Hsch.), to a root *(*H*)*mel*(*H*)- (also attested in Lat. *molestus* ‘tiresome’ and Gk. μόλις ‘hardly’, with a further derivative of the *vṛddhi* formation in Lat. *mōlēs* ‘large mass; struggle’ and its denominative *mōlīrī* ‘strive’).

In this scenario, there would be little possibility of connecting *στωμύλος* with RV *stāmú-* (§ 2.4(i.)); but given (as already discussed) the uncertainties attending such a hapax, this would not be a serious loss.

31 Recently on “τόμος forms” and related material: Nussbaum 2017.

32 Cf. Gk. κοῖλος (< κό(φ)ιλος) ‘hollow’, κύαρ ‘hole, eye of a needle’, elsewhere Lat. *cavus* adj. ‘hollow’, Arm. *soyl* ‘cavity’, etc.

6 Solution #2: a different type of lengthened grade

The isolated and non-derivable nature of the sequence στωμ- (in στωμύλος) suggests, in principle, a fairly deep archaism; one could thus conjecture that another source could be an animate root noun **stómh₁-s*, with inflection and formal renewals similar to those seen in **dóm-s* ‘house’:³³

nom.	<i>*stómh₁-s</i>	> <i>*stóm</i>	~ <i>*dóm</i>
acc.	<i>*stómh₁-m</i>	> <i>*stóm</i>	<i>*dóm</i> (→ Gk. δῶμα; Nussbaum 2008)
gen.	<i>*stémh₁-s</i>	→ <i>*stḗnh₁-és</i>	<i>*dém-s</i> → <i>*dm̥(m)-és</i>
(etc.)			

The idea that a root noun might underlie στόμα has been tentatively suggested, based in part on the non-*n*-stem forms surveyed above (§5), though without reference to στωμύλος itself.³⁴ To be sure, the precise derivational pattern “root noun → -υλο- form” lacks unequivocal examples; but the variety of derivational bases underlying -υλο- forms makes it difficult to exclude this possibility.

Note further that a root noun can appear with various parallel formations, thereby incorporating most of the morphological variety actually in play:

- i. root noun (**stóm*) + *men*-stem (**stómh₁-m̥*): cf. **b^hór* (Gk. φῶρ, Lat. *fūr* ‘thief’) + **b^hér-m̥* (Ved. *bhárman-*)/**b^hér-m̥* (RV *bhárman-*, OCS *brěmę* ‘burden’)³⁵
- ii. root noun (**stóm*) + “τόμος form” (**stómh₁-o-*): cf. **dóm* ‘house’ + **dóm-o-* (Ved. *dáma-*, Gk. δόμος, Lat. *domus*; Nussbaum 2017:236)
- iii. root noun (**stóm*) + *u*-stem (RV *stāmú-* ??): cf. **dóm* ‘house’ + **dom-u-* (at least Vedic, Slavic, Armenian),³⁶ **dm-o-* (Hom. δμῶς ‘slave, captive’)³⁷

In a more general way, στωμύλος in this conception (root noun **stóm* → **stōm-ulo-*) would be formally similar to Lat. *hūmānus* ‘human’, if this reflects a

33 On the inflection of **dóm-s*, see recently Weiss 2017.

34 Cf. Schwyzler (1939:524, n. 5) on δῶμα and στόμα (“phonetisch für *δωμ *στομ (?)?”), Georgacas (1958:183) citing Schwyzler, and Wennerberg (1972:26, n. 18, with a further reference) developing Georgacas (“Es ist also erlaubt, für das Indogermanische die Stammformen **stom-*, **stomen-*, **stomo-* usw. ‘Mund’ zu rekonstruieren”).

35 Although the OCS form is itself ambiguous, other Slavic comparanda (e.g. BCSM *brěme*) point to acute intonation for Proto-Slavic, thus supporting the *ē*-grade.

36 Ved. *dāmūnas-*, traditionally ‘Hausherr’ et sim. (but see Pinault 2000 for detailed analysis); OCS *domŭ* ‘house’; Arm. *tanowtēr* ‘master of the house’ (Olsen 1999:674). The Latin *u*-stem *domu-* can be interpreted as secondary (Weiss 2011:252–253).

37 Differently on this *u*-stem: Widmer 2008, especially 624, n. 20 (interpreting the form as secondarily derived from a locative formant).

derived adjective based on a root noun **hōm* (: Gk. *χθών*) ‘earth’ > **hūm*,³⁸ whence (with productive **-āno-*) adjectival **hūm-āno-*.³⁹

A choice between the two solutions just advanced is not entirely straightforward. On one hand, the root-noun hypothesis has the capability of incorporating the *u*-stem RV *stāmú-*; yet this is not a significant advantage, given the difficulties attending that form, as well as the overall rarity of *u*-stems beside root nouns. On the other side of the ledger, it is generally simpler to arrive at a reconstructed *o*-stem, on the basis of material like that in § 5, rather than a root noun (a recessive category), even if that basis is technically possible. One might thus, on these grounds, give the nod to the *vṛddhi* analysis in § 5. Still, the more general result is that we have progressed from the rather desperate situation described at the outset to one in which two different solutions for the background of Gk. *στωμύλος* appear to have some plausibility.

7 Implications for Gk. *στόμα* and related forms (and other *o*-grade neut. *men*-stems)

Recall that according to Melchert (§ 3.2(ii.)), Gk. *στόμα* and cognates descend from a rare *o/e*-acrostatic neut. *men*-stem, comparable to Gk. *πῶμα* ‘lid, cover’ (: **peh₂-* ‘protect’). Yet this seems questionable: neut. *men*-stems are resolutely proterokinetic, and there is hardly any other evidence for an inflectional construct identifiable as an “*o/e*-acrostatic neut. *men*-stem”.

Given the comparison with Gk. *πῶμα* (as well as the facts that Greek preserves both *men*-stems and *o*-vocalism well), it is instructive to consider other cases of *o*-grade *men*-stems in Greek (including, descriptively, “*ō*-grade” examples, as in *πῶμα*). In general, these fall into three types:

- i. etymologically obscure forms (e.g., *σῶμα* ‘body’)⁴⁰
- ii. forms with *o*-vocalism from **h₃* (e.g., *ὄμμα* ‘eye’ < **h₃ék^w-mṇ*, *πῶμα* ‘drink’ < **péh₃-mṇ*)
- iii. deverbatives with secondary *o*-grade—for example, with *o*-grade imported from an iterative-causative in R(o)-*έξε/o-* (e.g., *οἰδμα* ‘swelling’ ← *οἰδέω* ‘be swollen’; *LIV* s.v. **h₂eǵd-*)

What, then, of *πῶμα* itself? While one cannot absolutely rule out the idea of an isolated *o/e*-acrostatic form (as a representative of a rare type), the *o*-grade

38 For the phonology, cf. **b^hōr* > Lat. *fūr* (i. above).

39 See on this derivational possibility Weiss 2011:289, n. 122.

40 There is no shortage of theories; several are surveyed in *EDG* s.v., together with the assertion that “there is no convincing etymology”.

is also conceivably secondary, essentially after the pattern of iii. (i.e., with secondary *o*-grade based on some related “legitimate” *o*-grade form). Thus, despite the lack of **-i-* in **póh₂-mē* ‘protection’, the form might have been influenced by the *o*-grade in the parallel hysterokinetic derivative **poh₂i-mén-* (> Gk. ποιμήν ‘shepherd’), a vocalism that itself has been plausibly explained (Oettinger 2009:345) as remodeled after **póh₂i-u-* (> Gk. πῶν ‘flock, herd’), an original acrostatic neuter for which *o/e*-inflection is regular. Alternatively, there could have been an *o*-grade verbal form in the mix, such as an iterative/causative **poh₂(i)-éie/o-* (of the type οἶδεμα ← οἶδέω, iii. above),⁴¹ or possibly an *o*-grade perfect, as has in fact been suggested.⁴²

There is really only one other serious candidate in the literature for a PIE *o/e*-acrostatic neut. *men*-stem, namely Lat. *unguen* ‘ointment’ and cognates.⁴³ But the **h₂o-* interpretation (followed, for example, by *LIV* s.v. **h₂eng^w-*) depends crucially on Janda’s analysis of Gk. διθύραμβος ‘type of lyric poetry; festival name; epithet of Dionysus’ as (originally) **die* (Doppel-) Türe salbend/preisend’ vel sim. (2000:282–287). Janda’s theory is undeniably clever and is in some ways attractive; but the Greek word is at least as likely to be a “pre-Greek” item (so, unanimously, the Greek etymological dictionaries: see *DELG*, *GEW*, and *EDG* s.v.), as Beekes has plausibly argued in some detail (2014:136–137), on the basis of the following considerations:

- a. Gk. διθύραμβος is only one of a series of other Greek (and possibly pre-Greek) words in -αμβος and -υμβος, some also with religious/ceremonial senses: ἵαμβος ‘iamb; iambic trimeter’, θρίαμβος ‘hymn to Dionysus’, ἴθυμβος ‘Bacchic dance and song’, σήραμβος: εἶδος κανθάρου Hsch.; cf. also καράμβας: ῥάβδον ποιμενικήν Hsch. Janda offers strained attempts to integrate ἵαμβος and θρίαμβος with διθύραμβος, but does not mention ἴθυμβος.
- b. Gk. διθύραμβος aligns well formally with a well-attested pre-Greek suffixal element -υρ-: cf. nominal material like ζέφυρος ‘[N]W wind’, λάθυρος ‘kind of bean’, μαυκυρόν: τὸ χλιαρόν Hsch., σάτυρος ‘satyr’; verbal forms such as ὀνυρίζεται: ὀδύρεται Hsch., ψιθυρίζω ‘whisper, mutter’; and a series of toponyms, such as Τέγυρα (in Boeotia) and others.
- c. Gk. διθύραμβος embodies, descriptively, a type of consonantal variation (-αμβο- ~ -αμφο-, cf. ΔΙΘΥΡΑΜΦΟΣ in a 5th-c. Attic vase)⁴⁴ that is potentially symptomatic of pre-Greek status, although simple error or aspirate assimilation is admittedly difficult to exclude.

41 Cf. *LIV* s.v. **peh₂(i)-* n. 4 on the possible existence of **poh₂-éie/o-* in Iranian.

42 Cf. van Beek 2016:438, n. 72 on perf. **pe-poh₂s-* and πῶμα.

43 Reconstructed as a plain *n*-stem **h₂óng^w-n* by Stüber (2000), but see Melchert 2007/8:186–187 for the reinterpretation as a *men*-stem.

44 *SEG* 16 (1959) no. 40; this form is not mentioned by Janda.

Note further that a necessary consequence of the $*h_2o$ -claim is the assumption that the Italic thematic verb Lat. *unguere*, U. *umtu* ‘anoint’ would have its *o*-grade based on the corresponding noun (Lat. *ungen*, U. *umen*).⁴⁵ But this is a primary verb, and one would normally expect influence of this kind to go in the other direction—cf. again Gk. $\omicron\delta\mu\alpha \leftarrow \omicron\delta\acute{\epsilon}\omega$ (iii. above). If, then, the Italic verb $*ong^w\text{-}e/o\text{-}$ is basic (rather than the *n*-stem noun), its *o*-grade could be explained in one of two ways. First, if one makes the assumption of PIE initial $*h_2\text{-}$, this could point to an *o*-grade present (a so-called “*molō*-verb”); but no other evidence speaks in favor of that possibility. Secondly, some other factor would account for the *o*-grade of *all* of the forms in question, the obvious candidate being root-initial $*h_3\text{-}$, the traditional explanation.⁴⁶

The upshot of these considerations for PIE $*stómh_1\text{-}m\grave{n}$ is that, rather than reflecting a rare *o/e*-acrostatic neut. *men*-stem, the *o*-grade might better be explained via influence from one or both of the formations described above, namely a “ $\tau\acute{o}\mu\omicron\varsigma$ form” $*stómh_1\text{-}o\text{-}$ or a root noun $*stóm\text{-}/stém\text{-}$, the latter perhaps in the adjusted form $*stóm\text{-}/stóm\text{-}$ (cf. Gk. $\pi\acute{o}\upsilon\varsigma/\pi\omicron\delta\acute{o}\varsigma$ ‘foot’ < $*pód\text{-}/péd\text{-}$).⁴⁷ In other words, $*stómh_1\text{-}m\grave{n} \leftarrow *stómh_1\text{-}o\text{-}$ (or $\leftarrow *stóm\text{-}$) would be comparable to $*poh_2i\text{-}mén\text{-} \leftarrow *póh_2i\text{-}u\text{-}$ (above), thereby striking a blow against the already questionable notion of “*o/e*-acrostatic neut. *men*-stems”.

In a still broader perspective: this is a time when the classic “Erlangen model” of athematic nominal accent and ablaut⁴⁸ is undergoing serious reevaluation, in more than one respect. Thus, most recently, Kloekhorst 2018 proposes a new conception of the pre-PIE background of the traditional system. But there is growing skepticism about the robustness of some of the traditional accent/ablaut classes themselves,⁴⁹ and there are new approaches to the nature and assignment of accent in PIE, such as the so-called “compositional” approach.⁵⁰ Thus it remains important—indeed, it is now especially important—to continue to circumscribe as accurately as possible the descriptive foundations of PIE nominal categories.

45 So Janda 2000:284, followed by LIV s.v. $*h_2eng^w\text{-}$.

46 Cf. Melchert’s properly agnostic notation “ $*h_{2,\beta}eng^w\text{-}$ ”.

47 Cf. Melchert’s own assumption that the hysterokinetic derivative $*stomh_1\text{-}mén\text{-}$ owes its *o*-grade vocalism to $*stómh_1\text{-}m\grave{n}$ (§ 3.2(iii.)).

48 A standard version of the theory is described in Fortson 2010:119–122.

49 Thus, for example, the proterokinetic category has come under particular fire, as in the reanalysis by Kümmel (2014), demonstrating connections between suffix ablaut and phonological structure.

50 See Kiparsky 2010; a recent study in that framework, with typological grounding and detailed application to Anatolian, is Yates 2017.

Acknowledgments

An earlier version of this paper was presented at the 37th East Coast Indo-European Conference (University of Michigan, June 2018). I am deeply grateful for comments and suggestions received at that time, and also for helpful critique from two anonymous *IEL* referees and from Ron Kim. The usual disclaimers apply.

References

- Barnes, Timothy. 2009. Homeric μῶλος ἄρηος, Hittite *mallai ḫarrai*. In Stephanie W. Jamison, H. Craig Melchert, and Brent Vine (eds.), *Proceedings of the 20th Annual UCLA Indo-European Conference*, 1–17. Bremen: Hempen.
- Beekes, Robert S.P. 2014. *Pre-Greek: Phonology, Morphology, Lexicon*. ed. by Stefan Norbruis. Leiden/Boston: Brill.
- Buck, Carl Darling and Walter Petersen. 1945. *A Reverse Index of Greek Nouns and Adjectives* (arranged by terminations with brief historical introduction). Chicago: University of Chicago Press.
- Byrd, Andrew Miles. 2015. *The Indo-European Syllable*. Leiden/Boston: Brill.
- Chantraine, Pierre. 1933. *La formation des noms en grec ancien*. Paris: Klincksieck.
- Darms, Georg. 1978. *Schwäher und Schwager, Hahn und Huhn: Die Vrddhi-Ableitung im Germanischen*. Munich: Kitzinger (MSS Beiheft 9).
- Debrunner, Albert. 1954. *Altindische Grammatik*, 11.2: *Die Nominalsuffixe*. Göttingen: Vandenhoeck & Ruprecht.
- DELG: Pierre Chantraine, *Dictionnaire étymologique de la langue grecque: Histoire des mots*. Paris: Klincksieck, 1999.
- EDG: Robert S.P. Beekes, *Etymological Dictionary of Greek*. Leiden/Boston: Brill, 2010.
- EDHIL: Alwin Kloekhorst, *Etymological Dictionary of the Hittite Inherited Lexicon*. Leiden/Boston: Brill, 2008.
- EDPG: Guus Kroonen, *Etymological Dictionary of Proto-Germanic*. Leiden/Boston: Brill, 2013.
- EWAia: Manfred Mayrhofer, *Etymologisches Wörterbuch des Altindoarischen*. Heidelberg: Winter, 1986–2001.
- García Ramón, José Luis. 2018. Ancient Greek dialectology: old and new questions, recent developments. In Georgios K. Giannakis, Emilio Crespo, and Panagiotis Filas (eds.), *Studies in Ancient Greek Dialects: From Central Greece to the Black Sea*, 29–106. Berlin/Boston: de Gruyter.
- Georgacas, Demetrius J. 1958. A contribution to Greek word history: derivation and etymology. *Glotta* 36.161–193.

- GEW: Hjalmar Frisk, *Griechisches etymologisches Wörterbuch*. Heidelberg: Winter, 1960–1972.
- Gunkel, Dieter. 2011. The emergence of foot structure as a factor in the formation of Greek verbal nouns in $-\mu\alpha(\tau)$ -. *Münchener Studien zur Sprachwissenschaft* 65.77–103.
- Hamp, Eric P. 1982. Welsh *safn*, Breton *staon*. *Bulletin of the Board of Celtic Studies* 30.44–45.
- Hiersche, Rolf. 1964. *Untersuchungen zur Frage der Tenues aspiratae im Indogermanischen*. Wiesbaden: Harrassowitz.
- IEW: Julius Pokorny, *Indogermanisches etymologisches Wörterbuch*. Tübingen/Basel: Francke, 1959.
- Jamison *Commentary*: Stephanie W. Jamison, *Rigveda Translation: Commentary*. rigvedacommentary.alc.ucla.edu (accessed 4/23/18).
- Jamison, Stephanie W. and Joel P. Brereton. 2014. *The Rigveda: The Earliest Religious Poetry of India*. New York: Oxford University Press.
- Janda, Michael. 2000. *Eleusis: Das indogermanische Erbe der Mysterien*. Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- KEWA: Manfred Mayrhofer, *Kurzgefaßtes etymologisches Wörterbuch des Altindischen*. Heidelberg: Winter, 1956–1980.
- Kiparsky, Paul. 2010. Compositional vs. paradigmatic approaches to accent and ablaut. In Stephanie W. Jamison, H. Craig Melchert, and Brent Vine (eds.), *Proceedings of the 21st Annual UCLA Indo-European Conference*, 137–181. Bremen: Hempen.
- Kloekhorst, Alwin. 2018. The origin of the Proto-Indo-European nominal accent-ablaut paradigms. In Elisabeth Rieken (ed.), *100 Jahre Entzifferung des Hethitischen*, 179–203. Wiesbaden: Reichert.
- Kölligan, Daniel. 2017. Dissimilatorischer Schwund von /l/ im Griechischen. *Historische Sprachforschung* 130.42–62.
- Kretschmer, Paul and Ernst Locker. 1944. *Rückläufiges Wörterbuch der griechischen Sprache*. Göttingen: Vandenhoeck & Ruprecht.
- Kümmel, Martin. 2014. Zum “proterokinetischen” Ablaut. In Norbert Oettinger and Thomas Steer (eds.), *Das Nomen im Indogermanischen: Morphologie, Substantiv versus Adjektiv, Kollektivum*, 164–179. Wiesbaden: Reichert.
- de Lamberterie, Charles. 1990. *Les adjectifs grecs en -us: sémantique et comparaison*. Louvain-la-Neuve: Peeters.
- LIV: Helmut Rix and Martin Kümmel, *Lexikon der indogermanischen Verben*². Wiesbaden: Reichert, 2001.
- Lubotsky, Alexander. 1997. Review of Marianne Volkart, *Zu Brugmanns Gesetz im Altindischen* (1994). *Kratylos* 42.55–59.
- Meissner, Torsten and Olga Tribulato. 2002. Nominal composition in Mycenaean Greek. *Transactions of the Philological Society* 100.3.289–330.
- Melchert, H. Craig. 1994. *Anatolian Historical Phonology*. Amsterdam/Atlanta: Rodopi.

- Melchert, H. Craig. 2007/8. Neuter stems with suffix $^{*}(e)n-$ in Anatolian and Proto-Indo-European. *Die Sprache* 47:2.182–191.
- Nussbaum, Alan J. 2008. Remarks on one or more Greek words: actually just epic δῶ ‘dwelling’. Paper presented at the 27th East Coast Indo-European Conference (University of Georgia).
- Nussbaum, Alan J. 2009. Genitivalia. Paper presented at the 28th East Coast Indo-European Conference (University of Iceland).
- Nussbaum, Alan J. 2017. Agentive and other derivatives of “τόμος-type” nouns. In Claire Le Feuvre, Daniel Petit, and Georges-Jean Pinault (eds.), *Verbal Adjectives and Participles in Indo-European Languages*, 233–266. Bremen: Hempen.
- Oettinger, Norbert. 1982. Die Dentalerweiterung von n -Stämmen und Heteroklitika im Griechischen, Anatolischen und Altindischen. In Johann Tischler (ed.), *Serta Indogermanica: Festschrift für Günter Neumann*, 233–245. Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- Oettinger, Norbert. 2003. Zum Ablaut von n -Stämmen im Anatolischen und der Brechung $\bar{e} > ya$. In Eva Tichy, Dagmar S. Wodtko, and Britta Irslinger (eds.), *Indogermanisches Nomen: Derivation, Flexion und Ablaut*, 141–152. Bremen: Hempen.
- Oettinger, Norbert. 2009. Fälle von o -Stufe der Wurzel hysterokinetischer Nomina im Indogermanischen. In Rosemarie Lühr and Sabine Ziegler (eds.), *Protolanguage and Prehistory*, 340–347. Wiesbaden: Reichert.
- Olsen, Birgit Anette. 1999. *The Noun in Biblical Armenian: Origin and Word Formation, with Special Emphasis on the Indo-European Heritage*. Berlin/New York: de Gruyter.
- Pinault, Georges-Jean. 2000. Védique *dāmūnas-*, latin *dominus* et l’origine du suffixe de Hoffmann. *Bulletin de la Société de linguistique de Paris* 95:1.61–118.
- Rasmussen, Jens Elmegård. 1984 [1999]. Miscellaneous morphological problems in Indo-European languages 111: 12. Greek στόμα ‘mouth’, στωμύλος ‘talkative’. In *Selected Papers on Indo-European Languages* 1.146–149. Copenhagen: Museum Tusculanum.
- Rasmussen, Jens Elmegård. 1989. *Studien zur Morphophonemik der indogermanischen Grundsprache*. Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- Schwyzer, Eduard. 1939. *Griechische Grammatik* 1: *Allgemeiner Teil, Lautlehre, Wortbildung, Flexion*. Munich: Beck.
- Steriade, Donca. 2018. Quantitative rhythm and Saussure’s tribrach law. In David M. Goldstein, Stephanie W. Jamison, and Brent Vine (eds.), *Proceedings of the 28th Annual UCLA Indo-European Conference*, 231–265. Bremen: Hempen.
- Stüber, Karin. [1997] 2000. Urindogermanisch $^{*}h_1nóm-n$ ‘Name’, $^{*}h_2ónǵ-n$ ‘Salbe’ und der Ablaut der neutralen n -Stämme. *Die Sprache* 39.74–88.
- Tremblay, Xavier. 1996. Un nouveau type apophonique des noms suffixaux de l’indo-européen. *Bulletin de la Société de Linguistique de Paris* 91.97–145.

- van Beek, Lucien. 2016. The etymology of Greek πέπαι. In Bjarne Simmelkjær Sandgaard Hansen, Benedicte Nielsen Whitehead, Thomas Olander, and Birgit Anette Olsen (eds.), *Etymology and the European Lexicon*, 427–441. Wiesbaden: Reichert.
- Vine, Brent. 2011. Initial **mo-* in Latin and Italic. *Münchener Studien zur Sprachwissenschaft* 65, 261–286.
- Weiss, Michael. 2011. *Outline of the Historical and Comparative Grammar of Latin*. 2nd corrected printing. Ann Arbor/New York: Beech Stave.
- Weiss, Michael. 2016. ‘Sleep’ in Latin and Indo-European: on the non-verbal origin of Latin *sōpiō*. In Dieter Gunkel, Joshua T. Katz, Brent Vine, and Michael Weiss (eds.), *Sahasram Ati Srajas: Indo-Iranian and Indo-European Studies in Honor of Stephanie W. Jamison*, 470–485. Ann Arbor/New York: Beech Stave.
- Weiss, Michael. 2017. The paradigm of the word for ‘house, home’ in Old Irish and related issues. *Indogermanische Forschungen* 122, 61–82.
- Weninger, Claes. 1972. Indogermanisch **stomen-* ‘Mund’. *Die Sprache* 18, 24–33.
- Widmer, Paul. 2008. Drei griechische **-ōu-*Stämme. In Brigitte Huber, Marianne Volkart, and Paul Widmer (eds.), *Chomolangma, Demawend und Kasbek: Festschrift für Roland Bielmeier zum 65. Geburtstag*, 615–630. Halle: International Institute for Tibetan and Buddhist Studies.
- Yates, Anthony D. 2017. Lexical Accent in Cupeño, Hittite, and Indo-European. Ph.D. diss., University of California, Los Angeles.