

### Thematic and athematic present endings in Balto-Slavic and Indo-European

My reconstruction of the Proto-Indo-European primary (I, IV) and secondary (II, III) athematic (I, II) and thematic (III, IV) verbal endings is the following (Kortlandt 1979: 66-68 = 2009: 163-165):

	I	II	III	IV
1sg.	<i>-mi</i>	<i>-m</i>	<i>-om</i>	<i>-oH</i>
2sg.	<i>-si</i>	<i>-s</i>	<i>-es</i>	<i>-eH<sub>i</sub>i</i>
3sg.	<i>-ti</i>	<i>-t</i>	<i>-et</i>	<i>-e</i>
1pl.	<i>-mes</i>	<i>-me</i>	<i>-omo</i>	<i>-om(H)om</i>
2pl.	<i>-tH<sub>i</sub>e</i>	<i>-te</i>	<i>-ete</i>	<i>-etH<sub>i</sub>e</i>
3pl.	<i>-(e)nti</i>	<i>-(e)nt</i>	<i>-ont</i>	<i>-o</i>

The corresponding Balto-Slavic endings which can be reconstructed on the basis of the daughter languages are the following (cf. Kortlandt 1979: 56-66 = 2009: 155-162):

	I	II	III	IV
1sg.	<i>-mi</i>	<i>-in</i>	<i>-un</i>	<i>-oʔ</i>
2sg.	<i>-si</i>	<i>-s</i>	<i>-es</i>	<i>-eʔi</i>
3sg.	<i>-ti</i>	<i>-∅</i>	<i>-e</i>	<i>-e</i>
1pl.	<i>-mos</i>	<i>-me</i>	<i>-omo</i>	<i>-omun</i>
2pl.	<i>-te</i>	<i>-te</i>	<i>-ete</i>	<i>-ete</i>
3pl.	<i>-enti</i>	<i>-en</i>	<i>-on</i>	<i>-o</i>

1st sg. *\*-mi* has been preserved in Slavic *-mb*, Lith. *-mì* (with an acute from the 2nd sg. ending), and OPr. *asmu* ‘I am’ (with added *\*-oʔ* from the thematic present), *asmai* (with added *\*-oʔ-i*). The ending *\*-oʔ* has been preserved in Lith. *-ù, -úo-*, OPr. *-a* (cf. Kortlandt 2009: 307), and Slavic *-∅* (with an added nasal). The secondary endings have been preserved in the Lith. future *-siu* (with *\*-oʔ* replacing the final nasal) and the Slavic aorist *-∅*.

2nd sg. *\*-si* has been preserved in Old Slovene (Freising ms.) *vuez, zadenes, vzovues, prides*, Old Pannonian (Kiev ms.) *podasb*, with added *\*-eʔi* from the thematic present in Old Slovene *iezi, postedisi*, Old Pannonian *esi, veseliši, sčtvoriši*, also Lith. *-si*, OPr. thematic *-si* and athematic *-sei* (cf. Kortlandt 2009: 307). The ending *\*-eʔi* has been preserved in Lith. *-ì, -íe-*, and in OPr. *-s-ei* and Slavic *-s-i*. The secondary endings have been preserved in the OPr. imperative *-s* (cf. Kortlandt 2009: 15-17) and the Slavic thematic aorist *-e*.

3rd sg. *\*-ti* has been preserved in Slavic *-tb*, Lith. and OPr. *-t(i)*. The ending *\*-e* has been preserved in the thematic present in Old Russian and in Ukrainian (cf. Kortlandt 2009: 158) and probably elsewhere before the addition of pronominal *-t∅* (cf. Fortunatov 1908), and in the Slavic thematic aorist. In Baltic, *\*-e* was retracted to *-a* after *\*-j-* and the new timbre was generalized in the paradigm (cf. Schmalstieg

1958). The secondary zero ending is found in the Baltic preterit and the Slavic sigmatic aorist.

1st pl. *\*-mos* is found as *-mo* in Ukrainian and western South Slavic and in Old Prussian *-mai* (with *-i* replacing *\*-s*). The ending *\*-omun* is found as *-(e/o)m̃* in Russian, West Slavic and eastern South Slavic. The secondary endings are found in the aorist in Old Czech *-me*, *-ome*, Čakavian *-omo* (cf. Vaillant 1966: 60f.). A new present ending *-me* was created on the analogy of 2nd pl. *-te* in Bulgarian, and also in East Baltic, where it adopted the acute of the singular endings.

2nd pl. *\*-te* has been preserved everywhere in Slavic and adopted the acute of the singular in Baltic, where it is found as *-te* in Lithuanian and *-ti* in Old Prussian. We find a new athematic ending *-tai* on the analogy of 1st pl. *-mai* in OPr. *astai* and *wirstai* and an imperative ending *-tei* on the analogy of the optative ending *-sei* (cf. Kortlandt 2009: 308).

3rd pl. *\*-enti* has been preserved in Slavic *-ętv*. The ending *\*-o* has been preserved in Baltic *-a* and in Slavic *-qtb* (with added *\*-nti* from the athematic present). The secondary endings have been preserved in the Slavic aorist *-ę* and *-q*.

While the original primary thematic endings (IV) were preserved quite well in Balto-Slavic, they were often replaced by the corresponding athematic endings (I) following the thematic vowel *\*-e/o-* in the other Indo-European languages, as happened in Slavic 3rd pl. *-qtb* < *\*-o-nti*, thus bringing them into line with the secondary endings (II, III). It is therefore interesting to have a look at the primary thematic endings which were not replaced by the athematic present endings in the other languages. I shall not take account of the Anatolian languages, where the thematic present merged with the perfect into the *hi*-conjugation and the athematic present is continued as the *mi*-conjugation (cf. Pedersen 1938: 80, Kortlandt 2010: 373-382). In Indo-Iranian, the primary thematic endings were preserved better in the subjunctive than in the present indicative (cf. Beekes 1981), and the same holds for Armenian (cf. Kortlandt 2003: 34-38). This is in agreement with Kuryłowicz's observation (1964: 137-139) that the thematic subjunctive developed from an indeterminate present indicative (cf. already Renou 1932). The converse development (Dunkel 1998) cannot be maintained. For the Celtic and Tocharian evidence I refer to my earlier studies (2007, 2014a).

1st sg. *\*-oH* in Vedic *-ā(nī)*, Gathic *-ā(nī)*, Armenian aor. subj. *-ic'* (with a zero ending), Greek *-ω*, Gothic *-a*, Old High German *-u*, Latin *-ō*, Umbrian *sestu* 'put', Old Irish *-biur*, *biru* 'carry', Tocharian B *-u*, all < *\*-ō*.

2nd sg. *\*-eH,i* in Vedic *-as* (with secondary *-s*), Greek *-εις* (with added *-s*), Umbrian *seste*, Old Irish *-bir*, *biri*, Tocharian AB *-t* (with enclitic *\*tu* after a zero ending).

3rd sg. *\*-e* in Vedic *-at* (with added *-t*), Gathic *-at̃* (idem), Greek *-ει* (with added *-i*), Old Latin future *esed* 'will be' (with added *-d*), Umbrian *heri* 'wants' (with apocope), Old Irish *-beir*, rel. *beres* (with enclitic *\*so*), Tocharian A *-š*, B *-ṃ* (enclitics after a zero ending).

1st pl. *\*-omom* in Vedic *-āma* (with loss of the final nasal), Gathic *-āma* (idem), Armenian aor. subj. *-c'uk'* (with added *\*-s* from the athematic ending), Greek *-ομεν* (with *-e-* from the athematic ending *-μες*), Latin *-umus* (with *-s* from the athematic ending), Old Irish *-beram*, rel. *bermae* < *\*-omos*.

3rd pl. \*-o in Vedic *-an* (with added \*-nt), Gathic *-ən* (idem), Old Irish *-berat*, rel. *bertae* < \*-ont (idem), Tocharian B *-em* (idem), Tocharian A *-e* < \*-o before an umlauting clitic.

What was the meaning of the thematic vowel \*-e/o- in Proto-Indo-European? As Louis Renou pointed out in a brilliant but largely neglected study (1932: 15), the original meaning of the thematic present is best preserved in those cases where the athematic stem does not constitute an indicative paradigm. Here we find that in Vedic “une forme telle que *karati*, que rien ne rattache à un thème special, possède une valeur trouble, mi-réelle mi-modale, et telle qu’il serait vain de restituer un *karati* indicatif à côté d’un *karati* subjonctif”. The stem *kara-* is attested 75 times in the Rgveda, “en majorité subjonctif, mais subjonctif indéterminé, éventuel, plutôt que modal”, without regard to the presence of either primary or secondary endings. Renou concludes that the Vedic subjunctive was originally an independent formation, characterized by the mere presence of the thematic vowel, with a semi-modal value which could develop either into the historical subjunctive or into the inexpressive and aspectually indeterminate indicative of the first present class. Since the development into a subjunctive in Vedic takes place almost before our eyes, we must reconstruct an indeterminate present indicative for the proto-language.

The fundamental difference between the thematic and the athematic present endings can be explained by an original syntactic difference which is reflected in the case endings (cf. Uhlenbeck 1901, Pedersen 1907: 148-157, Kortlandt 2010: 39-45). Holger Pedersen presumed (1933: 311-315, 1938: 80-86) that the athematic paradigm was predominantly transitive and had a subject in the ergative (sigmatic nominative) case and an object in the absolutive whereas the thematic present and the perfect were predominantly intransitive and had the subject in the absolutive (asigmatic nominative) case. The similarity between the 1st sg. endings \*-oH of the thematic present and \*-H<sub>2</sub>e of the perfect has given rise to a highly speculative theory which derives the former paradigm from the latter (Watkins 1969, followed by Jasanoff 1998, 2003). This theory goes far beyond the comparative method and requires a host of unsupported supplementary presuppositions.

A major step toward a solution of the problem of the thematic flexion was made by Johannes Knobloch (1953), who identified the thematic vowel \*-e/o- with an object marker. Unfortunately, he assumed an ergative construction for the thematic present and the perfect but not for the aorist, which is contrary to expectation. Retaining Pedersen’s view that the secondary endings \*-m, \*-s, \*-t referred to the ergative subject of a transitive verb, I have adopted Knobloch’s theory that the thematic vowel \*-e/o- referred to an object in the absolutive case with the modification that the thematic present and the perfect had a dative subject, as in English *me dreamed a strange dream* or in German *mir träumt* for *ich träume*, cf. Georgian *dedas uq’vars švili* ‘the mother loves the child’, where the subject is in the dative and the object in the nominative case (Kortlandt 1983b = 2010: 91-103). When the ergative construction was lost and the absolutive became a nominative, the dative subject became an indirect object in an intransitive construction.

The theory advocated here also explains the correlation between the thematic flexion and the middle voice, as opposed to an athematic active paradigm, in the oldest Indo-European material (cf. Thieme 1929: 53, Renou 1932: 21<sup>1</sup>). Consider the following Bulgarian examples:

*spj-a* ‘I sleep’  
*spi mi se* ‘I am sleepy’

In the first example the stem is followed by the 1st sg. ending *-a*. In the second it is followed by the zero 3rd sg. ending, the enclitic 1st sg. dative pronoun, and the reflexive particle. The structure of these forms is immediately comparable with that of Vedic *ádmi* ‘I eat’, where *-mi* is the 1st sg. subject marker, and Greek *ἔδομαι* ‘I will eat’, where the root is followed by the thematic vowel *-o-*, the 1st sg. marker *-m-*, and the middle voice marker *-ai*. While the Bulgarian case shows how the subjunctive can have originated from a type of objective flexion, the non-volitional variant which underlies Vedic *bhárati* is found in Polish. In this language, where the translation of the above examples is *śpię* and *chce mi się spać* (same syntactic construction with 3rd sg. *chce* ‘wants’ and infinitive *spać* ‘to sleep’), the “objective” construction is found in such instances as *spalo mi się bardzo smacznie*, which is practically equivalent to *spalem bardzo smacznie* ‘I slept very soundly’.

Without taking the semantics of the thematic flexion into consideration, Warren Cowgill has forcefully defended (1985a) the traditional view that apart from the 1st sg. ending *\*-ō*, the thematic endings were identical with the athematic endings preceded by the thematic vowel *\*-e/o-* in Proto-Indo-European. The main device to bridge the gap between the two sets of endings is an irregular apocope of *\*-i* which eliminated the difference between primary and secondary endings in the separate languages. He does not discuss the Indo-Iranian subjunctive, where we find in Vedic the primary 1st sg. ending *-ā* beside the secondary 1st pl. ending *-āma*, also 1st dual *-āva*, the secondary 2nd sg. ending *-as* beside the primary 2nd pl. ending *-atha*, also 2nd dual *-athas*, and the secondary endings 3rd sg. *-at* and 3rd pl. *-an*, but primary 3rd dual *-atas*. We find the same distribution in Gathic (cf. Beekes 1981): 1st sg. *-ā* (10×) beside *-ānī* (6×), 1st pl. secondary *-āma* (4×), 2nd pl. primary *-aθā* (2×), 3rd sg. secondary *-aṭ* (54×) beside primary *-aitī* (19×), 3rd pl. secondary *-ən* (11×) beside primary *-əntī* (6×), including variants of the pre-desinential vowel. This peculiar distribution remains unexplained in Cowgill’s theory.

In order to explain Greek 2nd sg. *-εις*, also *-ες* (cf. Buck 1955: 111), and 3rd sg. *-ει*, Cowgill introduces an *ad hoc* sound law for the loss of *\*-t-* between posttonic short vowels in the alleged ending *\*-eti*, in spite of such counter-examples as *πέρυσσι* ‘last year’ < *\*-uti* which require a further limitation of the law. He assumes that the East Greek 1st pl. ending *-μεν* is the original secondary ending beside the primary ending *-μες* which is preserved in West Greek. Moreover, he assumes that *-μες* replaces an original primary ending *\*-mos* and does not explain the final nasal of the ending *-μεν*, which is not found elsewhere. He discounts the Armenian evidence because this language “is generally too obscure to be good evidence for a PIE contrast that is supported by none of the trusty trio Hittite, Sanskrit, Greek” (1985a: 105) and effectively treats Balto-Slavic the same way because of its late attestation, in spite of the fact that “this branch is the richest in problematic endings which might suggest a difference in PIE between thematic and athematic endings” (*ibidem*). The main point to be taken into consideration is that the rich and heterogeneous material of this branch allows a reconstruction of Balto-Slavic which is on the same level as that of Indo-Iranian and Greek.

Cowgill does not mention Umbrian 2nd sg. *seste* < *\*-ei*, 3rd sg. *heri* < *\*-ie*, Old Latin 3rd sg. future *esed* (with added *-d*), which cannot reflect *\*-esi*, *\*-eti*. Following

Thurneysen (1897), Cowgill derives the difference between absolute and conjunct verb forms in Old Irish from the presence versus absence of an enclitic particle *\*(e)s*. I am convinced that this was an original focus particle *\*est* ‘it is (the case that)’, like French *c’est que* (cf. especially Kortlandt 2007: 92). In combination with an irregular loss of final *\*-i* in primary verb forms (Cowgill 1985b: 109), this hypothesis should yield the correct absolute and conjunct paradigms in Insular Celtic. However, this does not work because his early loss of *\*-i* affected the 3rd sg. but not the 3rd pl. relative forms (cf. already Cowgill 1975: 59) and does not account for the 2nd sg. forms (cf. Kortlandt 2007: 3). It allegedly affected the 3rd sg. and 3rd pl. conjunct forms but not the corresponding absolute forms (Cowgill 1975: 57 and 59). This amounts to saying that the absolute form continues the primary ending and the conjunct form the secondary ending in third person verb forms. The difficulties in Cowgill’s theory can be eliminated by returning to Meillet’s view (1907) that the difference between the absolute and conjunct endings partly reflects the distinction between the athematic and the thematic flexion of the proto-language (cf. Kortlandt 2007: 7-19).

After the phonetic loss of final *\*-e* after a long vowel in the 3rd sg. conjunct form of weak verbs at stage (6) of my chronology (2007: 9), e.g. in *-marba* ‘kills’ < *\*-ā* < *\*-āe* < *\*-āie* and *-rádi* ‘speaks’ < *\*-ī* < *\*-īe* < *\*-īie*, we have abs. *\*-āeh*, *\*-īeh* < *-e-s* and conj. *\*-ā*, *\*-ī* beside athematic abs. *\*-aθih*, *\*-iθih* < *\*-ti-s* and conj. *\*-aθi*, *\*-iθi*, e.g. in *benaid* ‘strikes’, *gaibid* ‘takes’ (cf. Kortlandt 2007: 135). Now final *\*-θi* in the conjunct form was eliminated on the analogy of the weak verbs and later, after the shortening of long vowels in medial syllables at stage (10) of my chronology (2007: 13), the absolute ending *\*-θih* of the athematic verb classes spread to the weak verbs for differentiation of the present indicative from the preterit and the subjunctive, and eventually to the simple thematic verbs such as *berid* ‘carries’. I do not understand Cowgill’s objection (1985b: 117) that “such a leveling, with one form from athem. paradigm and one from them., makes no sense” because the earlier development was a generalization of the zero ending of weak verbs in the athematic paradigm and the later development was a generalization of the ending *\*-θih* as a present marker. There was no interaction between absolute and conjunct endings here. Cowgill also objects (1985b: 110) that “some Old Irish thematic 3rd sg. conjunct presents of roots ending in dental stops actually contain a relic of the *\*t* of the ending *\*-et(i)*”, e.g. *tadbat* ‘shows’, allegedly from *\*t-ad-wēd-e-t*, for which he assumes an additional irregular loss of the thematic vowel. Following Thurneysen (1946: 377) I rather assume that the athematic conjunct ending of *-tét* ‘goes’, prototonic *-tet*, spread to the semantically close verbs *-fet* ‘leads’, *-rét* ‘rides, drives’, *\*-ret* ‘runs’, prototonic *-at*, *-rat*, and then to other verbs with a root-final dental stop such as *ad-fét*, *-adbat* ‘relates’, *ar-nëat*, *-airnet* ‘expects, sustains’ (cf. Kortlandt 2007: 96). Cowgill’s theory does not explain the alternative forms *-feid*, *-réid*, *-reith* beside *-fet*, *-rét*, *-fét* (cf. also Meid 1972: 350).

In Tocharian, Cowgill assumes (1985a: 105) “that PIE *\*-esi*, *\*-eti* would likewise early become *\*-es*, *\*-et*, by loss of final *\*-i* in words of three or more syllables, and then the final *\*-s* and *\*-t* would themselves be lost”, so as to leave no trace of the athematic endings. He compares the 3rd pl. athematic endings of B *nesäm* ‘they are’ and A *tränki*, *tränkiñc* ‘they say’ with the words for ‘twenty’, B *ikäm* and A *wiki*, regarding them “as the regular outcomes of PIE *\*-ṇti*” and claiming *-ñc* (which is the expected reflex of *\*-nti*) to be “a further pronominal or other element”. He suggests (1985a: 104) “that B 3rd pl. athem. *-äm*, them. *-em* represent the Proto-Tocharian outcomes of PIE *\*-ṇti*, *\*-onti*, in which the final *\*-i* has disappeared without trace and the *\*-t-* has left an

indirect reflex only in preventing the loss of the preceding nasal”  $*-n$ , which in Tocharian A developed into  $*-j$ , resulting in  $*-äj$ ,  $*-aj$ , whence athematic  $-i$  and thematic  $-e$ . I rather think that the endings A  $-iñc < *-enti$ ,  $-eñc < *-onti$ , B  $-m̄ < *-ent$ ,  $-em̄ < *-ont$  are regular and that A  $-i$  (5×) is analogical after the archaic ending  $-e$  (21×), which represents the Proto-Indo-European thematic 3rd pl. ending  $*-o$  (cf. Kortlandt 2014a). For the word for ‘twenty’ B  $ikäm̄ < *wiknt$  I assume that PIE  $*duidkmti$  lost its  $*-i$  on the analogy of  $*dekm̄t$  ‘ten’ and  $*triH_2dkomt$  ‘thirty’ and that the ending of A  $wiki$  originated as a copy from the particle  $-pi$  in such instances as  $wiki šapi$  ‘twenty-one’ (Kortlandt 2010: 157).

Cowgill does not discuss the distribution of the Slavic 3rd sg. endings  $-tb$ ,  $-tḡ$  and zero and proposes another precocious loss of final  $-i$  in words of three or more syllables. In fact, the system with 3rd sg.  $-e$  beside  $-itb$  is rather widespread in Old Russian and Ukrainian (cf. Kortlandt 2009: 158). In Baltic, too, Cowgill assumes an early loss of final  $*-i$  in words of three or more syllables. My reconstruction of an original primary thematic 3rd pl. ending  $*-o$  which is reflected as  $-a$  in Baltic does not go “against the evidence of all the other nine branches of Indo-European, plus Slavic” (thus Cowgill 1985a: 106) but is supported by the archaic Tocharian A ending  $-e$  and by the addition of secondary rather than primary athematic endings in Indo-Iranian, Celtic and Tocharian B (cf. Kortlandt 2009: 162). Cowgill’s idea (*ibidem*) that the original 3rd pl. form of both thematic and athematic presents “is preserved in the nominative plural masculine in  $-q$ ,  $-j$ ,  $-ę$  of Lithuanian active participles” cannot be correct because the latter has a different ablaut grade in Daukša’s Postille (cf. Kortlandt 2009: 299).

In the case of the 2nd sg. endings, Cowgill does not discuss the distribution in the oldest Slavic texts, the Freising Fragments and the Kiev Leaflets, where we find  $-si$  (2×) in FF  $iezi$  and KL  $esi$  ‘you are’,  $-sb$  (2×) in FF  $vuez$  ‘you know’ and KL  $podasb$  ‘you give’,  $-iši$  (3×) in FF  $postedisi$ , KL  $veseliši$ ,  $sḡtvoriši$ , and  $-ešb$  (3×) in FF  $zadenes$ ,  $vzovues$ ,  $prides$  (cf. Kortlandt 2009: 156). This distribution suggests that the thematic ending  $*-eṛi$  spread to the copula  $*eseṛi$  before it was replaced by  $*-eši$  on the analogy of the athematic flexion, which has left a trace in  $*mošb$  ‘you can’  $< *mog-šb$  in West and South Slavic (Vaillant 1966: 165). The ending of  $*eseṛi$  then spread to the  $i$ -flexion  $-iši < *-eišeṛi$  on the analogy of 3rd sg.  $*esti$ ,  $*-eiti$ . The original athematic ending  $*-si$  was preserved as  $-sb$  in FF and KL but replaced by  $-si < *-seṛi$  in Old Church Slavic  $věsi$ ,  $dasi$ . The spread of the thematic ending  $*-eṛi$  to the copula  $*eseṛi$  was evidently a Balto-Slavic development in view of Lith.  $esi$  and Prussian  $assei$  (cf. Kortlandt 2009: 307), where it spread to the athematic flexion, e.g.  $waisei$  ‘you know’,  $ēisei$  ‘you go’. The original athematic ending  $*-si$  spread to the thematic flexion in  $giwassī$  ‘you live’, as in Slavic  $živešb$ .

Cowgill posits (1985a: 107) a Baltic athematic ending  $*-sai$  instead of  $*-sei$ , referring to an article by Stang who maintains the opposite (1956: 138), and derives this ending as well as Slavic  $-si$  from a mediopassive ending  $*-soi$ . This is extremely unlikely because there is no trace of the Indo-European middle voice in Balto-Slavic. Moreover, Slavic  $-si$  cannot represent  $*-soi$  (cf. Kortlandt 1983a: 175-180). Cowgill also assumes “a normal Old Prussian development of  $*-ai$  to  $-u$  after labial” which cannot be maintained (cf. Kortlandt 2009: 191-193). He writes: “Prussian 1st pl.  $-mai$ , very frequent and never written  $-mu$ , must be  $*-mei$ , i.e. the old ending  $*-me$  plus  $-i$ ; its constant spelling is thus no evidence that an original  $-sai$  might not also be written  $-sei$  (and  $-s(s)e$ ) by the translators of the catechisms. And Prussian athematic 1st sg.  $-mai$ ,

*-mu* is evidently *\*-mai*, with the regular facultative change of *-ai* after labial to *-u*, and this *\*-mai* for PIE *\*-mi* is hard to explain except as modeled on a 2nd sg. *-sai*.” This is all wrong (cf. Kortlandt 2009: 307). The regular 1st sg. ending is *-a* < *\*-o?*. The form *asmu* (2×) is the phonetic reflex of *\*esmo?* and occurs beside *asmai* (10×) < *\*esmo?i*, with added *\*-i* from the other forms of the paradigm. The 1st pl. ending *-mai* (103×) < *\*-mo-i* has no variant spellings, which demonstrates the reliability of the Old Prussian orthography and disproves Cowgill’s theory. The 2nd pl. form *astai* is evidently modeled after 1st pl. *asmai* because elsewhere the 2nd pl. ending is *-ti* < *\*-te-?*, in the imperative also *-tei* on the analogy of the optative ending *-sei*. The 2nd sg. present ending is athematic *-sei* and thematic *-si* in accordance with the Slavic evidence.

Cowgill thinks that the regular Slavic outcome of PIE *\*-os* is *-b* (1985a: 107). This view can no longer be maintained (cf. Kortlandt 2014b: 8 and Nievergelt & Schaeken 2003). Slavic points to 1st pl. primary *\*-mo(s)*, *\*-omom* and secondary *\*-me*. The reconstruction of *\*-e-* in the PIE primary athematic ending *\*-mes* is based on Greek *-μεσ*, Old High German *-mēs*, Tocharian A *-mäs*, B *-m*, that of *\*-o-* in the thematic ending *\*-(o)mom* on Slavic *-mъ*, Prussian *-mai*, and Armenian *-uk*<sup>č</sup>. Cowgill assumes that West Greek *-μεσ* replaced an original primary ending *\*-mos* which is found in Italo-Celtic and Balto-Slavic and that East Greek *-μεν* represents the original secondary ending. This is at variance with the Germanic, Balto-Slavic, Armenian and Tocharian evidence while the Indo-Iranian and Italo-Celtic data are inconclusive.

In conclusion Cowgill even suggests (1985a: 108) that the 1st sg. primary thematic ending *\*-ō* may be “the regular outcome of the expected *\*\*-omi*, existing at some time in pre-Indo-European”. His theory exemplifies the “attempts to derive the attested data from a postulated system which is beyond what can be reconstructed by the comparative method, often under the assumption that the original system was more regular than what can actually be reconstructed” (Kortlandt 2014b: 5). It confirms the view that our reconstructions have a bias toward the languages on which they are primarily based (Cowgill’s “trustworthy trio Hittite, Sanskrit, Greek”). The history of linguistic reconstruction shows a gradual shift away from the principal languages (cf. Mayrhofer 1983).

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### Summary

While the original primary thematic endings were preserved quite well in Balto-Slavic, they were often replaced by the corresponding athematic endings following the thematic vowel *\*-e/o-* in the other Indo-European languages, thus bringing them into line with the secondary endings. Without taking the semantics of the thematic flexion into consideration, Warren Cowgill has forcefully defended the traditional view that apart from the 1st sg. ending *\*-ō*, the thematic endings were identical with the athematic endings preceded by the thematic vowel *\*-e/o-* in Proto-Indo-European. The main point to be taken into consideration is that the rich and heterogeneous material of Balto-Slavic allows a reconstruction which is on the same level as that of Indo-Iranian and Greek. It confirms the view that our reconstructions have a bias toward the languages on which they are primarily based (Cowgill's "trustworthy trio Hittite, Sanskrit, Greek"). The history of linguistic reconstruction shows a gradual shift away from the principal languages.