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A lonely monk? Armenian evidence for the pattern of Greek πατήρ : εὐ-πάτωρ

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Outline

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Introduction: compositional o-grade

- Ancient Greek famously shows an alternation for certain consonant-stem nouns between e-grade in the simplex and o-grade in the second member of compounds (hereafter “compositional o-grade suffix” or COS).
 - πατήρ ‘father’ : εὖ-πάτωρ ‘having a good/noble father’, ἄ-πάτωρ ‘fatherless’;
 - φρήν ‘midriff; mind, spirit’ : ἄ-φρων ‘mindless’, εὖ-φρων ‘cheerful, merry’.
- The same alternation is attested in Old Indo-Aryan:
nom. pl. *pitārah* ‘fathers’ (< *-er-): *tvāt-pitārah* ‘having you as father’ (< *-or-);
- and in Old Armenian: *anjn* ‘person’, pl. *anjink*‘ (< *-en-) : *mi-anjn* ‘monk’, pl. *mianjownk*‘ (< *-on-).



Compositional o-grade and PIE accent-ablaut classes

- The alternation in suffixal vowel between simplex and compound has been interpreted within the Erlangen Model (EM) of PIE accent and ablaut.
- PIE nominal stems could be derived not only by adding an overt suffix, but also by shifting the accent and ablaut paradigm, known as “internal derivation” (ID).
- The suffixal alternation of Gr. πατήρ : εὐ-πάτωρ would thus be an example of internal derivation of amphikinetic compounds from hystero-kinetic bases.

This was mentioned in passing by Schindler (1975:262–3 “[Der holokinetische Typ...findet sich...in Bahuvrīhis (Typus εὐπάτωρ usw.)”), but first made explicit by Widmer (2004:70). See Clackson 2007:75, Fortson 2009:137 (tentative), Steer 2013:189–90 (“the derivation of amphikinetic second compound members from hystero-kinetic bases was common practice”, citing ἄ-πάτωρ, *tvát-pitārah*, *mianjn*), 2015:13–4.



Compositional o-grade and amphikinetic inflection

- Kim (2013:89) includes this as an example of “default to amphikinetic”, whereby the unmarked outcome of ID to a base of any accentual type (acrostatic [AS], proterokinetic [PK], hystero-kinetic [HK]) is an amphikinetic [AK] paradigm. Cf.
 - AS sg. **wód-r̥* ~ **wéd-n-* ‘water’ (Hitt. *wātar*, instr. *wēdanda*) → AK coll. **wéd-ōr* ~ **ud-n-´* (Hitt. *witār*);
 - PK sg. **péh₂-wr̥* ~ **ph₂-wén-* ‘fire’ (Hitt. *paḥḥur*, gen. *paḥḥwenaš*) → AK coll. **péh₂-wōr* ~ **ph₂-un-´* (Toch. B *puwar*);
 - PK sg. neuter **´-mṇ* ~ **-mén-* → AK animate **´-mon-* (cf. Ved. *bráhma* ‘formulation, prayer’ : *brahmā* ‘formulator, priest’; Gr. *θῆμα* ‘tomb’ : *θημῶν* ‘heap’, *αἷμα* ‘blood’ : *ἀν-αίμων* ‘bloodless’).

For other examples, see Schindler 1975a, Nussbaum 1986:118–20, Widmer 2004:67–70, 113–5 and especially Steer 2013, 2015:11–22. On the EM in general, see Meier-Brügger 2010:336–53 with refs., Steer 2015: 3–9 and passim, Jasanoff 2017:20–3.



“Default to amphikinetic”

- This “default-to-amphikinetic” pattern may be understood within the compositional framework of Kiparsky (2010) and variations thereof, e.g. metrical grid theory (Kim 2013) or an approach in terms of Optimality Theory (e.g. Yates 2017).
- The underlying accentual specification of the base is erased in the compound by addition of a dominant unaccented zero derivational suffix.
- By the Basic Accentuation Principle (BAP), word stress is assigned to the leftmost accented vowel, otherwise to the leftmost syllable. Thus these forms surface with initial stress in the nom. and acc. (whose endings are unaccented), and ending stress in the oblique cases (whose endings are accented).

On the BAP, see Kiparsky and Halle 1977, Kiparsky 2010:137, 144; 2018:135 and the references in Kiparsky 2010:137fn.1. On the BAP and PIE accentuation in general, see Lundquist and Yates 2018:2121–33 with refs.



Problems with “default to amphikinetic”

- However, several aspects of the EM have recently been called into question.
- In a series of papers, Yates has challenged much of the basis for “default to amphikinetic”, e.g. with regard to the paradigm of ‘fire’ (Yates 2019b, 2021) and the ID of animates in **-mon-* from neuters in **-mṇ* (Yates 2019a, 2019c).
- Lundquist (2016, 2021:131–44) has demonstrated that *tvát-pitārah* and the few other such Vedic forms are almost certainly local neologisms of the Taittirīya school, thereby eliminating the Old Indo-Aryan evidence for COS.



Compositional o-grade: PIE, Greco-Armenian, or neither?

- This leaves only Greek and Armenian as languages attesting COS...which raises a number of questions.
 - Is the Armenian evidence in fact comparable to the Greek, i.e. does it support a PIE date for COS?
 - Or, given the longstanding claims of a close relationship between these two branches, is it possible that we are dealing not with an archaism, but a Greco-Armenian isogloss?
 - Or are the Armenian facts to be explained otherwise, leaving isolated the Greek pattern πατήρ → εὐ-πάτωρ?



Research questions for today

- After reviewing the history of research, this paper will pose and, it is hoped, at least begin to answer the following questions:
 - Is the contrast of *anjn* and *mianjn* actually comparable to that of Greek πατήρ and εὐπάτωρ, and if so, what exactly would this comparison mean for PIE?
 - What is the synchronic and diachronic status of the classic example *mianjn* within Armenian?
 - What do the Armenian *n*-stem inflectional paradigms go back to in PIE terms? Since the paradigms of *anjn* and *mianjn* differ only in the nom. and acc./loc. plural, what do those endings reflect in terms of the EM?
 - Does the attested distribution of *n*-stem inflectional paradigms in Old Armenian support a systematic inflectional shift from simplex to compound, or are the facts better explained in terms of other formal or semantic factors?



The Armenian monk: a century of loneliness

- The Armenian counterpart of Greek COS was first identified by Meillet (1898:274–5), who adduced the following examples (cited here in adjusted transcription):
 - *anjink* ‘persons’ *mi-anjownk* ‘monks’;
 - *azink* ‘peoples’ *skay-azownk* ‘who are of the race of giants’;
 - *diwc’-azownk* ‘who are of the race of gods, *ἡμίθεοι*’;
 - *t’agawor-azownk* ‘who are of the race of kings’.



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- He contrasted these compounds with others which show no change of suffix, and concluded of the former that “c’est par un véritable hasard qu’elles ont été conservées”, being “composés relativement usités”, in contrast to “composés formés librement par les écrivains” such as
 - *beřink* ‘loads’ *canr-a-beřink* ‘who have heavy loads’;
 - *lerink* ‘mountains’ *barjr-a-lerink* ‘which have high mountains’.
- This distribution thus speaks in favor of the great antiquity (“la haute antiquité”) of the first group.
- Meillet (1913:55) gives the same examples, but adds *datark-anjn* ‘lazy’ (i.e. ‘empty person’), pl. *datark-anjownk*’.



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- Meillet's first example, namely 'monk', soon became the *Paradebeispiel* of COS in Armenian and has been cited by itself in historical grammars for well over a century.
- Meillet (1903a:54, 1936:79): "Le type *-in-k' -h̄n-p* de *anjink' w̄ndh̄np* «personnes» représente *-en-es, cf. gr. (ποιμ-)έν-ες; le type *-un-k'* de *mianjunk' w̄hw̄ndn̄np* représente *-on-es, gr. -ον-ες; l'opposition du simple *anjink' w̄ndh̄np* et du composé *mianjunk' w̄hw̄ndn̄n̄* reproduit celle de gr. φρένες: ἄφρονες." Cf. also Meillet 1903b:143.
- Jensen (1959:66–7) gives as examples *mianjownk'* 'monks', *vahanjownk'* 'high-minded', *diwc'aznownk'* 'heroes', *mecaberownk'* 'having a great load', but notes that "[i]n anderen Fällen findet dieser Übergang nicht statt", citing *barjralerink'* 'having high mountains', *canraberink'* 'having a heavy load'.



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- Tumanjan (1978:68): “The vowel o is usual in the second part of a compound: cf. Gr. ἄ-φρων, -ονες ‘foolishness’: φρήν, -ενες, Arm. *ւփ-ւնւնւ-ք* mi-anjun-k’ ‘hermits’ from *ւնւնւ-ք* anjin-k’ ‘persons’.”
- Schmitt (1981 [2007]:44): “Flexionstyp *anjn* ‘Person’, Nom. Plur. *anjink’* vs. Kompositum *mi-anjn* ‘Mönch’, Nom. Plur. *mianjownk’*: die Pluralform des Simplex ist auf idg. *-en-es, die des Kompositums auf idg. *-on-es zurückzuführen (vgl. gr. φρένες : ἄ-φρονες)” as an example of “Reste des idg. Ablauts”; sim. op. cit. 102, 110.
- Džaukjan (1982:109): “words with a stem in *-in-* in the nom. pl. may cross over to stems in *-un-* when making up the second component of a compound: *anjn* ‘individual, person’, pl. *anjink’* but *mianjn* ‘monk, hermit’, pl. *mianjunk’*.”
- Hamp (1988:19) just gives the forms *anjink’*, *mi-anjunk’* and posits a rule converting “*anjin-* ⇒ *-anjun-*, etc.”



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- Olsen (1999): “the archaic distribution between hysterodynamic and proterodynamic is preserved in some cases of simplex vs. compound, thus simplex *anjn*, *anjink* ‘person, self’ vs. compound *-anjownk*” (119); “[t]he compound *datarkanjn*, *-ownk* ‘idle’ vs. *anjn*, *-in* even exhibits the same contrast between simplex **-én-* vs. compositional **-on-* as observed in Gk. φρήν vs. ἄφρων” (832–3).
- Matzinger (2005:20): “Desgleichen zeigt sich ein Reflex des alten Ablauts bei den *n*-Stämmen in den Fällen, wo sich das Simplex und das Kompositum gegenüberstehen, wie im Falle der Pluralbildungen von Sg. *anjn* ‘Person’: Pl. *anjink* < idg. **-en-es* aber Sg. *mianjn* ‘Mönch’: Pl. *mianjownk* < idg. **-on-es* (vgl. das bekannte Schema von gr. Sg. φρήν: Pl. φρένες aber Sg. ἄφρων: Pl. ἄφρονες).”
- Clackson (2017:1126): “Inherited vowel alternations can also be found preserved in isolated suffixed formations, as in the well-known example of *anjn* ‘person, self’ nominative plural *anjink*’, compound *mianjn* ‘monk’, nominative plural *mianjownk*’, reflecting an Indo-European distinction between *e-* and *o-*grade.”



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- Kölligan (2019:189): “de[r] Normaltyp der *n*-stämmigen Pluralbildung bei Komposita...vgl. etwa arm. *mianjn* ‘Mönch’, Pl. *mianjownk’*.”
- Martirosyan (2019:M 210B.2): “Some nouns of Subtype A (*in-in-an*) change to B (*in-un-an*) in compounds. This implies that they normally (as a simplex) have nom.pl. *-in-k’*, but in compounds display *-un-k’*. The plural forms *-in-k’* (in the simplex) and *-un-k’* (in the composite) go back to IE **-en-es* and **-on-es*, respectively, cf. Gr. *φρένες* : *ἄ-φρονες*. Note, for instance, the paradigms of *anjn* ‘person, ipse; soul, spirit; body’ (Bible, etc.) and *mianjn* ‘monk’, lit. ‘qui est une personne seule’ (Elišē, Ephrem, Paterica, etc.).”
- Lundquist (2021:151): “the best parallel comes from Armenian *n*-stems, which reflect a change to *o*-grade; note especially Arm. *anjn*, pl. *anjn-k’* (< **-in-* < **-en-es*) ‘person’ beside the compound *mi-anjn*, pl. *mianjunk’* (< **-un-* < **-on-es*) ‘monk, one-person’.”



Greek εὐ-πάτωρ and Armenian *mi-anjn*: a valid comparison?

- The comparison of Greek εὐ-πάτωρ and Armenian *mi-anjn* has thus reached nearly universal acceptance in Armenian historical linguistics and more generally among Indo-Europeanists.
- Yet the parallel is far from exact, for at least two reasons.



Armenian *mi-anjn* vs. Greek εὐ-πάτωρ

1. The inflection of *mianjn* differs from that of *anjn* **only** in the nominative and accusative/locative plural. In all remaining forms they are identical, including gen./dat./loc. sg. *anjn* : *mianjn* with *-in* < PIE **-en-* and gen./dat./abl. pl. *anjanc'* : *mianjanc'* with *-an-* < PIE **-n-*.

	sg.	pl.	sg.	pl.
nom.	<i>anjn</i>	<i>anjink'</i>	<i>mianjn</i>	<i>mianjownk'</i>
acc.	<i>anjn</i>	<i>anjins</i>	<i>mianjn</i>	<i>mianjowns</i>
gen.	<i>anjn</i>	<i>anjanc'</i>	<i>mianjn</i>	<i>mianjanc'</i>
dat.	<i>anjn</i>	<i>anjanc'</i>	<i>mianjn</i>	<i>mianjanc'</i>
abl.	<i>anjnē</i>	<i>anjanc'</i>	<i>mianjnē</i>	<i>mianjanc'</i>
loc.	<i>anjn</i>	<i>anjins</i>	<i>mianjn</i>	<i>mianjowns</i>
instr.	<i>anjamb</i>	<i>anjambk'</i>	<i>mianjamb</i>	<i>mianjamb</i>

In contrast, Gr. εὐπάτωρ shows consistent o-grade of the suffix: acc. sg. εὐπάτορα, gen. εὐπάτορος, etc.



Armenian *mi-anjn* vs. Greek εὐ-πάτωρ

2. COS in Greek is mainly found with *r*-stem kinship terms, whereas in Armenian it is restricted to *n*-stems. There is no equivalent in Armenian to the Greek type in -ωρ, gen. -ορος, i.e. no *r*-stem inflection with nom. pl. †-ork' < PIE *-or-, much less any pattern of alternation with simplex kinship terms such as *hayr* 'father', pl. *hark'* < **pateres* < PIE **ph₂tér-es*.

It is true that the changes affecting intervocalic *-t-, including loss and contraction of vowels in resulting hiatus, would have significantly obscured the contrasts of suffixal vowels in Armenian reflexes of PIE formations in *-tVr-, as they did in the kinship terms. Nevertheless, it is noteworthy that no trace of o-grade suffix survives in the inflection of OA *r*-stems.



Greek εὐ-πάτωρ and Armenian *mi-anjn*: a common source?

- Thus in order to project the Greek and Armenian inflections to a common starting point, we would have to assume that
 - a. Greek generalized *o*-grade in εὐπάτωρ from the strong cases (nom., acc., voc.), or Armenian introduced zero grade into the weak cases of *mianjn* from *anjn*;
 - b. Arm. nom./acc. sg. *mianjn* goes back to a pre-Arm. nom. sg. in **-ōn*, whereas *anjn* goes back to pre-Arm. nom. sg. **-ēn*; and
 - c. the morphological pattern whereby suffixal **-e-* was replaced by **-o-* in the second member of compounds survived in Greek only in the *r*-stem kinship terms (πατήρ, μήτηρ, φράτηρ, plus ἄνῆρ ‘man’) and φρήν, and in Armenian only in certain *n*-stems.



Greek εὐ-πάτωρ and Armenian *mi-anjn*: a common source?

- Of these three conditions, (a) is the least problematic, since
 - most *r*- and *n*-stems have leveled suffixal vocalism in Greek (e.g. δοτήρ, gen. δοτήρως ‘giver’, δώτωρ, gen. δώτορος ‘id.’, γνώμων, gen. γνώμωνος ‘one that knows, indicator’, θυμῶν, gen. θυμῶνος ‘heap’, etc. etc.), and
 - the various inherited *n*-stem paradigms have extensively influenced each other in Armenian under any analysis.



Greek εὐ-πάτωρ and Armenian *mi-anjn*: a common source?

- But (b), though entirely possible, is unprovable, and (c) invites suspicion.
- Not only are there **no** partial Greek-Armenian word equations along the lines of the long-cited Gr. (εὐ-)πάτορες ~ Ved. (*tvát-*) *pitārah*, but the groups of nouns affected by the suffixal alternation in the two languages do not even overlap!

As for φρήν with its compounds ἄφρων, εὐφρων, δύσφρων ‘sad at heart’, πρόφρων ‘with forward mind, of one’s own will’, σώφρων ‘of sound mind’, etc., the etymology of φρήν remains uncertain. See Frisk 1960–72 II:1042–3, Beekes 2010:1591. Interesting but not unproblematic is the derivation from **b^hreǵ^h-n-* by Puhvel (1999:74), comparing φράγμα ‘fence, partition’ and the parallel of σπλήν ‘spleen’ ~ σπλάγχνα ‘womb’; see van Beek 2013:295fn.1168.

On the etymology of Arm. *anjn* (< **Hnǵ^hen-*, cf. ON *angi* ‘breath’; ultimately from PIE **h₂enh₁-* ‘breathe’?), see *HAB* I 203–4, Olsen 1999:120, Martirosyan 2010:94 and now Kölligan 2021 (to PIE **h₂emǵ^h-* ‘narrow’).



Beyond Greek and Armenian

- Even if the comparison of the Greek and Armenian patterns could be upheld, what consequences would this hold for the accentual reconstruction of PIE?
- In the EM, suffixal *o*-grade has long been understood as probative of original amphikinetic inflection. But what does that mean in the case of compounds with COS such as εὐπάτωρ or *mianjn*? What would an amphikinetically inflecting compound have looked like?
- Steer (2015:13) questions an interpretation of COS in terms of accent and ablaut paradigms:

“Der *e/o*-Ablaut, der sich im Suffix des Kompositionshinterglieds vollzog (z.B. gr. πα-τήρ ⇒ ἄ-πά-τωρ), darf nun meines Erachtens nicht ausschließlich im Kontext eines Flexionsklassenwechsels bei interner Derivation gesehen werden. Es handelt sich vielmehr um einen Kompositionsablaut, wie sich auch an Beispielen aus weiteren Sprachen demonstrieren lässt.”



Beyond Greek and Armenian

- In the latest investigation of the problem, Lundquist (2021:162–3) concludes:
“As far as the amphikinetic reconstruction goes, I have not found more evidence for it than “the forms have an O,” and I have deemed this insufficient...on which to reconstruct the accent and ablaut alternations defining an amphikinetic paradigm.... [N]either the Greek nor the Vedic accents need reflect such accentual mobility; the accents, Vedic first member and Greek recessive, largely speak against it.”

For details, see the discussion in Lundquist (2021:154–62). Note that e.g. Weiss (2020:282) reconstructs $*\eta\text{-}p(e)h_2\text{-}t\bar{o}r > \acute{\alpha}\text{-}\pi\acute{\alpha}\tau\omega\rho$ but “pre-PIE $**h_1su\text{-}ph_2tors$ ” as the preform of $\epsilon\acute{\upsilon}\text{-}\pi\acute{\alpha}\tau\omega\rho$.



Is *mianjn* old or new?

- Before turning to an examination of *n*-stem inflection in Armenian, a note on the *Paradebeispiel mianjn* ‘monk’ is in order.
- Recall that Meillet (1898:275) deduced “la haute antiquité” of *mianjn* and compounds of *azn* ‘people’, which show COS in contrast to “composés formés librement.”



Is *mianjn* old or new?

- Yet *azn* is a loanword from Middle Iranian (cf. ManMP 'zn 'noble'), hence probably dates from the period of Parthian domination in the early centuries AD.
- As for 'monk', the formation 'one-person', i.e. 'person (living) alone' is clearly inspired by Gr. μόναχος, μοναστήριον, etc. and thus unlikely to predate the introduction of Christianity in the early 4th c. AD.



Is *mianjn* old or new?

- On formal grounds as well, *mianjn* must be a relatively recent creation.
- Pre-Arm. sequences **Cia* regularly became **Ce_a* (the falling diphthong /ea/), as in
 - instr. sg. *tareaw*, gen./dat./abl. pl. *tareac'* < **tari-aw*, **tari-ac'* (to *tari* 'year');
 - aor. *erkeay* 'feared', *caneay* 'knew' < **erki-a-*, **cani-a-* (parallel to *erdoway* 'feared' < **erdu-a-*);

and, with regular weakening of pretonic **ia* > **e_a* to *e*,

- *ginetown* < **gine_atun* < **gini-a-tun* 'wine-house';
- *erkeriwr* < **erke_ariwr* < **erki-(h)ariwr* 'two hundred';
- *merjenam* < **merje_anam* < **merji-a-nam* 'approach' (to *merj* 'near' < **merji* < PIE **mé(s)-ĝ^hsri*, cf. Gr. μέχρι 'as far as').



Is *mianjn* old or new?

- Compounds of *mi-* ‘one’ such as *mi-ak* ‘unity’, *mi-ayn* ‘only’, *mi-anjn* ‘monk’, *mi-a-ban* ‘with one voice’, *mi-a-jayn* ‘unanimous’ give the impression that this change did not affect **ia* sequences when **i* was in the first syllable.
- However, this runs counter to *metasan* ‘eleven’ < **mi-a-tasan* and *mekin* ‘single, alone; clear’ < **mi-a-kin*.
- Such forms must retain the phonologically regular outcome, while in the other compounds *mi-* was restored.



Is *mianjn* old or new?

- The same restoration occurred later in other compounds and derivatives of stems ending in *-i-* (Belardi 1960: 140), e.g.
 - *hoge-zard* ~ *hogi-a-zard* ‘soul-adorning’,
 - *bare-towr* ~ *bari-a-towr* ‘donor of goods’,
 - *bare-nam* ~ *bari-anam* ‘become good, kind’

This change preceded (i.e. “bled”) the syncope of **i* in sequences **-CiV-*, which therefore affected only pre-Arm. **-Cio-* > **-Cyo-*, e.g. gen./dat. *tarwoy* < **taryoy* < **tari-oy*. For further discussion, see Kim 2021:385–6.



Mianjn as a neologism

- The difference in inflection between *anjn* and *mianjn* is thus unlikely to be a relic of an earlier stage of the language.
- Either immediately prehistoric Armenian at the time of Christianization still had a living morphological rule that converted *n*-stems with pl. *-ink'* to *n*-stems with pl. *-ownk'* as the second member of a compound (whether or not inherited from PIE!);
- or the contrast between *anjink'* and *mianjownk'* does not reflect a systematic morphological pattern of the language, but is due to semantic factors, lexical diffusion, etc.



The prehistory of *n*-stem inflection in Armenian

- The questions raised in the last two sections require us to examine more closely what is known of the morphological history of Old Armenian *n*-stems, and of ablauting consonant stems more generally.
- The *n*-stem inflectional patterns have been classified in several different ways. The table on the next slide is based on the schemes of Schmitt (1981 [2007]:101–4) and Olsen (1999:115–6).



n-stem inflectional patterns in Old Armenian

Schmitt	Type A	Subtype A	Type B	Type B´	Subtype B1
Olsen	Type 1.A	Type 1.B	Type 2.A	Type 2.B	Type 3.A
	‘nation’	‘part’	‘tooth’	‘side’	‘corner’
N/A sg.	<i>azn</i>	<i>masn</i>	<i>atamn</i>	<i>kołmn</i>	<i>ankiwn</i>
GDL	<i>azin</i>	<i>masin</i>	<i>ataman</i>	<i>kołman</i>	<i>ankean</i>
Abl.	<i>aznē</i>	<i>masnē</i>	<i>atamanē</i>	<i>kołmanē</i>	<i>ankenē</i>
Instr.	<i>azamb</i>	<i>masamb</i>	<i>atamamb</i>	<i>kołmamb</i>	<i>ankeamb</i>
N pl.	<i>azink´</i>	<i>masownk´</i>	<i>atamownk´</i>	<i>kołmank´</i>	<i>ankiwnk´</i>
A/L	<i>azins</i>	<i>masowns</i>	<i>atamowns</i>	<i>kołmans</i>	<i>ankiwns</i>
GDAb.	<i>azanc´</i>	<i>masanc´</i>	<i>atamanc´</i>	<i>kołmanc´</i>	<i>ankeanc´</i>
Instr.	<i>azambk´</i>	<i>masambk´</i>	<i>atamambk´</i>	<i>kołmambk´</i>	<i>ankeambk´</i>

- Other minor classes and irregularities are left aside, such as Schmitt’s other variant of Type B with uniform *ow* [u] in the plural, which is restricted to *u*-stem adjectives ending in *-r* (e.g. *p´ok´r*, pl. *p´ok´ownk´*, *p´ok´owns*, *p´ok´ownc´*, *p´ok´owmbk´*); his Subtype B2 (Olsen’s Type 2.C), which is restricted to *town* ‘house’ and *šown* ‘dog’ (GDL sg. *tan*, pl. *townk´*, etc.); the many nouns in *-ik* and *-owk* that follow the inflection of *atamn* (e.g. *afjik* ‘girl’, *manowk* ‘child’); and nouns that follow *n*-stem inflection only in the singular or plural (e.g. *otn* ‘foot’, pl. *i*-stem; *erēc´* ‘priest’, sg. *u*-stem).



A precious archaism?

- The origin of these subtypes is far from settled, and opinions diverge greatly. Some scholars (see e.g. Hamp 1988) have assumed that the Armenian inflection of *n*-stems, and in particular the *-own-* subtype of *mianjown* (Schmitt's Subtype A), is highly archaic in PIE terms.
- Meillet (1903a:54, 1936:79 [continuation of the previous citation]; followed by Tumanjan 1971:216): “...mais **l’arménien a conservé un état plus ancien que le grec** en ceci que le grec a généralisé le vocalisme *o* à tous les cas de la déclinaison de *ἄφρων*: génit. *ἄφρονος*, dat. *ἄφροσι*, tandis que **l’arménien a conservé l’ancien vocalisme e au génitif-datif-locatif sing. *mianjin* *ւիաւնձիւ***; cf. le contraste du nominatif lit. *akmuõ* «pierre» et du génitif *akmeñs*; du nominatif got. *hairto* «cœur» et du génitif *hairtins*.”
- Meillet (1903b:143): “**Cet archaïsme est le plus remarquable de tous ceux que présente la grammaire arménienne** et assurément le plus instructif pour la grammaire comparée générale.”



A precious archaism?

- Schmitt (1981 [2007]:110–1): “Im Gegensatz zum Gr., wo die *o*-Stufe durch das gesamte Paradigma hindurch verallgemeinert worden ist, zeigt das Armen. hier innerparadigmatischen Ablaut, der mit seinem Nebeneinander sämtlicher Ablautstufen (*-in-*, *-own-*, *-an-*) **zweifellos genauer den idg. Zustand reflektiert als das gr. Flexionsmuster....** Solcher **-en-/on-*Ablaut in einunddemselben Paradigma findet sich auch im German. (vgl. zu got. *guma* „Mann“ etwa Gen. Sing. *gumins*, Nom. Plur. *gumans*) und im Balt. (lit. Nom. Sing. *akmuõ* „Stein“, Gen. Sing. *akmeñs*).”
- Matzinger (2005:20; cf. also 121fn.541): “Insgesamt spiegeln die armenischen *n*-Stämme mit der Bewahrung der drei Ablautstufen *-in-* < idg. **-en-*, *-own-* < idg. **-on-* und *-an-* < idg. **-ŋ-* **ein recht getreues Abbild** des ehemaligen Ablautschemas wieder.”



Archaism and innovation

- However, others assume a mixture of archaism and innovation.
- Olsen (1999:117–9) assumes generalization of hysterodynamic GDL sg. *-in* < **-én-* in Types 1.A and 1.B, and takes *-an-* from **-ŋ-V-* with “revocalization” as well as **-ŋt-* (Gr. *-ατ-*). She concludes that “the proterodynamic and hysterodynamic variants are kept apart, but while the archaic aphophonic alternation is neatly preserved in the proterodynamic type (**-ōn*, *-en-s*, *-on-es* → *-n*, *-in*, *-ownkʰ*), the hysterodynamics are characterized by a levelling of the vocalism (**-ēn*, *-n-os*, *-en-es* → *-n*, *-in*, *-inkʰ*).”
- Matzinger (2005:71–3) operates with widespread analogical influence among the different *n*-stem subtypes as well as from other inflectional classes: extension of full-grade **-en-* from the loc. sg. to the gen./dat. in Type A, but of zero-grade **-an-* < **-ŋ-* in Type B; adjustment of the gen./dat./abl. pl. from **-C-nacʰ* to *-C-ancʰ*.



A productive inflectional class

- Importantly, *n*-stems were productive in Armenian (Olsen 1999:115). **All** nouns that ended up with a nom./acc. sg. in *-Cn* follow *n*-stem inflection, including PIE suffixed formations in **-C-no-* or **-C-neh₂-*, generalized acc. sgs. in *-Cn* < PIE **-C-ṃ*, or loanwords from Iranian:
 - *t'orñ* 'grandchild' (< **torno-*, cf. Skt. *tarṇa-* 'young animal', Lith. *tañnas* 'servant'; *HAB* II 198), gen. *t'orin**, pl. acc./loc. *t'orowns*;
 - *beřn* 'load' (< **b^her-neh₂-*, cf. Gr. *φερνή* 'dowry'), gen. *beřin*;
 - *otn* 'foot' (< PIE **pód-ṃ*), gen. *otin* (pl. *i*-stem);
 - *jeřn* 'hand' (← PIE **ĝ^hésor-ṃ*), gen. *jeřin* (pl. *a*-stem);
 - *azn* 'nation, people' (cf. Av. *ā-sna-* 'natural', ManMP *'zn* 'noble'), gen. *azin*, pl. *azink'*.



Contemporary views on *n*-stem inflection

- Pace Meillet (and Schmitt), the alternation of *e*- and *o*-grade suffixes in Germanic or Lithuanian *n*-stems is no longer considered to be of PIE date.
 - For Germanic, the inflection of masculine *n*-stems such as Goth. *guma* ‘man’, acc. *guman* < PIE **-on-* vs. gen. *gumins*, dat. *gumin* < PIE **-en-* results from a long and in part unrecoverable series of morphological changes that have largely merged the different PIE accent and ablaut paradigms. For discussion, see Ringe 2017:306–7.
 - Alongside modern *piemuõ* ‘shepherd’, gen. *piemeñs*, Old Lithuanian also had a class of *n*-stems with uniform suffix *-uon-* (e.g. *pirmuõ* ‘first-born’, pl. *pirmuones*), cognate with Slavic inhabitant names in *-an-* (e.g. OCS *graždane* ‘townsfolk’ to *gradŭ* ‘town’) and going back to PBSI. **-ōn-* < PIE **-o-on-* with the individualizing suffix (Jasanoff 1980:379, Nussbaum 1986:254–6). The *-uon-* type was originally proper to substantivizing formations, but there was leveling in both directions in OLith. On the reduction of animate *n*-stems to these two types in Balto-Slavic, see Kim forthcoming: § 5.



n-stem plurals in *-ank'*, *-ink'*, *-ownk'*

- We leave aside the ablaut contrast in the sg. between Schmitt's Types A and B (Olsen's Types 1 and 2) and focus on the feature of main interest to us here, the contrast in the nom. and acc./loc. pl. between *-in-* (*azink'*), *-own-* (*masownk'*, *atamownk'*), and *-an-* (*kołmank'*).
- Of these, *-own-* has long been taken as the expected shape of the plural suffix for PIE *n*-stem animates in **-on-* as well as *n*-stem neuters.
- The latter are especially numerous: note in particular deverbal nouns in the extended suffix *-owmn*, e.g. *šaržowmn* 'movement', gen. *šaržman*, pl. *šaržmownk'*.



n-stem plurals in *-ank'*, *-ink'*, *-ownk'*

- Meillet 1898:274, 1903b:140; Meillet (1903b:54, 1936:79; continuation of the previous citation): “De même dans les anciens masculins et féminins, **-un-k'* *-nɪŭ-p* représente **-ones* ou **-ōnes*, ainsi dans *harsunk'* *hɯɾpɪnɪŭp* «brus».... Dans les anciens neutres, **-un-k'* *-nɪŭ-p* repose sur **-ōnə* ou **-ōnā*, cf. got. *hairt-ona* «cœurs», skr. *bráhmāṇi* «prières».”
- Džaukjan (1982:109): “nom. pl. *-in-k'* and *-un-k'* go back to **-ěn-es* and **-ōn-es*..., and also **-ěn-ā*, **-ěn-ə* and **-ōn-ā*, **-ōn-ə* of nouns of neuter gender (cf. Skt. *bráhmāṇi* ‘prayer’s, Go. *hairtona* ‘hearts’), with later extension to them of the pl. formant *-k'*.”
- Olsen (1999:119) suggests that *-an-* in her Type 2 goes back to **-ŋt-* (like Greek *-ατ-* in gen. sg. ὄνοματος, σώματος) rather than a “revocalized **-ŋ-*” and concludes that “the affinity between [gen.dat.loc.sg.] *-an* and pl. *-ownk'*...is perfectly consistent with the ntr.pl./collective ending **-onə₂* or even **-ontə₂*.”



PIE neuter **-m̥n̥* and plural **-mōn*

- PIE neuters in **-m̥n̥* did form plurals in **-mōn* (< ***-mon-h₂*): cf.
 - PIE **d^héh₁-m̥n̥* ‘place’ (Ved. *dháma* ‘dwelling, domain’) → **d^héh₁-mōn* (OAv. *dāmaṇ*, *dāmaṃ* ‘places, beings’; Ved. *dhāmāni*);
 - PIE **séh₁-m̥n̥* ‘seed’ (Lat. *sēmen*) → **séh₁-mōn* (OHG *sāmo*).
- This is interpreted in the EM as an instance of ID from proterokinetic sg. **R(é)-m̥n̥* ~ **R(∅)-mén-* → amphikinetic coll. **R(é)-mōn* ~ **R(∅)-mn-´*, like the ID of animate **-mon-* stems; but see now Yates 2019a, 2020.
- Note that the Slavic n-stem neuter ending **-ē̆* (OCS *-ę*) does not go back to an alleged hysterokinetic collective in **-ēn*. See Kim forthcoming: § 4 for extensive discussion.



PIE plural **-mōn* in Armenian?

- But would **-mōn* > **-mun* have survived into pre-Armenian, recharacterized with the productive (originally animate) plural endings to give *-mownk'*, *-mowns*?
- Note the absence of any reflex of **-mōn* in Greek, which has *-μνα* < (virtual) **-mn-h₂* in the isolated relic βέλεμνα 'darts, javelins'; otherwise nouns in *-μα* have created an innovative plural in *-ματα* < (virtual) **-m̥t-h₂*.



Armenian **-man*, pl. **-mank'*

- The Armenian data rather suggests that reflexes of PIE neuters in **-mṇ* > pre-Arm. **-man* originally formed their plurals in **-mank'* (Godel 1972:65, 1975:92; Klingenschmitt 1982:25 with fn. 18).
- This ending is actually attested with three nouns (Schmitt's Subtype B1 / Olsen's Type 3.A; see the table above).
 - *kołmn* 'side', pl. *kołmank'*;
 - *sermn* 'seed', pl. *sermank'* (beside *sermownk'*); and
 - *anown* 'name', pl. *anowank'*.
- Presumably PIE **-mōn* was remodeled as **-mṇ-h₂* > **-mana* → **-mank'* (Matzinger 2005:122–3). The retention of this ending in *kołmank'*, *sermank'*, and *anowank'* may be connected to their frequent use as collectives (op. cit. 123–4).



Sources of pl. *-ownk'*

- The productive ending *-ownk'* of *šaržmownk'*, *paštamownk'* 'services', etc. would be from animate nouns in PIE **-ōn*, pl. **-on-es*, for which Klingenschmitt (1982:25fn.18) gives precisely the example of *mianjn*, pl. *mianjownk'* < **-anĝ^hōn*, **-anĝ^hones!*
- Cf. Godel (1972:65): "le nominatif et l'accusatif pluriel, avec *-mun-* < **-mon-*, correspondent exactement aux terminaison grecques en *-μονες*, *-μονας*."

Olsen's more recent treatment (2017) is unclear on this point: "in some old neuters like *sermn* 'seed' (old **mṛ[t]-*stem), pl. *sermank'*, the suffix variant *-an-* is preserved throughout the paradigm" (1083); but "the type *mukn* (gen.dat.loc.sg. *-an-* < **-ṛ[t]-*) is followed by neuters in **-ṛ(t)-* and older heteroclitics", i.e. that with nom. pl. *-ownk'* (1084).



Sources of pl. *-ownk'*

- Pace Klingenschmitt, however, the type of *mianjn*, pl. *mianjownk'* need not have been the basis for generalization of *o*-grade in the plural of *nomina actionis* in *-owmn*.
- The compound type could itself have been influenced by *n*-stems which inherited the suffix **-ōn-* from PIE, namely
 1. the relatively few simplex nouns reconstructible with amphikinetic inflection of the type of PIE **d^hég^h-om-* ~ **d^hg^h-m-* 'earth'; and
 2. much more promisingly, formations in invariant **-ōn-* < **-o-* (*H*)*on-* containing the PIE substantivizing suffix **-(o)n-* or the possessive suffix **-H(o)n-*.

PIE substantivizing **-(o)n-* is well known from derived names such as Gr. Στράβων (to στραβός 'squinting'), Lat. *Catō* (to *catus* 'clear-sighted, crafty') as well as Germanic weak adjectives and OLith. *n*-stems with uniform suffix *-uon-* (see above). For the possessive suffix **-H(o)n-*, see Hoffmann 1955.



Sources of pl. *-ownk'*

- Olsen (1999:119–20) observes that old suffix formations in PIE **-C-(s)no-* or **-C-(s)neh₂-* > pre-Arm. **-Cn* adopt the inflection of her Type 1.A (GDL sg. *-in*, nom. pl. *-ink'*), “except for nouns indicating an individual where the pl. is in *-ownk'* with a formation parallel to the Germanic weak adjective.”
- Cf. also Olsen 1999:123–4, 833, where she adduces plurals to non-*n*-stems such as *erēc'* ‘elder’, *episkopos* ‘bishop’, *sarkawag* ‘deacon’, pl. *eric'ownk'*, *episkoposownk'*, *sarkawagownk'*.



Sources of pl. *-ownk'*

- Especially important are examples from inherited vocabulary denoting persons:
 - pl. *sermownk'* beside *sermank'* to *sermn* 'seed', which could denote 'offspring, progeny', hence persons (D. Kölligan, p.c.);
 - compounds of *-akn* 'eye' with nom. pl. *-akownk'*, e.g. *č'ar-akn* 'having an evil eye, wishing others ill', pl. *č'ar-akownk'*.

Following Benveniste (1965), Kölligan (2019:187–91) argues that nouns in *-akn* such as *aregakn* 'sun', *kaycakn* 'spark', *diakn* 'corpse' are in origin phrases containing *akn* 'source, origin' and not *akn* 'eye' (pl. *ač'k'*). It is possible that their plurals were influenced by true compounds of *-akn* 'eye', but pace Olsen (1999:675–6) these do not “simply represent the productive inflectional type of *n*-stems.”



The origin of the *mianjn* type

- The prehistory of *n*-stem inflection in Armenian opens the door to a new explanation for apparent examples of COS in that language.
- COS in Greek is a highly productive morphological pattern, e.g. to πατήρ we find
 - exocentric εὐπάτωρ ‘having a good father’, ἀπάτωρ ‘fatherless’, ὁμοπάτωρ ‘having the same father’, φιλοπάτωρ ‘loving one’s father’, etc. as well as
 - endocentric μητροπάτωρ ‘mother’s father’, προπάτωρ ‘forefather’, etc.
- Exceptions are few and almost entirely confined to inscriptional material, e.g. Cretan ὁμο-μάτηρ ‘having the same mother’. See Lundquist 2021:145–50.



The origin of the *mianjn* type

- In contrast, COS in Armenian is not nearly as regular, as noted already by Meillet, who adduced *mecaberownk* ‘having a great load’ vs. *canr-a-beřn* ‘having a heavy load’ as compounds of *beřn* ‘load’ (see above).
- **Hypothesis:** the plural in *-own-* of *mianjn* ‘monk’ and other compounds has spread by lexical diffusion from other nouns denoting individuals, the core of which goes back to PIE individualizing formations in **-o-on-*.



Evidence for the *mianjn* type

- A first run through Jungmann and Weitenberg (1993) indicates that the attestation of probative forms is even weaker than the secondary literature would suggest.
- Note that
 - (iun) denotes an *n*-stem of the *masn* type;
 - (unk) one with attested pl. nom. *-ownk'* and/or acc./loc. *-owns* (type *masn* or *atamn*); and
 - (in) one with attested sg. GDL *-in* and/or abl. *-nē* (type *azn* or *masn*).



Evidence for the *mianjn* type

- **All** compounds of *anjn* and *azn* follow the inflection of the *masn* type, in older as well as later texts.
- Compounds of *anjn* (all from the 5th c.):

lexeme	inflection
<i>datarkanjn</i> 'lazy'	(unk) Bible
<i>mianjn</i> 'monk'	(unk) Łazar, P'awstos
<i>mecanjn</i> 'of great stature; magnanimous'	(unk) Łazar



Evidence for the *mianjn* type

- Compounds of *azn* in 5th c. and post-5th c. authors:

lexeme	inflection
<i>haykazn</i> 'Armenian, of the Hay race'	(iun) Movsēs (also (o) Movsēs)
<i>diwc'azn</i> 'of the race of gods, heroes'	(unk) Eznik + (in) Movsēs
<i>ark'ayazn</i> 'who are of the race of kings'	(unk) Agat'angelos
<i>t'agaworazn</i> 'of the race of kings'	(unk) Agat'angelos + (in) Koriwn (also (a/i) Łazar)
<i>skayazn</i> 'of the race of giants'	(unk) P'awstos, Movsēs
<i>naxararazn</i> 'who are of the race of magnates'	(unk) Elišē, Movsēs
<i>hskayazn</i> 'who are of the race of giants'	(unk) Łevond Vardapet
<i>hamazn</i> 'of the same race'	(unk) Łevond Vardapet, Yovhannēs Kat'olikos
<i>višapazn</i> 'who are of the race of dragons'	(iun) Movsēs



Evidence for the *mianjn* type

- However, **none** of the compounds of *beṛn* ‘load’ is attested in a probative inflected form:
 - *canrabeṛn* (Bible, P‘awstos),
 - *mecabeṛn* (Agat‘angelos); also
 - *barjrabeṛn* ‘having a high load’, *t‘et‘ewabeṛn* ‘having a light load’ in Yovhannēs Kat‘olikos.
- No compounds of *leaṛn* ‘mountain’ listed!
- The only other potentially relevant example I have found is *kaṛap‘n* ‘skull’ (unk, Eznik), if ultimately a compound with *ap‘n* ‘shore’ (in, Bible). Very uncertain!



Conclusions and future tasks

- These preliminary observations suffice to demonstrate that Armenian *n*-stem compounds do not exhibit a regular shift from the *-in-* to the *-own-* types in the nom. and acc./loc. pl.
- COS is effectively confined to compounds of *anjn* ‘person’ and especially *azn* ‘nation, people, race’. Sporadic forms with pl. *-ownk’* in later (“postclassical”) texts reflect lexical diffusion from this core.
- Armenian compounds denoting persons, such as those in *-anjn* or *-azn*, could have acquired the plural endings *-anjownk’*, *-azownk’* from *n*-stems formed with the PIE individualizing suffix. However, the absence of clear reflexes of the latter type is an obstacle for this hypothesis.



Not an inherited feature

- If this conclusion is correct, i.e. if the parallel of εὐ-πάτωρ and *mi-anjownk'* turns out to be a *Scheingleichung*, it has significant consequences for the morphological and accentual reconstruction of PIE.
- The total lack of overlap between Greek and Armenian in nominal bases affected, as well as fundamental inflectional differences between the two languages and likelihood of significant innovation in Armenian *n*-stem inflection, greatly weakens the case for COS as a shared Greco-Armenian feature.



COS as parallel innovation

- However the *o*-grade of εὐπάτωρ, ἄφρων, etc. is to be explained (starting from archaic compounds of root nouns, cf. Κύκλωψ < **rk̑u-klōp-* ‘cattle thief’ to **klep-* ‘steal’?), it should not be automatically projected back to the protolanguage, and its development in Greek has undoubtedly proceeded independently from that of the *mianjn* type in Armenian.
- Still less should an amphikinetic paradigm (with ill-specified accentual and ablaut properties!) be reconstructed for the second member of compounds, as has been widely assumed solely on the strength of the suffixal vowel **o*.

This emphasizes once again the need to treat critically all aspects of what has become “received wisdom” in Indo-European linguistics, and investigate features such as COS to the fullest possible extent within the individual languages before projecting them back to the protolanguage.



Future tasks

- Principal tasks for the future:
- Full investigation of the Old Armenian philological evidence
 - Other examples of pl. *-ownk'* in compounds to nouns of the *azn* type?
 - For those *n*-stems whose compounds show variation in endings, does the textual context of the compounds correlate at all with inflection? Is Olsen right that *-ownk'* correlates with nouns denoting persons?



Future tasks

- Historical morphology of Armenian *n*-stems
- Is it possible to identify two or three likely reflexes of the PIE individualizing suffix among Armenian *n*-stems? This would make it more plausible that the inflectional type with pl. *-ownk'* spread from there.
- Can we posit a plausible scenario for the evolution of PIE *n*-stems in Armenian, with (partial) relative chronology and a series of intermediate steps?



Thank you for your attention!
Danke für Ihre Aufmerksamkeit!

Dziękuję za uwagę!

Спасибо за внимание!

Շնորհակալություն
ուշադրության համար!



Bibliography (1)

- Beekes, Robert. 2010. *Etymological Dictionary of Greek*. With the assistance of Lucien van Beek. (Leiden Indo-European Etymological Dictionary Series, 10.) Leiden/Boston: Brill.
- Belardi, Walter. 1960. Review of Jensen 1959. *Annali dell'Istituto Universitario Orientale di Napoli, Sezione Linguistica (AION-L)* 2, 133–44.
- Benveniste, Émile. 1965. Arménien *aregakn* „soleil“ et la formation nominale en *-akn*. *Revue des Études Arméniennes* n.s. 2, 5–19.
- Clackson, James P. T. 2007. *Indo-European Linguistics: An Introduction*. Cambridge: Cambridge University Press.
- —. 2017. The lexicon of Armenian. In Klein, Joseph, and Fritz (eds.) 2017, Vol. 2, 1115–32.
- Džaukjan, G. B. 1982. *Sravnitel'naja grammatika armjanskogo jazyka*. Erevan: Izdatel'stvo Akademii Nauk Armjanskoj SSR.
- Fortson, Benjamin W., IV. 2009. *Indo-European Language and Culture*. Second edition. Malden, Mass./Oxford/Chichester: Wiley-Blackwell.
- Frisk, Hjalmar. 1960–72. *Griechisches etymologisches Wörterbuch*. 3 vols. Heidelberg: Winter.
- Godel, Robert. 1972. Questions de phonétique et de morphologie arméniennes. *Revue des Études Arméniennes* n.s. 9, 47–67.
- —. 1975. *An Introduction to the Study of Classical Armenian*. Wiesbaden: Reichert.
- *HAB* = Ačařyan, Hrač'ya. 1926–35. *Hayeren armatakan bařaran* [Root Dictionary of Armenian]. 7 vols. (2nd ed., 4 vols., Erevan: Erevani Hamalsarani Hratarakč'owt'yown, 1971–79.)
- Hamp, Eric P. 1988. On the essentiality of the Armenian nasal declensions. *Annual of Armenian Linguistics* 9, 19–20.
- Hoffmann, Karl. 1955. Ein grundsprachliches Possessivsuffix. *MSS* 6, 35–40.
- Jasanoff, Jay H. 1980. The nominative singular of *n*-stems in Germanic. In Kathryn Klar, Margaret Langdon, and Shirley Silver (eds.), *American Indian and Indoeuropean Studies: Papers in Honor of Madison S. Beeler*. The Hague: Mouton, 375–82.
- Jensen, Hans. 1959. *Altarmenische Grammatik*. Heidelberg: Winter.
- Jungmann, Paul and J. J. S. Weitenberg. 1993. *A Reverse Analytical Dictionary of Classical Armenian*. (Trends in Linguistics, Documentation, 9.) Berlin: Mouton de Gruyter.
- Kim, Ronald I. 2013. Metrical grid theory, internal derivation, and the reconstruction of PIE nominal accent paradigms. In Götz Keydana, Paul Widmer, and Thomas Olander (eds.), *Indo-European Accent and Ablaut*. (Copenhagen Studies in Indo-European 5). Copenhagen: Museum Tusulanum, 63–105.
- —. 2021. The phonetics and phonology of Old Armenian <v>, <w>, and prevocalic <ow>. *Transactions of the Philological Society* 119.3, 371–92.
- —. Forthcoming. The Slavic neuter *n*-stems in Indo-European perspective.
- 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, October 30th and 31st, 2009*. Bremen: Hempen, 137–81.
- —. 2018. Accent and ablaut: emergent cyclicity. In David M. Goldstein, Stephanie W. Jamison, and Brent Vine (eds.), *Proceedings of the 28th Annual UCLA Indo-European Conference, November 11th and 12th, 2016*. Bremen: Hempen, 135–47.
- — and Morris Halle. 1977. Towards a reconstruction of the Indo-European accent. In Larry Hyman (ed.), *Studies in Stress and Accent*. Los Angeles: University of Southern California Press, 209–38.



Bibliography (2)

- Klein, Jared, Brian Joseph, and Matthias Fritz, eds. 2018. *Handbook of Comparative and Historical Indo-European Linguistics*. 3 vols. (Handbücher zur Sprach- und Kommunikationswissenschaft, 41.) Berlin/Boston: de Gruyter Mouton.
- Kölligan, Daniel. 2019. *Erkink' ew erkir. Studien zur historischen Grammatik des Klassisch-Armenischen*. (Studien zur historisch-vergleichenden Sprachwissenschaft 12.) Hamburg: Baar.
- —. 2021. Classical Armenian. In Götz Keydana, Wolfgang Hock, and Paul Widmer (eds.), *Comparison and Gradation in Indo-European*. (Mouton Handbooks of Indo-European Typology, 1.) Berlin: de Gruyter, 49–80.
- Lundquist, Jesse. 2016. Does *tvátpitārah* = εὐπύτωρ? Paper read at the 28th UCLA Indo-European Conference, 11 Nov 2016.
- —. 2021. Does *tvátpitārah* = εὐπύτωρ? Accents, amphikinetics, and compounds in Sanskrit, Greek, and Indo-European. To appear in *Indo-European Linguistics* 9.
- — and Anthony D. Yates. 2018. The morphology of Proto-Indo-European. In Klein, Joseph, and Fritz (eds.) 2018, Vol. 3, 2079–195.
- Martirosyan, Hrach K. 2010. *Etymological Dictionary of the Armenian Inherited Lexicon*. (Leiden Indo-European Etymological Dictionary Series, 8.) Leiden/Boston: Brill.
- —. 2019. Historical phonology and morphology of Classical Armenian. MS, Leiden/Vienna.
- Matzinger, Joachim. 2005. *Untersuchungen zum altarmenischen Nomen. Die Flexion des Substantivs*. (Münchener Studien zur Sprachwissenschaft, Beiheft 22.) Dettelbach: Röhl.
- Meier-Brügger, Michael. 2010. *Indogermanische Sprachwissenschaft*. Unter Mitarbeit von Matthias Fritz und Manfred Mayrhofer. 9., durchgesehene und ergänzte Auflage. Berlin/New York: de Gruyter.
- Meillet, Antoine. 1898. Étymologies arméniennes. *Mémoires de la Société de Linguistique* 10, 274–82. (Reprinted in Meillet 1977, 39–47.)
- —. 1903a. *Esquisse d'une grammaire comparée de l'arménien classique*. Vienne: Imprimerie des PP. Mékhitharistes.
- —. 1903b. De quelques archaïsmes remarquables de la déclinaison arménienne. *Zeitschrift für armenische Philologie* 1, 139–48. (Reprinted in Meillet 1977, 85–94.)
- —. 1913. *Altarmenisches Elementarbuch*. Heidelberg: Winter
- —. 1936. *Esquisse d'une grammaire comparée de l'arménien classique*. Seconde édition entièrement remaniée. Vienne: Imprimerie des PP. Mékhitharistes.
- —. 1977. *Études de linguistique et de philologie arméniennes*. II. *Études linguistiques*. Louvain: Imprimerie Orientaliste.
- Nussbaum, Alan. 1986. *Head and Horn in Indo-European: The Words for "Horn," "Head," and "Hornet"*. (Untersuchungen zur indogermanischen Sprach- und Kulturwissenschaft, Neue Folge, Vol. 2.) Berlin/New York: de Gruyter.
- Olsen, Birgit Anette. 1999. *The Noun in Biblical Armenian. Origin and Word-Formation, with Special Emphasis on the Indo-European Heritage*. (Trends in Linguistics: Studies and Monographs, 119.) Berlin/New York: Mouton de Gruyter.
- —. 2017. The morphology of Armenian. In Klein, Joseph, and Fritz (eds.) 2017, Vol. 2, 1080–97.
- Puhvel, Jaan. 1999. The mausoleum ban of the bronze tablet: Hittite *parkiya*- equals Greek φράσσω. *HS* 112, 69–74.



Bibliography (3)

- Ringe, Don. 2017. *A Linguistic History of English*. Volume 1: *From Proto-Indo-European to Proto-Germanic*. 2nd ed. Oxford: Oxford University Press.
- Schindler, Jochem. 1975a. L'apophonie des thèmes indo-européens en *-r/n*. *BSL* 70, 1–10.
- —. 1975b. Zum Ablaut der neutralen *s*-Stämme des Indogermanischen. In Helmut Rix (ed.), *Flexion und Wortbildung: Akten der V. Fachtagung der Indogermanischen Gesellschaft, Regensburg, 9.-14. September 1975*. Wiesbaden: Reichert, 259–67.
- Schmitt, Rüdiger. 1981. *Grammatik des Klassisch-Armenischen mit sprachvergleichenden Erläuterungen*. (Innsbrucker Beiträge zur Sprachwissenschaft, 32.) Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck. (2nd ed. 2007, Innsbruck: Institut für Sprachen und Kulturen der Universität Innsbruck).
- Steer, Thomas. 2013. Some remarks on the derivation of amphikinetic collectives. In Stephanie W. Jamison, H. Craig Melchert and Brent Vine (eds.), *Proceedings of the 24th Annual UCLA Indo-European Conference, October 26th and 27th, 2012*. Bremen: Hempen, 189–207.
- —. 2015. *Amphikinese und Amphigenese. Morphologische und phonologische Untersuchungen zur Genese amphikinetischer Sekundärbildungen und zur internen Derivation im Indogermanischen*. Wiesbaden: Reichert.
- Tumanjan, Ė. G. 1971. *Drevnearmjanskij jazyk*. Moskva: Nauka.
- —. 1978. *Struktura indoevropskix imen v armjanskom jazyke. Opyt rekonstrukcii*. Moskva: Nauka.
- van Beek, Lucien. 2013. The development of the Proto-Indo-European syllabic liquids in Greek. Ph.D. dissertation, Universiteit Leiden.
- Weiss, Michael. 2020. *Outline of the Historical and Comparative Grammar of Latin*. Second edition. Ann Arbor/New York: Beech Stave.
- Widmer, Paul. 2004. *Das Korn des weiten Feldes. Interne Derivation, Derivationskette und Flexionsklassenhierarchie: Aspekte der nominalen Wortbildung im Urindogermanischen*. (Innsbrucker Beiträge zur Sprachwissenschaft, 111.) Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck.
- Yates, Anthony D. 2017. Lexical accent in Cupeño, Hittite, and Indo-European. Doctoral dissertation, UCLA.
- —. 2019a. Indo-European ablaut and the trap of the leftmost column. Paper read at the 27th Manchester Phonology Meeting, 23–25 May 2019.
- —. 2019b. Hittite *paḫḫweni*, Greek *πυρί*, and their implications for Indo-European ablaut. Paper read at the 38th East Coast Indo-European Conference, University of Pennsylvania, 20–23 June 2019.
- —. 2019c. The word-prosody of Proto-Indo-European **-mon*-stems and their implications for internal derivation. Paper read at the 31st Annual UCLA Indo-European Conference, 8–9 Nov 2019.
- —. 2021. The synchronic and diachronic prosody of Hittite *-r/n*-stems. Paper read at the 40th East Coast Indo-European Conference, Cornell University/Virginia Tech, 17–19 June 2021.