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OLD ARMENIAN *Y-EPENTHESIS AND A MYSTERIOUS L-GRAPHEME¹

The development of PIE *VRy in Old Armenian remains a topic of controversy, with available evidence pointing to either VyR or VRĵ. This paper argues that the regular treatments are *aRy > ayR, *oRy > oyR vs. *VRy > VRĵ, where V = {i, e, u}. In addition to the examples from the standard reference works (since Pedersen 1906), more recent etymological proposals by Olsen (1999), Martirosyan (2010), etc. have been taken into account and evaluated against the latest PIE reconstructions.

The first of these two changes has been associated with terminological confusion in the scholarly literature, where it is variously labeled metathesis, anticipation (both in e.g. Martirosyan 2010: 733–734) or epenthesis (e.g. Ravnæs 1991: 33–39). Since metathesis can cover a sequence of multiple changes, while anticipation describes only one step in that sequence, I argue in favour of the latter term. The [j]-epenthesis before a consonant, a typologically common change (Kümmel 2007: 265–266), implies regular palatalisation; the nonsegmental component of the palatalised consonant later became a full glide segment due to the shift in timing of articulatory gestures. Thus, for the famous example *ayl* ‘other’ < PIE **ál-yo-*, the crosslinguistically best supported and phonetically most plausible sequence of changes is *[a^l(j)o] > *[a^lo] (change in timing) > *[a^lo] (elision of offglide) > *[ajl(o)] (segmentalisation of onglide) > *ayl*. A similar sequence of changes may be assumed for *oRy > oyR, e.g. *boyl* ‘company’ < PIE **b^holy-*.

Instances of *y > ĵ in the environment *{i, e, u}Ry include *sterĵ* ‘sterile’ < PArm. **ster-ya-* < **stér-ih₂-* and *kamowrĵ* ‘bridge’ < **kammur-ya-* < **g^wm^bur-ih₂-*. Among alleged counterexamples, the often cited *olĵ* ‘whole’ may be easily explained as *(h)olĵ(o)- < **solwyo-*, where ĵ is the regular outcome of the cluster *wy, as in *arāj* ‘first’ < **prh₃w-yo-m* or **prh₃w-ih₂-*.

In light of the numerous examples of *aly > ayl, it is concluded that PIE *l did not only give PArm. *l and *l, but also *l̥ / _y. Interestingly, this last reflex may have left graphemic traces: as early as 1911, Meillet (see Ravnæs 1991: 93) called attention to the peculiar fact that some older manuscripts show an unusual version of the grapheme <l> with superposed diacritic rather than the expected <l>, as in *nšoyl* ‘light’. This symbol could then indeed represent a third lateral sound [l̥], which only later in the postclassical period fell together with l.

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Древнеармянская *у-эпентеза и недешифрованная графема

В данной статье разбираются неоднозначные примеры перехода п.-и.-е. сочетания *VRy в грабаре, и делается вывод о том, что регулярными являлись эпентеза *aRy в ayR, *oRy в oyR в противопоставлении к фортизации *VRy > VRj̄, где V = {i, e, u}. Помимо классических примеров (начиная с Pedersen 1906), дальнейшие этимологии, предложенные Olsen (1999), Martirosyan (2010) и пр., рассматриваются в свете последних открытий в области и.-е. реконструкции.

Эпентеза [j] подразумевает палатализацию согласного, который в случае с др.-арм. латеральным предположительно оставил до сих пор недешифрованный след в письменности. В 1911 г. А. Мейе (Ravnæs 1991: 93) кратко упомянул о примечательном варианте графемы <ɭ> в некоторых древнейших рукописных памятниках, с диакритическим знаком, вместо ожидаемого <ɭ>, напр., в *nšoyl* ‘свет’. Данный символ может обозначать третий латеральный рефлекс *l, [l̥], который лишь в постклассический период подвергся слиянию с l.

Ключевые слова: сравнительное языкознание, историческая фонология, индоевропейский язык, армянский язык, эпентеза, дешифровка

1. Introduction²

The development of PIE *VRy in Old Armenian remains a topic of controversy, with available evidence pointing to either Arm. VyR or VRj̄³. Some sources state that the sole regular outcome is either the first (Pisani 1950: 178) or the second (Meillet 1936: 52) of these

² I thank Jan Bičovsky, Anna Ivanova, Ron Kim, and the anonymous reviewer for their invaluable help with revising this paper.

³ V = any vowel, R = any resonant.

The transliteration of the Armenian script follows the standard Hübschmann-Meillet system (as described e. g. in Schmitt 1981: 25–26), i. e. y = [j], j = [d̥z], j̄ = [d̥z̄], etc.

I take the liberty of diverting from the transliteration as in Schmitt (1981) only by using <ē>, <ō> instead of <ê>, <ô> for [e̞], [au] respectively; and by using <^h> as a modifier indicating aspiration of a consonant, for Arm. phonemes just like the PIE ones, e. g. t^h, *d^h. In the Hübschmann-Meillet transliteration, Armenian voiceless aspirated consonants are written with a turned comma above, e. g. <t^h>; for a reader or a user of this text trained in IPA, this diacritic sign could be confusing, as it is similar to the comma that otherwise indicates ejectives.

changes, without providing a satisfactory explanation for the apparent contradictory evidence. A step towards accounting for both of these developments in a holistic analysis is taken by Godel (1975: 87) who restricts the first change for **aRy > ayR* only, as opposed to **VRy > VRj̄*, where V [-open].

This paper argues that the regular treatments are **aRy > ayR*, **oRy > oyR* vs. **VRy > VRj̄*, where V = {i, e, u}. Several scholars (Ravnæs 1991: 36; Beekes 2003: 161–162) have examined the examples in favour of these two changes, but nevertheless treat them as irregular, uncertain, not having solid support in etymologies, or contradicted by counterexamples.

2. *y-epenthesis

First and foremost, let us cope with the terminological confusion⁴ that has been associated in the scholarly literature with the change **aRy > ayR*, undisputably seen e.g. in the instance of *ayl* ‘other, different’, ultimately from PIE **ál-yo-*⁵. This change has been variously labeled metathesis, anticipation (both e.g. in Martirosyan 2010: 733–734), and even infection (Beekes 2003: 161–162), as well as epenthesis (eg. Ravnæs 1991: 33–39).

As is well known from various languages⁶, the developments labelled as metatheses may superficially look like a swap of two sounds; however, they do not consist of a single change, but rather of a series of steps that may differ significantly from one context to another. This term may therefore be of little help when trying to determine the nature of such a development as **ál-yo- > ayl*. While metathesis can cover a whole sequence of various changes, anticipation only refers to one step in that sequence and is therefore also of limited scope. Hence, I argue in favour of the last term, namely epenthesis. Without identifying this change as epenthesis, the

⁴ Note that regardless of the terminological choice, the establishing of this change for Proto-Armenian is further supported by the fact that it goes along with the well-known crosslinguistic tendency for the segments in a consonant cluster to decrease in sonority. All the examples of Old Armenian clusters in de Lamberterie 1992: 245, i. e. liquid + nasal, nasal + fricative or stop etc., follow this tendency. Meanwhile, «[l]es autres groupes sont résolus par l’insertion d’un *a* devant la consonne finale» – one of the examples being *skizbn* ‘beginning’ /əs-kiz-bən/.

⁵ Cf. LIPP: 18–27 on **ál-* vs. **ol-* (LIPP: 592–594); cf. TB *ālo*, Gk. ἄλλο, Lat. *alius*, Eng. *else*, OIr. *eile*.

⁶ Textbook examples can be found in Hock 1991: 110–116.

connection between the reconstructed processes and their possible graphemic reflexes (cf. section 3) would not have been made.

Epenthesis can in short be defined as the insertion of a sound. Naturally, though, consonantal epentheses, and instances of semivowel epenthesis specifically, are not about random sounds appearing in different phonological environments out of nowhere. Most known examples of [j]-epenthesis before a consonant imply regular palatalisation in the language⁷. The inevitable non-segmental companion of those palatalised consonants is the glide [j], which can later become a full segment due to the shift in timing of articulatory gestures.

Thus, for the famous example *ayl* ‘other’ < PIE **ál-yo-*, the crosslinguistically best supported⁸ and phonetically most plausible sequence of changes is:

**[a^{l̥}(j)o]* > **[a^{l̥}ʲo]* (change in timing) > **[a^{l̥}lo]* (elision of offglide) > **[ajl(o)]* (segmentalisation of onglide) > *ayl*⁹.

Apart from *ayl*, a revised list of other classical examples for **aRy* > *ayR* appearing in the standard reference works ever since Pedersen 1906 would include the following:

dayl ‘beestings’ < **daly* < **d^hh₁ly-*, cf. Alb. *djalë* ‘boy’, Latv. *dēls* ‘son’, from **d^heh₁(i)-* ‘to suck’; also Arm. *die-m*, aor. *diec^hi* ‘I suck, I am breastfed’;

p^hayl ‘shine, splendour’ < **p^haly* < **sp(h)ly-* from the uncertain PIE root **(s)p(h)el-*, cf. Lat. *splendēre* ‘to shine’, Skt. *sphuliṅga-* ‘spark’;

sayr ‘edge’ < **sary* < **k^hh₃ry-* from **k^heh₃-* ‘to sharpen’; cf. Lat. *cōs*, *cōtis* ‘sharpening stone’, Ved. *śitá-* adj. ‘sharp’, YAv. *saēni-* ‘tree-top’; also Arm. *sowr* adj. ‘sharp’; n. ‘sword’ < **k^hoh₃-ro-* (NIL: 411–412);

jayn ‘voice’ < **jany* < **ġ^hw^hny-* ‘to sound; to ring’, cf. Russ. *звон* ‘ringing, chime’, TB *kene* ‘tune’;

layn ‘wide’ < **lāny* < **platany* («**-l̥-* revocalized (*al* → *la*) after the full grade **pleth₂-*» – Olsen 1999: 767 fn. 11) < **p^{l̥}th₂ny-*, cf. Gk. *πλάτανος* ‘plane tree’.

⁷ For more examples of this typologically common change, cf. Kümmel 2007: 265–266.

⁸ Cf. Hock 1991: 117–126.

⁹ Certainly, some nuances of such an undocumented development can only be speculated about. Alternatively, one could envisage the intermediate steps in a different manner: **[a^{l̥}j^o]* > **[a^{l̥}ʲo]* (assimilation) > **[a^{l̥}o]* (simplification of the geminate) > **[a^{l̥}(o)]* > *ayl*.

There are furthermore two other classical examples where we can see a slightly different process – the once palatalized segment [ɲ] that gave rise to the future separate segment [j] later underwent absolute assimilation to that [j]:

**h₂nēr* ‘man’ > PArm. **anēr* > **anir* > **dʲn(i)r* > **a(j)j(i)r* > *ayr*; vs. **h₂nṛós* > *arñ* (see Martirosyan 2010: 730 for the account of resonant metathesis);

*(*h*)*antēr* gives homonymous *ayr* ‘cave’, see the change of unaccented *-Vnt- > -Vn- vs. *-Vnt- > -Vnd- suggested by Olsen 1989; the supposed intermediate stage **ant^ha(y)r* in Martirosyan 2010: 734 is less clear; cf. Clackson 1994: 98.

The similar development of the (mostly) temporal adverbial suffix *-ayn* < -*[aɲni] < *-*anini* < *-*ntini* (Olsen 1999: 280–286, 795; not all Old Armenian words in *-ayn* belong to the same type of formation, however; cf. *layn*, *orovayn* above) and (mostly) temporal adjectival *-ayin*, gen. sg. *-aynoy* < *-*aninoy* < *-*ntinosyo* (Olsen 1999: 287) remain to be clarified.

This list may be augmented with other examples, such as *sayl* ‘wagon’, which could have indeed originated from a preform **satil-*, and combined with a case ending give **sat^lIV-* > **saytl* > *sayl* after the simplification of the cluster. Cf. Olsen 1999: 956 for an assumed loan.

More possible evidence is outlined in Olsen 1999: 795–796, out of which the following examples look promising:

k^hayle-l ‘to take steps’ < **kl^h(h)ye/o-*, also *k^hayl* ‘step’;
kaylak ‘drop’ < **kayl-* + diminutive suf. *-ak⁻¹⁰* < **kaly-* < **gl^h(h)y-*, cf. Skt. *gulikā-* ‘ball; bead; pearl’;
 suf. *-eleayn* < **-e.liany.-* < **-eliHni-* in *lrēleayn* ‘in silence; secretly’.

A not unproblematic suggestion (ibidem) worth reflecting upon is that *orovayn* ‘belly; womb’ goes back to a preform **k^wruH.tny-* via **-uwapani*. Doubtful here are the developments of the velar, the laryngeal + alveodental cluster, and «the slightest adaptation of the vocalism (*or[u]u-* > *orov-*) to match the actually attested form» (Olsen 1999: 285 fn. 188).

I see no need to exclude instances of **oRy* > *oyR* here, since there is no convincing evidence for **oRy* > *oRj* (see section 3

¹⁰ On the many usages of the suffix, see Olsen 1999: 240–255.

below), and since the phonetic processes are traceable in the same manner as with the **a* preceding the **Ry* cluster. Yet again, secure classical examples come from as early as Pedersen 1906: 406, cf. Olsen 1999: 796–797:

boyl < PIE **b^holy-*; cf. *bolo* ‘entire’ (possibly loaned into Georg. *bolo* ‘last’);

hoyl(k^h) ‘assembly, group, troop’ < **hewli-* < **pelh₁₋*; cf. Martirosyan 2010: 417–418;

nšoyl ‘light, shining’ tentatively reconstructed as **ni-* + **k^wey-tli-* (following Olsen 1999: 102), where *š* is the outcome of **k^w*, compare with the discussion in Martirosyan 2010: 732; cf. *šoł*;

t^hoyl, as in *t^hoyl ar̄nel* ‘to give permission’ < **tolh_{2i-}*.

Turning to possible counterexamples, we shall focus our attention on the passage in Olsen 1999: 796, according to which the expected epenthesis is missing in a number of words. These include examples with original **-i-*: *sal* ‘anvil’ < **k^hahli-*; *ban* ‘word’ < **b^hah_{2ni-}*; *bard* ‘burden’ < **b^hr_ti-*; *tōn* ‘feast’ < **dapni-*. Obviously, these etymologies are not relevant for our purposes, since none of them derives for a protoform with a **y* in a clearly nonsyllabic position, and they do not seem to fit in terms of their syllabic structure.

Note that all the instances above are concerned with the two Old Armenian liquids and *n*. Even though some evidence for **Vmy* > *Vym* in Old Armenian might come up during future research, it must be stated for now that the absence of such evidence is hardly surprising in phonetic terms: palatalisation is naturally tongue-articulated, which contradicts with the articulation of [m] and other labials, thus making palatalised non-linguals (unlike coronals and dorsals) crosslinguistically exceptional. Should it happen that a labial is palatalised, it often either loses its palatalisation later, or shifts in the place of articulation.

3. Fortification of **y*

Any discussion of fortition of PIE **y* into Arm. *ǰ* after **{i, e, u}R*¹¹ must begin with the famous example *sterǰ* ‘barren, sterile’¹². Its formation is likely one of the **-ih₂₋*-stems, giving **ster-ya-*, cf.

¹¹ In Ravnæs 1991: 178, this change is to be found under 40c in his relative chronology, with the following explanation: «The strengthening of **y* to *ǰ* after a sonant (*sterǰ*) antedates the epenthesis, or is simultaneous with it».

¹² Cf. Godel 1975: 80; Clackson 1994: 46–48; Olsen 1999: 84, 771, 827.

Gk. στειρός, Lat. *sterilis*, Skt. *starī-*, all with the same basic meaning.¹³ Its variant *sterd* has naturally led some scholars to assume **sterd^h-yo-* (Clackson 1994: 208 fn. 53). Purely in terms of the phonological development, both reconstructions are probable.

As Olsen 1999: 82 points out: «In a few examples, *harč* 'concubine', *hac^c* 'bread', *mayr* 'cedar, fir tree; of cedar, of fir tree', *net* 'arrow' and *verj* 'end', a combination of formal and functional considerations lead to the assumption of basic *vrkīh-* formations, i.e. non-ablauting, suffix-accented paradigms in nom.sg. **-ih₂-s* > **-i^hah* > **-i*, gen.sg. **-ih₂-os* > *-i*, as the most likely interpretation». In the case of *verj* 'end, tail' < **uperih₂*, the *vrkīh-* derivation is suitable for explaining the Arm. *i*-stem.

The *a*-stem *kamowrj*, *kamrji* 'bridge' is often listed as an Armenian-Greek isogloss with Gk. γέφυρα 'id.', but this is rejected by Clackson 1994: 134–135, who derives the Old Armenian form from **g^web^hur-ih₂-*. That reconstruction implies the unparalleled medial **-b^h-* > *-m-*, for which the outcome known from other etymologies is *-w-*. The reconstruction in Olsen 1999: 66 differs in the vocalic segment of the first syllable: **g^wm^hb^hur-ih₂-*. As it would only be natural for the **-b^h-* to be assimilated in that context, surrounded by sounds with labial articulation, I suggest a development to **kammur-ya-* and then to [kamurḏʒ]. However, cf. Ravnæs 1991: 96; Olsen 1999: 771, 827; Viredaz 2007: 9 for different interpretations.

With *lowrj* 'cheerful; (light) blue' (→ Georg. ლურჯ-օ *lurḏzi* 'blue') and its cognate Welsh *clir* 'light, bright' (Olsen 1999: 205–206, 771, 943), it seems clear that the root **kluh₁r-* is most viable. The exact derivation for Old Armenian is nonetheless difficult to establish: it can be a **-yo-* stem as well as a **-ih₂-* stem. Cf. *lowrt^h* (Olsen 1999: 206 fn. 389, 774).

Finally, we should mention n. *erinj* '(young) cow', which vacillates between *o-* and *u-* stem paradigms. I am not sure that «[t]he *u-* stem forms are easily understood as being determined by *kov*, *kovow...*» (Olsen 1999: 185), where *kov* is a more generic name for 'cow'. The most plausible etymon seems to be **(h)erin-ih₂-*.

Amongst the most significant counterexamples, an often cited one is adj. *olj* 'whole, sound'. In our opinion, this can be easily explained away as **(h)olj(o)-* < **solwo-* (Olsen 1999: 26, 197, 274, 519, 798, 811, 830), where *j* is the regular outcome of the cluster

¹³ NB: Clackson 1994: 208 fn. 54 on the usage of the Old Armenian word with animals only, in the Bible.

wy.¹⁴ Other examples of this development include adv. and prep. *aṛāj* ‘first, before, in front of’; n. ‘front; beginning’, which may be traced back to **pr̥h₃w-yo-m* (Olsen 1999: 196) as well as **pr̥h₃w-ih₂-*, cf. Skt. *pūrvyá-* ‘precedent, first’. The regular outcome of **w* in Arm. is *g* in most environments, but clearly there could not have been a change of the cluster **wy* > **gy*, whereby it would merge with the reflexes of PIE **g^hy*, for plain velars do not palatalise and we would expect a plain **g* vs. **g^wy* > *č*. We should assume that the intermediate stage was **g^wy* (merging thus with the reflex of PIE **g^{wh}y*), which then proceeds to *ǰ* regularly.

Another word worth mentioning to support this further is *aloǰ* ‘(young) female goat’ of unknown inflection as well as origins. In Olsen 1999: 67, 196, 762, a protoform **h₁lmb^h-ih₂-* is put forward on the basis of the phonological and semantical links with Gk. *ἔλαφος* ‘deer’ and PGm. **lambaz*. To maintain such a reconstruction, a development **N₁b^hy* > *ǰ* is suggested. After **-m₁b^hih₂-* > **-mby-*, it would have only been natural if the two labials underwent either progressive or regressive assimilation (**-mmy-* / **-bby-*); the outcome *ǰ* from **y* would have more support after the resonant than the stop, but the vocalisation to *o* would be bizarre in either case. I believe that the development could have taken a different course: the undoubted vocalisation of the sonorant **m₁* > *am* together with the equally established change of intervocalic **-b^h-* > *-w-* (Schmitt 1981: 58; Olsen 1999: 211); e. g. *awel* ‘broom’, cf. Gk. *ὄφελμα* (id.) < **h₃b^hel-*) and (admittedly later) *aw* > *o* would have given **h₁lmb^h-ih₂-* > **h₁lqb^(h)ya-* > **alawǰ* > *aloǰ*.

4. The mysterious grapheme

In the light of the numerous examples of **aly* > *ajl*, we conclude that PIE **l* not only gave PArm. **l* and **l*, but also **l̥* / *y*₋. Interestingly, this last reflex may have left graphemic traces in the oldest manuscripts.

As early as 1911, Meillet (see the discussion in Ravnæs 1991: 93) called attention to the peculiar fact that some older manuscripts show an unusual version of the grapheme <ł> with superposed diacritic rather than the expected <l>, as in *nšoyl* ‘light’. This symbol could then indeed represent a third lateral sound [l̥] which only later fell together with *l* in the postclassical period.

¹⁴ Another possibility, PIE **solwos*, undermines what is known about the development of OArm. postconsonantal **w*, and therefore should be abandoned.

The statement that this grapheme «*n*'a malheureusement jamais été étudié en détail» (Meillet 1911: 209) holds true to this day. It is necessary to further examine the distribution of that peculiar grapheme to see, whether it is not by any chance written also in words with *yl* from other source than **ly*, e. g. *gayl* 'wolf' from **way-lo-* (Olsen 1999: 34, 848), naturally with no reason to suppose [ʎ] in its prehistory.

It is noteworthy that a pre-form **uljo-* is mentioned in Martirosyan 1999: 197 without being explicitly rejected; **way-lo-* is later debated as the preferred reconstruction. Also, according to Martirosyan 2010:196, *gayl* is «spelled *gaył* in the famous palimpsest of Agat'angelos» (i. e. his Պատմութիւն Հայոց from the 5th century), but it is too soon to draw conclusions from these brief pieces of information before closer examination of the relevant manuscripts and further research into the problem.

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