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

The development of PIE *VRy in Old Armenian remains a topic of controversy, with available evidence pointing to either VγR or VRj. This paper argues that the regular treatments are *aRy > ayR, *oRy > oyR vs. *VRy > VRǰ, 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 (Kümml 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 *ály-o-, the crosslinguistically best supported and phonetically most plausible sequence of changes is *[a]l(j)o > *[a]l'lo (change in timing) > *[a]lj(o) (elision of offglide) > *[a]lj(o) (segmentalisation of onglide) > ayl. A similar sequence of changes may be assumed for *oRy > oyR, e.g. boyl ‘company’ < PIE *b'oly-.

Instances of *y > j in the environment *fi, e, u|Ry include sterj ‘sterile’ < PArm. *ster-ya- < *stér-ih- and kamowrǰ ‘bridge’ < *kamomr-ya- < *g'mb'ur-ih-2. Among alleged counterexamples, the often cited oļǰ ‘whole’ may be easily explained as *(h)olj(o)- < *solwyo-, where j is the regular outcome of the cluster *wy, as in araǰ ‘first’ < *prh3w-yo-m or *prh3w-ih-2.

In light of the numerous examples of *aly > ayl, it is concluded that PIE *l did not only give PArm. *f/l and *l, but also *f'į. 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 <ł>, as in nšoyl ‘light’. This symbol could then indeed represent a third lateral sound [l], which only later in the postclassical period fell together with l.

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Л. Иванова
(Карлов университет, Прага, Чехия)

Древнеармянская *y-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 > VRǰ, 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 оставался до сих пор недешифрованным след в письменности. В 1911 г. А. Мейе (Ravnæs 1991: 93) кратко упомянул о примечательном варианте графемы <ł> в некоторых древнейших рукописных памятниках, с диакритическим знаком, вместо ожидаемого <l>, напр., в nšoyl ‘свет’. Данный символ может обозначать третий латеральный рефлекс *l, [ɬ], который лишь в постклассический период подвергся слиянию с l.

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

1. Introduction

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

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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 = [dʒ], ɬ = [ɭ], etc.

I take the liberty of diverting from the transliteration as in Schmitt (1981) only by using <ä>, <ō> instead of <â>, <ô> for [e], [au] respectively; and by using <h> as a modifier indicating aspiration of a consonant, for Arm. phonemes just like the PIE ones, e. g. tʰ, dʰ. In the Hübschmann-Meillet transliteration, Armenian voiceless aspirated consonants are written with a turned comma above, e. g. ⟨t‘⟩; 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 > VRį, where V [– open].

This paper argues that the regular treatments are *aRy > ayR, *oRy > oyR vs. *VRy > VRį, 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 confusion 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-. 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 languages, 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

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 Lamberton 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 ǝ devant la consonne finale» – one of the examples being skizbn ‘beginning’ /as-kiz-ban/.

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

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 language. 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:

\* [al(j)o] > *[al⁠j̥o] (change in timing) > *[a⁠l̥o] (elision of offglide) > *[a⁠l̥(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 < *d̥h̥ly-, cf. Alb. djalē ‘boy’, Latv. dēls ‘son’, from *d̥e(h)₁(i)- ‘to suck’; also Arm. die-m, aor. diecʰi ‘I suck, I am breastfed’;

pʰayl ‘shine, splendour’ < *pʰaly < *sp(h)λy- from the uncertain PIE root *(s)p(h)el-, cf. Lat. splendēre ‘to shine’, Skt. sphulīṅga-‘spark’;

sayr ‘edge’ < *sary < *kʰ3ry- from *kʰ3- ‘to sharpen’; cf. Lat. cōs, cōtis ‘sharpening stone’, Ved. śītā- adj. ‘sharp’, YAv. saēni-‘tree-top’; also Arm. sōwr adj. ‘sharp’; n. ‘sword’ < *kʰoḥ₃-ro- (NIL: 411–412);

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


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⁷ For more examples of this typologically common change, cf. Kümmel 2007: 265–266.
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: *[al⁠j̥o] > *[al⁠l̥o] (assimilation) > *[al⁠o] (simplification of the geminate) > *[a⁠l̥(o)] > ayl.
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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]:

\[ *h₂nēr \quad \text{‘man’} > \text{PArm.} \quad *anēr > *anir > *ān(i)r > *a(j)i(r) > ayr; \quad \text{vs.} \quad *h₂nrós > arn (see Martirosyan 2010: 730 for the account of resonant metathesis); \]

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

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

This list may be augmented with other examples, such as \text{sayl ‘wagon’}, which could have indeed originated from a preform \text{*satil-}, and combined with a case ending give \text{*satlV-} > \text{*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:

\[ kʰ̆\text{ayle-}l \quad \text{‘to take steps’ < *kl(h)ye/o-}, \text{ also kʰyl ‘step’;} \]
\[ \text{kaylak ‘drop’ < *kayl- + diminutive suf. -ak öld < *kal– < *gl(h)y-}, \text{ cf. Skt. gulikā- ‘ball; bead; pearl’;} \]
\[ \text{suf. -eleayn < *-e.lian y.- < *-eliHni- in lrleayn ‘in silence; secretly’.} \]

A not unproblematic suggestion (ibidem) worth reflecting upon is that orovayn ‘belly; womb’ goes back to a preform \text{*kʰruH.ttnvvia *-uwqani. 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 \text{*oRy > oyR} here, since there is no convincing evidence for \text{*oRy > oRŷ} (see section 3

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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 *bʰoly-; cf. bolo ‘entire’ (possibly loaned into Georg. bolo ‘last’);
nšøyl ‘light, shining’ tentatively reconstructed as *ni- + *k̂wey-tli- (following Olsen 1999: 102), where š is the outcome of *k̂w, compare with the discussion in Martirosyan 2010: 732; cf. šol;
tʰoyl, as in tʰoyl ar̄nel ‘to give permission’ < *tolh₂i-.

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’ < *k̂ahli-; ban ‘word’ < *bʰah₂ni-; bard ‘burden’ < *bʰrti-; 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. ĵ after *{i, e, u}/R\(^{11}\) must begin with the famous example sterį ‘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 ĵ after a sonant (sterį) antedates the epenthesis, or is simultaneous with it».

Gk. στεῖρος, Lat. sterilis, Skt. starī-, all with the same basic meaning. Its variant sterd has naturally led some scholars to assume *sterd*-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 'bread', mayr 'cedar, fir tree; of cedar, of fir tree', net 'arrow' and verǰ 'end', a combination of formal and functional considerations lead to the assumption of basic vr̥kī́ḥ-formations, i.e. non-ablauting, suffix-accented paradigms in nom.sg. *-ih₂-s > *-i̯ah > *-i, gen.sg. *-ih₂-os > -i, as the most likely interpretation». In the case of verǰ ‘end, tail’ < *uperih₂, the vr̥kī́ḥ-derivation is suitable for explaining the Arm. i-stem.

The a-stem kamowrǰ, kamrǰi '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 *gʷebʰur-ih₂-. That reconstruction implies the unparalleled medial *-bʰ- > -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: *gʷmbʰur-ih₂-. As it would only be natural for the *-bʰ- to be assimilated in that context, surrounded by sounds with labial articulation, I suggest a development to *kammur-ya- and then to [kamur̥dʒ]. However, cf. Ravnæs 1991: 96; Olsen 1999: 771, 827; Viredaz 2007: 9 for different interpretations.

With lowrǰ ‘cheerful; (light) blue’ (→ Georg. ლურჯ-ი lurджi ‘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. lowrh (Olsen 1999: 206 fn. 389, 774).

Finally, we should mention n. erinǰ ‘(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. olǰ ‘whole, sound’. In our opinion, this can be easily explained away as *(h)olǰ(o)- < *solwy-o- (Olsen 1999: 26, 197, 274, 519, 798, 811, 830), where j is the regular outcome of the cluster.

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13 NB: Clackson 1994: 208 fn. 54 on the usage of the Old Armenian word with animals only, in the Bible.
Another examples of this development include adv. and prep. *arəj ‘first, before, in front of’; n. ‘front; beginning’, which may be traced back to *prəh₃w-yo-m (Olsen 1999: 196) as well as *prəh₃w-ih₂-, cf. Skt. pùrvyā- ‘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 *g̱y, for plain velars do not palatalise and we would expect a plain *g vs. *g̱y > č. We should assume that the intermediate stage was *g̱y (merging thus with the reflex of PIE *g̱wh), which then proceeds to j regularly.

Another word worth mentioning to support this further is aloj ‘(young) female goat’ of unknown inflection as well as origins. In Olsen 1999: 67, 196, 762, a protoform *h₁lm̩b⁵-ih₂- is put forward on the basis of the phonological and semantical links with Gk. ἐλαφὸς ‘deer’ and PGm. *lambaz. To maintain such a reconstruction, a development *Ṉb⁵y > j is suggested. After *-mb⁵ih₂- > *-mby-, it would have only been natural if the two labials underwent either progressive or regressive assimilation (*-mmy- / *-bby-); the outcome j 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 sonoric *m > am together with the equally established change of intervocalic *-b⁵- > -w- (Schmitt 1981: 58; Olsen 1999: 211); e. g. awel ‘broom’, cf. Gk. ὄφελμα (id.) < *h₃bəl- and (admittedly later) aw > o would have given *h₁lm̩b⁵-ih₂- > *hlqᵇ⁵ya- > *alawj > aloj.

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 *ḻ /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 <l> with superposed diacritic rather than the expected <l>, as in nšoyl ‘light’. This symbol could then indeed represent a third lateral sound [ḻ] 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 detail» (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 then *ly, e. g. gayl ‘wolf’ from *way-lo- (Olsen 1999: 34, 848), naturally with no reason to suppose [l] 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 gayl in the famous palimpsest of Agat’angelo» (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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