

Rhotics in Armenian and Parthian

Evidence from Loanwords

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Overview

The sounds of ancient languages: problems, methods, goals

Background: Armenian & Parthian

Case 1: Arm. /t/ > /ɣ/ ([ɣ]~[ɛ])

Case 2: Pth. /ð/ → Arm. /r/

Case 3: Pth. /r/: [r]/[r] → /r/: [r] & [r] ?

Final Remarks

Reconstructing sounds

- ▶ Reconstructing phoneme inventories is an 'old hat'.
- ▶ Internal Reconstruction and the Comparative Method have been used and discussed since the time of the Young Grammarians in the 19th century.
- ▶ Some recent summaries and criticism: FOX (2015); HARRISON (2003); HOENIGSWALD (1963); RANKIN (2003).

- ▶ Most reconstruction is based exclusively on written sources and does not aim to go beyond phonology.
- ▶ Notable exception: [Ancient Sounds project](#)

Reconstructing sounds: problems

- ▶ Depending on the language in question, its writing system, conservative orthography, and degree of attestation – not to mention lack of recordings – may impede detailed, phonetic analysis.
- ▶ The phonetic parameters of established or reconstructed phonemes remain uncertain where not in direct contrast to other phonemes.
- ▶ Not all languages provide sufficient internal data or have a sufficiently long grammatical traditions to yield insights into their phonetics.
- ▶ Today, we look aim to look at ways to overcome these obstacles, at the example of /R/ – for obvious reasons.

Methodology: typological & comparative evidence

- ▶ If language-internal data does not suffice, we must seek help elsewhere.
- ▶ We focus here on one two-pronged approach:

Comparative Evidence from loanwords provides insight into the phonetics of some phonemes owing to the interaction of two phonemic systems (L1–L2 correspondences).

Typological Evidence from other, unrelated languages corroborates the plausibility of a postulated change/correspondence.

- ▶ Additional information may come from the manuscript tradition: Scribal errors and hypercorrections aid in establishing phonetic similarities between sound-letter pairs.

Goals

- ▶ Provide a reasoned best-estimate of the likely phonetic realisation of established phonemes in ancient languages.
- ▶ Test case: Armenian and Parthian.
- ▶ Illustrate the use of contact and typological data for the establishment of such estimates.
- ▶ Provide an impetus for further studies in this direction beyond the big classical languages (e.g. Latin and Greek, cf. ALLEN 1987, 1989)

Background: Armenian & Parthian

Both


- ▶ Indo-European languages of the South Caucasus / West Asia.
- ▶ Attested in (late) Antiquity and the early Middle Ages.
- ▶ In prolonged contact with each other (>500 years).

Armenian

- ▶ Attested in writing since the early 5th century.
- ▶ Heavily influenced by Iranian languages in (almost) all linguistic domains (MEYER fthc.)
- ▶ Main modern daughter languages: Modern Eastern Armenian (Republic of Armenia, Iran), Modern Western Armenian (international diaspora).

Parthian

- ▶ Actively spoken 1st century BCE – 4/7/10th century CE (?).
- ▶ North West Middle Iranian language.

▶ No direct descendants; closest: Kurmanci, Sorani, Balochi, Zazaki, Talyshi.

Classical Armenian phoneme inventory

| | bilabial | | | labio- dental | alveolar | | | palato- alveolar | | | palatal | velar | | | uvular | glottal |
|---------------------|----------|------|-------------------|------------------|----------|---------------|--------------------|---------------------|------|--------------------|---------|-------|-------------------|--------|--------|---------|
| | [-v] | [+v] | [+asp] | | [-v] | [+v] | [+asp] | [-v] | [+v] | [+asp] | | [-v] | [+v] | [+asp] | | |
| Nasal | | /m/ | | | | /n/ | | | | | | | | | | |
| Stop | /p/ | /b/ | /p ^h / | | /t/ | /d/ | /t ^h / | | | | /k/ | /g/ | /k ^h / | | | |
| Affricate | | | | | /ts/ | /dz/ | /ts ^h / | /tʃ/ | /dʒ/ | /tʃ ^h / | | | | | | |
| Fricative | | | | /v/ | /s/ | /z/ | | /ʃ/ | /ʒ/ | | | | | /χ/ | /h/ | |
| Approximant/ | | /w/ | | | | /l/, /r/, /ʎ/ | | | | | /j/ | | | | | |
| Tap | | | | | | | | | | | | | | | | |
| Trill | | | | | | /r/ | | | | | | | | | | |

(GODEL 1975:9; cf. VAUX 1998:12–16)

Parthian phoneme inventory

| | labial/ | | dental/ | | post/palato- | | velar | | glottal |
|--------------------|--------------|------|----------|----------|--------------|-------|-------|------|---------|
| | labio-dental | | alveolar | | alveolar | | | | |
| | [-v] | [+v] | [-v] | [+v] | [-v] | [+v] | [-v] | [+v] | |
| Nasal | | /m/ | | /n/ | | | | | (/ŋ/) |
| Stop | /p/ | /b/ | /t/ | /d/ | /c/ | (/ɟ/) | /k/ | /g/ | |
| Fricative | /f/ | /β/ | | /ð/ | | | /x/ | /ɣ/ | /h/ |
| Sibilant | | | /s/ | /z/ | /ʃ/ | /ʒ/ | | | |
| Approx./Tap | /ʌ/ | /w/ | | /l/, /ɾ/ | | | | | |

(DURKIN-MEISTERERNST 2014:85–100)

Case 1: Arm. /t/ > /ɣ/ ([ɣ]~[ɛ])

- ▶ As shown above, Classical Armenian has:
 - ▶ two rhotic phonemes: /r/ <ր> and /r/ <ռ>
 - ▶ two other liquids: /l/ <լ> and /t/ <ղ>
- ▶ Minimal pairs:
 - ▶ *aranc*ʹ <արանց> “from (the) men” vs *aranc*ʹ <անանց> “without”
 - ▶ *ali* <ալի> “grey hair; old age” vs *ali* <աղի> “of salt”
- ▶ Distinct phonemes, but there are some conditional mergers.

Issue: value of <ղ>

- ▶ Modern Eastern Armenian (MEA) has [ɣ]~[ɛ] (for a summary of the debate: DUM-TRAGUT 2009:17 n. 20).
- ▶ Borrowings in the Classical language make that value unlikely.

Loans where Arm. <ղ> ← /l/

Greek

- ▶ Arm. <Երուսաղեմ> (*Erusalem*) ← Gk. <Ἱερουσαλήμ> /i.e.ru.sa'lim/
- ▶ Arm. <Պաւլոս> (*Pawłos*) ← Gk. <Παῦλος> /'pa.βlos/
- ▶ Arm. <փաղանգ> (*p'alang*) “legion; troops” ← Gk. <φάλαγξ> /'fa.lanɣks/

Iranian

- ▶ Arm. <սաղար> (*satar*) “general in chief” ← WMIr. <s'l'r> /sa:.la:r/
- ▶ Arm. <տաղաւար> (*talawar*) “tent” ← Pth. <tlw'r> /ta.la.wa:r/

Semitic

- ▶ Arm. <տղայ> (*tlay*) “child, boy” ← CSyr. <ṭalyā> /'tʰal.ja/
- ▶ Arm. <գաղութ> (*galut*) “flight, emmigration” ← CSyr. <gālūtā> /galuθa(?)/ “exile”

Assumptions

- ▶ <ɫ> and <ɥ> represent distinct phonemes (/l/ and not-quite-/l/).
- ▶ Given the loanwords shown above, <ɥ> must originally be close to [l], though – thus likely [ɫ] – rather than MEA [ɣ] ~ [ʁ].
- ▶ In time, we must assume a change [ɫ] > [ɣ] ~ [ʁ].

Questions

- ▶ Are there any indications that this change took place?
- ▶ Despite conservative orthography, can we figure out when this change took place?
- ▶ Is this a realistic, otherwise attested change?

Indications of change

- ▶ Doublets (at least in mss): *p'alang/p'alang*; *alt'ark'/axt'ark'* “horoscope”; *Alt'amar/Axt'amar* (an island).
- ▶ Later loans, e.g. Arm. <լիդատաւն> (liḷatawn) ← Gk. <λεγατόν> /le.ɣa'ton/ “bequest, legacy”.
- ▶ Change in progress at the time of Arab conquest (Arabic loans indicate).
- ▶ Consistent and exclusive use of <լ> [l] in loans commences in mid-11th century.
- ▶ Comparative evidence supports this development of velarised lateral to velar/uvular fricative: North Caucasian, TRUBETZKOY (1922:202–3); varieties of Sardinian, SHEER (2015:323–330).
- ▶ For the Armenian case: HÜBSCHMANN (1892:257); KARST (1901:34); MORANI (2014:202–206).

Case 2: Pth. [ð] → Arm. [r]

- ▶ As indicated above, Parthian has a phonemic alveodental fricative /ð/, contrasting with the alveodental stop /d/.
- ▶ (Almost) minimal pairs:
 - ▶ <pd> /pad/ “with” vs <p’d> /pa:ð/ “foot”
 - ▶ <kd’c> /ka.ða:z/ “(not) ever” vs <kd’m> /ka.da:m/ “which?, what?”
- ▶ A phonological distinction only in Parthian (not Middle Persian), maintained since Young Avestan times (BOLOGNESI 1960:39–40).
- ▶ Armenian loans are the primary evidence for this distinction, since the Parthian writing system does not (consistently) differentiate.

Loans where Arm. <ր> ← Pth. [ð]

- ▶ Arm. <բուրաստան> (*burastan*) “garden” < Pth. <bwdyst’n> /bo:.ðes.ta:n/
- ▶ Arm. <աւրէն> (*awrēn*) “custom” < Pth. <’bdyn> /aβ.ðe:n/
- ▶ Arm. <ապիրատ> (*apirat*) “unjust”, cp. Pth. <’byd’d> /abe:ða:d/ “lack of justice”

Correspondence

- ▶ These loans indicate:
 - (a) that Pth. <d> represents two separate phonemes (since treated differently in Armenian).
 - (b) that one phoneme expressed by Pth. <d> shares phonetic commonalities with Arm. <ր>.
- ▶ How can the values commonly reconstructed (Pth. [ð], Arm. [r]) be justified?

Comparative & typological indications

- ▶ Realisation of <ʀ> as [r] in MEA.
- ▶ Articulatory proximity of dental fricative and tap
- ▶ Evidence from other languages where [ð] > [r] or similar is attested:
 - ▶ Rhotacisation in varieties of West Midlands English (CLARK 2004:158)
e.g. <Smethwick> /'smɛðɪk/ > /'smɛrɪk/.
 - ▶ Rhotacisation of dental stops in Modern Indo-Aryan languages (MASICA 1991:194)
e.g. Skt. *nāḍikā* → Hindi /nɑː.ɽiː/.
 - ▶ Tapping in North American English
 - ▶ Individual etymologies, e.g. Engl. *porridge* ← *pottage*(cf. CATFORD 2001).

Case 3: Pth. <r>: [r]/[r] → <r>: [r] & [r]

- ▶ As indicated above, Parthian had only one rhotic phoneme /r/.
- ▶ Internal data alone does not allow for a clear determination of its phonetic realisation.
- ▶ Parthian loans in Armenian do, however, allow for certain hypotheses.
- ▶ These loans appear in two diachronically distinct layers:
 - early Pth. #/r/ → Arm. <ռ> [r]
 - late Pth. #/r/ → Arm. <ղր> [jɛr]
- ▶ Internal and final /r/ are unaffected by the change and (almost) always rendered as Arm. <ր> [r].

Loans where Arm. <n> / <եր> ← Pth. #r

Internal and final /r/

- ▶ Arm. <հրովարտագ> (*hrovartak*) “edict, decree” ← WMIr. <frwrdg> /fra.war.dag/
- ▶ Arm. <հրամատար> (*hramatar*) “ruler”, cp. WMIr. <frm'nd'r> /fra.ma:n.da:r/

Early loans: Pth. #r → Arm. <n> [r]

- ▶ Arm. <ռոտ> (*rot*) “river” ← Pth. *rwd* /ro:d/
- ▶ Arm. <ռազմ> (*razm*) “fight, battle” ← Pth. <rzm> /razm/

Late loans: Pth. #r → Arm. <եր> [jɛr]

- ▶ Arm. <երամ> (*eram*) “troop, flock” ← Pth. <rm> /ram/
- ▶ Arm. <երակ> (*erak*) “vein”, cp. Pth. <rhg>/ra.hag/

NB: Arm. <փարհ> (*p'ark'*) ← WMIr. <prh> /farah/, but cp. Bactrian <φαρρο>.

Articulatory change: a hypothesis

- ▶ This change in loan word phonology **could** indicate an articulatory change in Parthian.
- ▶ The maintenance of the correspondence Arm. <ϣ> = Pth. <r> word-internally and word-finally suggests some continuity, presumably of [r].
- ▶ In initial position, there **may** have been a change Pth. #[r] > #[r], rendered as Arm. [jɛr] owing *inter alia* to Armenian phonotactic injunction against initial [r] (cp. similar situation in Kurdish varieties).
- ▶ Whilst /r/ loses the word-initial allophone [r] in favour of [r], [r] may have been retained in specific positions with etymological <rr> (cp. Bactrian <φαρρο> above).
- ▶ Sorani: [kəɾə] “he is a donkey” vs [kəɾə] “he is deaf” etc. (cf. McCARUS 2009:592).
- ▶ Cp. the situation in Spanish: *cera* [ˈθe.ra] “wax” < Lat. *cēra* vs *cerra* [θeˈra] “he/she closes” < VLat. *serrāre* (cf. INOUE 1995:269–275).

Final Remarks

- ▶ Establishing the articulatory reality of the phonemes of ancient languages can be difficult, esp. based on internal evidence only.

- ▶ The three cases presented here illustrate (if briefly) that
 - ▶ the phonological adaptation of loan words,
 - ▶ comparative data from other languages / later varieties of the same language, and
 - ▶ the establishment of what constitutes typologically (un-)likely sound change
 help in determining what phonetic realisations are more or less likely.

- ▶ While still heavily reliant on extant data, the inclusion of multiple languages and typological insights can help to overcome shortcomings in the target language data.

- ▶ This approach facilitates more precise reconstructions in diachronic linguistics and enriches our understanding of sound change – hopefully!

Thank you for your attention!

Շատ շնորհակալությունն ձեր ուշադրության համար!

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