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Early Vedic

Phonology – Part 3: Accent, Prosodic Structure

Roadmap

- The nature of Vedic stress
- The accent system
- Syllable structure and repair
- Feet and weight contour
- Prosodic words
- Prosodic phrases and sandhi
- Intonation phrases

Accent and stress

- Vedic accent is realized as pitch
- The Vedic tradition distinguishes the following types:
  - *udātta* ‘raised‘: high tone
  - *anudātta* ‘non-raised’: non-high tone, i.e. absence of tone
  - *svarita* ‘sounded’: falling tone, transition between high and non-high tone
  - independent *svarita*: *abʰy àvastʰā́ḥ* ≈ *abʰí avastʰā́ḥ* ‘hither [his] appearances…’ (RV 5.19.1), *svàr* ≈ *súvar* ‘sun’
- Accent marking in the RV: *agninā᾽* = *agnínā*

The accent system

- Culminative accent: Exactly one *udātta* per accentual domain
  - Exceptions: Infinitives in *-tavái*, e.g. *é-tavái* ‘to go’ (: *ay*), few compounds with inflected 1st part, e.g. *bṛ́has-páti-* name of a god
- Morphological accent: Accent is determined by lexical specifications:
  - e.g. *ápas-* ‘labour’ vs. *apás-* ‘effective’; on accent in compounds see 3.1
  - e.g. *-tí-* always accented (*matí-* ‘thought’), *-anī-* always preaccenting (*upa-bárhanī-* ‘cushion’)
- Morphological mobile accent (almost) exclusively in root-formations

Beyond morphological accent

- Pattern extensions
  - Mobile root nouns: nom.pl *ā́paḥ* ‘water’, acc.pl *apáḥ*, RV books 1,10 also *ā́paḥ*
  - loss of lexical specification, default accent: *matí-* ‘thought’, post-RV *máti-*
- Phonological constraints
  - tendency to deaccentuate *i*, *u*, *ṛ* in open syllables: *havíṣ-* ‘oblation’: *havíṣ-mant-* ‘possessing the oblation’, *puṣṭí-* ‘prosperity’ : *puṣṭi-mánt-* ‘prosperous’

Clitics

- Non-contrastive personal pronouns and discourse particles are frequently enclitic.
- Special clitics (Zwicky 1977): differ from their accented counterparts in phonological make-up
- Most clitics are 2nd-position clitics
  - type 1: enclitic pronouns, typically 2nd position, 3rd position if preceded by fronted constituent + rel./interr. pronoun or complementizer. Thus: *índraḥ kím asya…* RV 6.27.1
  - type 2: particles, always 2nd position. Thus: *kéna vā te…* RV 1.76.1
  - type 3: particles, scope over their host which occupies 1st position. Thus: *áśmānaṃ cid yé…* RV 4.16.6

Syllable structure

- Onset non-obligatory
- (Complex) coda possible
  - Restrictions on word-edge, see below
- Maximum template: Ons= (s)CC, Nuc=VV, Cod=CC
- Word-internal consonant clusters:
  - VCCV always VC.CV, thus *.uk.tám.* 'said' PPP.ACC.SG, *.vip.ram.* 'poet' ACC.SG
  - VCCCV: sonority! *.ín.draḥ.* NOM.SG , but *.vark.tam.* 'you turn' INJ.AOR.2DU

The nucleus

- Vowels and syllabic liquids from nuclei, e.g. *.vr̥k.ṣá-* ‘tree’, *.pi.tŕ̥n.* ‘father’ ACC.PL
- Nuclei may be bisegmental: *.de.vā́n.* ‘god’ ACC.PL, *.de.váiḥ.* INSTR.PL
- R-diphthongs? Cf. intensives like *.né.nej.-* vs. *.dár.dr̥.-*
- Open syllables at word-edges: nasalization optional, e.g. *vindatī3m̐* PRS.3SG (:*ved* ‘find’, RV 10.146.1)

The Onset

- Bisegmental onsets follow the sonority hierarchy
- Exception: *s* plus plosive, e.g. *.stot.rá-* ‘praise song’
- Trisegmental onsets only word-initial, only with initial *s*, e.g. *.strī-* ‘woman’
  - → *s* in word-initial clusters is extrasyllabic!
  - note that *s*C-clusters are copied into reduplicants as C: *tí-ṣṭʰa-ti* PRS.3SG, *tastʰáu* PRF.3SG (:*stʰā* ‘stand’)

The Coda

- Complex codas follow the sonority hierarchy
- Restrictions on right word edges:
  - Clusters are simplified: AOR.3SG *ást^{h}āt* (:*st^{h}ā* ‘stand’), but *ákar* (:*kar* ‘make’)
  - Exception: root-internal clusters, e.g. *vark* aor.2.sg (:*varj* ‘turn’), *á-vart* AOR.3SG (:*vart* ‘turn around’)
  - On neutralizations see below

Superheavy syllables

- Superheavy syllables are licensed.
- Examples: *.spār.ha-* ‘worth seeking’, *.íḱ.ṣe.* PRS.1SG (*:īkṣ* ‘perceive’)
- But: Post-lexical superheavy syllables are avoided:
  - in compounds: *.ji.rá.aś.va-* ‘with swift horses (RV 1.141.12) besides *.ji.rā́ś.va-* (RV 2.4.2)
  - in conjuncts: *.ín.draś. ca. ag.níś. ca.* ‘Indra and Agni’ (RV 10.90.3) vs. *.ín.draś. cāg.níś. ca.* (RV 5.51.14)

Ambisyllabicity?

- Prātiśākhyas, Śikṣās, and Pāṇini: first C in cluster optionally doubled
  - reflected also in manuscript tradition
- *gávya-* ‘pertaining to cows’ is probably *.gáṷya-*:
  - the 1st syllable is metrically heavy, thus *.gáv.(ya-)*
  - tautosyllabic **gau-* regularly surfaces as *go-*, thus *gá.vya-*
  - → *v* is ambisyllabic

Repair strategies: Substitution

- Neutralization at the right word edge
  - Voiced plosives → voiceless plosives, e.g. NOM.SG *pā́t*, ACC.SG *pā́dam* ‘foot’
  - Aspirates → voiceless plosives, e.g. NOM.SG *kápr̥t* ‘penis’, cf. *kapr̥tʰá-*
  - Palatal → Velar, e.g. NOM.SG *vā́k*, ACC.SG *vā́cam* ‘speech’
  - *ś* → *ṭ* / *k*, e.g. NOM.SG *víṭ* / *vík*, ACC.SG *víśam* ‘clan’
  - *s* → *ḥ*, e.g. NOM.SG *devā́ḥ* ‘god’, cf. *devás t°*, *devā́ś ca*

Repair strategies: Elision

- Underlying consonant clusters at the right word edge are simplified:
  - ACC.PL *devā́n*, but *devā́ṃś ca* ‘god’ (underlying *-ns*), *prat^{h}áyann* ‘spreading’ (underlying *-nts*)
- Plateaux at the left word edge are simplified:
  - *turī́ya-* ‘fourth’ (for ***kturī́ya-*, cf. *catúr-* ‘four’)
  - note: Root *mnā* only with preverb *ā́*, thus *.ām̃.nā°* ‘mention’
- deletion of *s* in clusters (not obligatory):
  - *stamb^{h}* + *úd* → *úttab^{h}ita-* ‘proped up’ (cf. *tā́raḥ* NOM.PL, *stár-*)
  - *s* mobile, e.g. *páśyati* PRS.3SG ‘see’ vs. *spáś-* ‘scout’ (extrasyllbicity!)
- deletion of P in clusters:
  - *yuṅd^{h}í* / *yuṅgd^{h}í* IPV.2SG (:*yuj* ‘join’)

Repair strategies: Epenthesis

- Affix doublets like *-tum/-itum*, *-tar/-itar*
- Sievers' law: R → R̥R / {V꞉C, VRC}___V
  - *mártya-* 'human' → *mártiya-* (but *ámartyam* RV 2.11.2)
  - similarly at the left word edge: *dyáu-* 'heaven' → *diyáu-* (both passim in RV), nom.acc.sg *svàr* → *súvar* 'sun' (*svàr* only RV 10.20.2)
- Svarabhakti: {*r*,*l*}C → {*r*,*l*}VC, C{*r*,*l*} → CV{*r*,*l*}
  - *darśatá-* → *dar^{a}śatá-* 'worth seeing' (4 syll.), *índra-* → *índ^{a}ra-* (3 syll.)
  - Svarabhakti is not written.
  - According to Indian grammarians svarabhakti vowels are shorter than normal short vowels

Feet and weight distribution

- Feet (as units of accented and unaccented syllables) were unbounded.
  - Thus, feet play no role as phonological domains.
- But: Feet in the sense of metrics, i.e. units of heavy and light syllables, tend to shape the left edge of words.
  - Red. aorists: *á-jī-jan-a-t*, but *a-ci-krad-a-t*: Word-initial trochees
  - shortening in *uc-c^{h}rīyate* vs. *uc-c^{h}riyante* (: *śray^{i}*, Br), lengthening in *d^{h}riyeta* vs. *d^{h}rīyate* (: *d^{h}ar*, Br): Contour

Higher prosodic structure: Prosodic words

- Host + type 2 clitic form single prosodic words (no word-final lengthening before type 2 clitics)
- Parts of compounds are treated as phonological words (avagraha!)
  - thus: external sandhi, e.g. *mano-yúj* ‘joined by devotion’ (:*mánas-*)
- Same for taddhita-suffixes and pada-endings (avagraha!)
  - again, external sandhi, e.g. *duvo-yú- /duvas-yú-* ‘paying tribute’, ins.pl *máno-bʰiḥ* ‘mind’
- Prosodic lengthening occurs at the edge of prosodic words ending in light syllable in the domain of prosodic phrases
  - *śrudʰī hávam* (RV 1.25.19) ‘hear the call’, but *śrudʰi bráhma* (RV 6.17.3) ‘hear the formula’

Phonological phrases: External Sandhi

- Phonological phrases are the domain of external sandhi
- No external sandhi across higher prosodic constituents! Thus, in the original RV text (prior to the orthoepic diaskeuasis)
  - no sandhi across pāda-boundaries
  - often no sandhi across the caesura (on both cf. 1.3)

  dʰíyaṃ vanema ṛtayā́ sápantaḥ

  Serving according to the truth, we would gain insight. RV 2.11.12
- Host + type 1 clitic form prosodic phrases (word-final lengthening before type 1 clitics)
  - e.g. *mṛ́ḷátā naḥ* ‘be gracious to us’ RV 5.57.8

External Sandhi: RV 6.40.2

ásya piba yásya jajñāná indra
mádāya krátve ápibo virapśin
tám u te gắvo nára ắpo ádrir
índuṃ sam ahyan pītáye sám asmai

‘Drink of this, of which you drank when you were just born, Indra, for your exhilaration and for your resolve, o you who confer abundance. This drop have the cows, the men, the waters and the stone together impelled for you – for it to be fully drunk.’

(translation by Brereton & Jamison 2014)

Intonation phrases

- Main clause verbs are unaccented in the RV.
  - Probably a generalization from falling intonation in assertive OV sentences
- Vocatives
  - are unaccented

  ā́ no agne rayím bʰara

  ‘To us, Agni, bring wealth!‘ RV 1.79.8
  - are accented on the first syllable if sentence-initial

  ágne mitró asi priyáḥ

  ‘Agni! You are their beloved friend’ RV 1.75.4

Pluti

- Lengthening of phrase-final vowels to 3 moras in exclamations and questions:

  adʰáḥ svid āsī́3d upár svid āsī3t

  ‘Did something exist below it? Did something exist above?’ RV 10.129.5

- Pluti syllables bear accent independently of word accent (data only post-RV)
  - e.g. TS 6.6.2.3 *yajñápatā́3u* LOC.SG ‘lord of the sacrifice’

बहवो धन्यवादाः

Thank you for your attention!