

GÖTZ KEYDANA

Early Vedic

Morphology – Part 1: General Remarks, Word Formation, Compounds

Roadmap

- Vedic as a fusional language
- Word classes
- Morphological devices:
 - Pre-, suffixing, reduplication, conversion, internal derivation, ablaut
- Composition: semantic types, formal issues

The fusional character of Vedic Sanskrit

- Stem finals and endings often merge: NOM.PL. of \bar{a} -stems: $-\bar{a}ḥ$, counts as 2 syllables in metre, i.e. $-aHaḥ$
 - Endings encode more than one ϕ -feature: $-enā$ INS.SG.M/N (thematic)
 - Different endings encode the same (set of) feature(s) depending on the stem: $-b^hiḥ$ (C-stems), $-aiḥ$ / $-eb^hiḥ$ (thematic stems) ins.pl
 - Homonymy: $-as$ (C-stems) GEN/ABL.SG, NOM/VOC/ACC.PL; (thematic stems) NOM.SG.M
 - Features may be encoded by more than one morpheme: $ca-kār-a$ PERF.3SG 'has made'
 - Vedic Sanskrit is dependent-marking (see 4.1).

Word classes

- Nouns, adjectives, pronouns: see 3.2
- Verbs: see 3.3
- Adverbs
 - Underived, e.g. *ápi* ‘upon’, *práti* ‘against’
 - Derived, e.g. *anyá-taḥ* ‘from another place’, *anyá-tra* ‘elsewhere’, adverbial case forms, e.g. *náktam* acc. ‘by night’, *vástoḥ* gen. ‘in the morning’
- Adpositions: Most underived adverbs can be used as postpositions
- Complementizers: e.g. *yád*, *ca* (on the syntax of embedding see 4.3)
- Conjunctions: *utá*, *ca*
- Negations: *ná*, *mā* (in prohibitions)
- Discourse particles, e.g. *ha*, *vái*, *cid* (on 2P see 2.3 and 4.3)

Morphological devices: Suffixes

- The basic structure: Root + Suffix + Ending
- Suffix-less formations (root-formations)
 - Root nouns, e.g. *pád* ‘foot’, n.sg *pát*, acc.sg *pád-am*, dat.sg *padé* etc.
 - 2nd-class verbs, e.g. *ay* ‘to go’ PRS.3SG *é-ti*, PRS.3PL *y-ánti*
- Ø-endings
 - e.g. NOM.SG *pitā* (: *pitár-* ‘father’), S-AOR.2/3SG *áb^hār* (: *b^har* ‘bring’)
- In nominal derivations, suffixes may be stacked: *rāj-* ‘king’, *rāj-an-* ‘king’ : *rāj-an-yà-* ‘warrior’ : *rāj-an-ya-kam* ‘band of warriors’ (class.)

Morphological devices: Prefixes, Infix

- Prefixes are rare:
 - *ánu-vrata-* ‘obedient’, *mad* + *ánu* ‘applaud’, *anumádanti* PRS.3PL RV 1.173.7, stacked: *lab^h* + *ánu* + *á* ‘take hold’ *anv-á-leb^hire* PRF.3PL RV 10.130.7 (see below on preverbs)
 - Word negation: *a-mṛta-* ‘immortal’, *an-udrá-* ‘without water’, similarly *su-*, *dus-*, *sa-*
 - Reduplication always on the left edge of the word, see below
 - Augment: *á-b^hār* AOR.2/3SG (: *b^har* ‘bring’), *áic^hat* IPF.3SG (: *iṣ* ‘desire’, note irregular sandhi!), always immediately before the root, e.g. *ad^hy-á-st^hāḥ* AOR.2SG ‘mount’
- The *n*-infix: *yu-ná-k-ti* ‘yokes’, *yu-ñ-j-ánti* ‘they yoke’ (: *yuj*)

Taddhita-suffixes, pada-endings

- Secondary suffixes and a subset of nominal endings behave phonologically like words in compounds (external sandhi)
- C-initial taddhita-suffixes:
 - *duvo-yú-* / *duvas-yú-* ‘worshipful’
- Pada-endings:
 - INS.PL *dúvo-b^his*, DAT.PL *dúvo-b^hyas*, INS.DAT.DU *dúvo-b^hyām*, LOC.PL *dúvas-su* (note the geminate!)

Suffix alternations (Caland-suffixes)

- The adjective-forming affix *-ra* alternates with *-i* in compounds:
 - Examples:
 - *krūrā-* ‘bloody’, *á-kravi-hasta-* ‘not having bloody hands’
 - *dab^hrā-* ‘small, minor’, *dab^híti-* ← *dab^hí-iti-* ‘foe’
 - *saci-víd-* ‘clingy’, *ā-skra-* ‘sticking together’ (:sac)
- The alternation is no longer productive

Reduplication in Verb Stem Formation

- Present stems
- Perfect stems
- Reduplicated Aorist
- Desiderative
- Intensive

Reduplication in Present Stems

- Least sonorous onset consonant of the root copied: *jí-g^hrā-ti*, *tí-ṣṭ^ha-ti*
- Dorsals are copied as corresponding palatals: *jí-g^har-ti*, *jí-hī-te (:hā)*
- *l* and *a* in the reduplicant, distribution not predictable
 - *a*-vocalism: *dá-d^hā-ti*, *vá-varti* (← *vá-vart-ti*)
 - *i*-vocalism: *tí-ṣṭ^ha-ti*, *bí-b^har-ti* (alongside *b^hárati*)

Perfect Reduplication

- Least sonorous onset consonant of the root copied
- *pa-pát-a*, *da-d^hárṣ-a*
- *pa-prát^h-a*, but *ta-stámb^h-a*
- *du-drāv-a*, *śu-śóca*, *ījé* (← *i-ijé :yac*)
- Saṃprasāraṇa: *u-vās-a*
- Dorsal copied as palatal: *jā-gār-a*
- *a-āśa* (= *āśa*), but *ān-añj-a*
- *sa-sād-a* / *sedúr* (← *sa-sd-úr*), *ya-yām-a* / *yemúr*, *pa-pād-a* / *pedúr*

Reduplicated Aorist

- Shape of the reduplicant: *Ci/ī-* (C = least sonorous C of root onset)
 - Examples:
 - *á-jī-jan-a-t* (= *.á.jī.ja.nat.*), *á-vī-vṛd^h-at* (= *.á.vī.vṛ.d^hat.*)
 - *a-si-ṣyad-a-t* (= *.a.siṣ.ya.dat.*), *a-ci-krad-a-t* (= *.a.cik.ra.dat.*)
- Common pattern: Reduplicant + root syllable form a trochee

Desiderative

- Shape of the reduplicant: *Ci-*, with roots in *u Cu-*
 - Examples
 - *jíjñā-sa-*, *dí-dṛk-ṣa-*, *rú-ruk-ṣa-*
 - With root-vowel lengthening: *cí-kī-ṣa-*, *śú-śrū-ṣa-*
 - With lengthening of the reduplicant: *bī-b^hat-sa-*, *tū-tur-ṣa-*
- Tendency towards weight contour

Intensive

- Roots in final *i/u*: guṇa in stressed reduplicant
 - *né-nej-mi / né-nij-ati, po-prut^h-*
- Roots in final R: guṇa in stressed reduplicant
 - *dár-dṛ-, jañ-g^han-* (evidence for R-diphthongs?)
- Roots in final O: *ā* in stressed reduplicant or stressed guṇa + *ī/i*
 - *bā-bad^h-, pā-pat-, śā-śras-*
 - *gānī-gam- / gāni-gm-*
- Common pattern: Heavy syllable preceding the root

Reduplication in Noun Stem Formation

- Isolates: *cakrá-* ‘wheel’ (:car), *tūtumā-* ‘strong’ (cf. *túmra-*)
- Rout nouns: *cikít-* ‘knowledgeable’ (:cit), *didyú-* / *didyú-t-* ‘arrow’ (:dyav[?])
- Nominal intensives: *g^hanāg^haná-* ‘belligerent’ (:han), *calācalá-* ‘shaky’ (:car), *dad^hr̥ṣá-* ‘bold’ (:d^harṣ)
- Deverbal adjectives: *cákri-* ‘active’ (:kar)
- Onomatopoesis: *ululí-* ‘jubilant’ (AV), *dadadá-* (of thunder, ŚB)

Conversion / Internal derivation

- Deverbal root nouns:
 - *viś-* ‘dwelling’ (:veś), *vāc-* ‘speech’ (:vac)
 - With preverb: *pari-pád-* ‘trap’ (:pad), *úpa-stu-t* ‘invocation’ (:stav),
 - Compound: *śrad-d^hā-* ‘trust’ (:d^hā)
- Internal derivation: accent shift to the right:
 - *ápas-* ‘work’ vs. *apás-* ‘working’
 - *bráhman-* ‘formula’ vs. *brahmán-* ‘priest’

Ablaut: The basic pattern

	Full grade (guṇa)	zero grade	Lengthened grade (vr̥ddhi)
CaC	pad	pd	pād
CaR	kar	kr-V / kṛ-C	kār
CaN	gam	Gm-V / ga-C	gām
Cay	ja.yV / je.C	ji	jā.yV / jai.C
Cav	śra.vV / śro.C	śru	śrā.vV/śrau
yaC	yac	ic	yāc
vac	vac	uc	vāc

Ablaut as a morphophonological device

- Paradigmatic root ablaut
 - *é-ti* ‘goes’, *y-ánti* ‘they go’ (:ay); *hán-ti* ‘strikes’, *g^hn-ánti* ‘they strike’ (:han)
- Paradigmatic suffix ablaut
 - *ma-tí-ḥ* ‘thought’ NOM.SG, *ma-táy-aḥ* NOM.PL, *dǎ-tu-m* ‘offering’ ACC.SG, *dǎ-tav-e* DAT.SG
- Ablaut in derivation
 - *pād-áya-ti* ‘causes to fall’ (:pad)

Vṛddhi

- Vṛddhi, literally ‘growth’, is a productive means of forming secondary derivatives
 - *kāṅva-* ‘descendant of Kaṅva’ : *kāṅva-* proper noun
 - With affix: *vāpuṣá-* ‘wonderful’ : *vápuṣ-* ‘wonder’, *páuruṣeya-* ‘surrounded by men’ : *púruṣa-* ‘man’
 - Multiple vṛddhi: *vaiṣṇava-vāruṇá-* (ŚB) ‘directed towards Viṣṇu and Varuṇa’

Preverbatation

- Vedic makes frequent use of verbal particles / underived adverbs like *ánu* ‘after’, *ab^hí* ‘against’, *úpa* ‘up to’, *práti* ‘towards’ etc.
- Univerbation of verbal particle and verb is restricted to embedded sentences. Thus *ṛṣiḥ... práti b^hūṣati* ‘the seer... attends’ RV 5.75.1 vs. *yó... prátib^hūṣati* ‘who... attends’ RV 6.52.8
- Verbal particles / preverbs can be stacked (see above).
- Verbal particles are typically adjacent to the verb, but they may be separated by one or more intervening words (tmesis).
- The semantics is not necessarily compositional: *gam* + *ab^hí* ‘come hither’ or ‘understand’

Incorporation

- Is extremely rare in Vedic Sanskrit
- Occurs only with infinite verb forms
 - With participles: *hin-kr̥ṇvatī* ‘making the sound *hin*’ (:kar), *astam̐-yánt-* ‘going home’ (:ay, AV)
 - With the gerund: *karṇa-gṛhya* ‘seizing by the ear’ (:grah)
 - post-RV cvi-construction, e.g. *krūrī-kurvánti* ‘they wound’ (:krūrá- ‘bloody’)

Nominal Compounds

- 1st part is bare stem, e.g. *deva-yájya-* ‘sacrifice to the gods’
 - Exceptions:
 - Lexicalized juxtapositions, e.g. *jás páti-* besides *jáspati-* ‘lord of the clan’, *apsu-śád-* ‘living in the water’
- No recursion attested in Early Vedic
- A compound is one syntactic object
 - Exceptions: *rāyás-kāmo vísvapsnyasya* ‘desiring wealth like the distillate of all mother’s milk’ RV 7.42.6, *loka-jítam svargám* ‘winning the heavenly world’ AV 4.34.8

Semantic types

- Endocentric
 - Iteratives: amreḍita
 - Copulatives: dvandva
 - Determinative: tatpuruṣa
 - Determinative: karmadhāraya
- Exocentric: bahuvrīhi

Iteratives (amreḍita)

- Iterative or distributive reading: *agním-agnim* 'Agni over and over again', *dáme-dame* 'in every house'
- One inflected form (noun, adjective) repeated two times
- Only the first instantiation accented (rare exceptions, see above)

Copulatives (dvandva)

- Denote pairs of entities: *indra-vāyũ* ‘Indra and Vāyu’ (note the dual!)
 - In most instances both parts in the dual: *mitrā-varuṇā* ‘Mitra and Varuṇa’, *dyāvā-pṛthivī* ‘heaven and earth’
 - Only the 2nd part inflected for case: gen. *mitrā-varuṇayoḥ* etc.
- Plural-dvandvas denote pairs of groups: *aho-rātrāṇi* ‘days and nights’, *ajāvayaḥ* ‘goats and sheep’ (: *ajā-*, *āvi-*). Only RV 10 and later.
- Collective dvandvas from AV on: *kṛta-akṛtām* ‘what has been done and not done’

Determinatives (tatpuruṣa)

- First member fills thematic role of the second member
 - *rāja-putrá-* ‘son of a king’, *viś-páti-* ‘lord of the clan’ etc.
- 2nd member often verbal noun
 - *vájā-sāti* ‘winning of booty’, *b^hadra-vādín-* ‘uttering an auspicious cry’, *devá-tta-* ‘given by the gods’ (:dā) etc.
- From iuxtapositions: *ásvam-iṣṭi-* ‘seeking of a horse’, *bráhmaṇas-pati-* ‘lord of the formula’

Root compounds

- Special case of tatpuruṣa with verbal head
- Very productive in Early Vedic
- 2nd part is a verbal root
 - *vṛtra-hán-* ‘slayer of Vṛtra’ (:han), *ṛta-jñā-* ‘knowing the right order’ (:jñā) etc.

A note on the semantics of root compounds

- Stage-level predicate

sá vṛtrahã sanáyo viśvavedāḥ | páṛṣad víśvāti duriṭã grṇántam

‘He, the slayer of Vṛtra from old, having every possession, will take the singer across all difficulties.’ RV 3.20.4

- Event-related:

sá jātébh^hir vṛtrahã séd u havyáir | úd usríyā aṣṛjad índro arkáih

‘He with those who were born (scil. the Maruts) slayed Vṛtra, and he, Indra, sent the ruddy (cows) surging upwards with oblations and chants.’ RV 3.31.11

Determinatives (karmadhāraya)

- 1st part is attribute to 2nd part
- Quite rare in Early Vedic
 - *mahā-grāmá-* ‘great host’, *āśu-pátvan-* ‘flying swiftly’, *puró-hita-* ‘placed in front’ etc.

Exocentric compounds (bahuvrīhi)

- The semantic head is not part of the compound: *ugrá-bāhu-* ‘who has a strong arm’, cf. engl. *Armstrong*
 - Internal tatpuruṣa structure:
 - *rāyás-kāma-* ‘having a desire for wealth’, *vájra-bāhu-* ‘having a bolt on his arm’
 - Internal karmadhāraya structure:
 - *duṣ-pád-* ‘having bad feet’, *hatá-mātar-* ‘whose mother was slain’, *rāja-putra-* ‘whose sons are kings’

Governing compounds

- The first part governs the second part
- 1st part is preposition
 - *anu-kāmá-* ‘according to wish’, *paro-mātrá-* ‘excessive’
- 1st part is verb
 - *ṛd^hád-vāra-* ‘increasing goods’, *tarád-dveṣas-* ‘overcoming foes’

Formal features of compounds: The joint

- Suffix-change (Caland, see above)
- Lengthening in the joint
 - *viśvā-nara-* ‘of all men’ (< **Hnara-*), *śatā-mag^ha-* ‘rich in hundreds’
- In middle and late Vedic rare cases of *a* inserted in the joint
 - *dur-a-dab^hná-* ‘fainting doors’ (AV), *aśvín-a-kṛta-* ‘made by the Aśvins’ (VS)
- Rare cases of stem-reduction
 - *apna-rāj-* ‘commanding wealth’ (: *ápnas-*), *pr̥ṣodará-* ‘with a mottled belly’ (: *pr̥ṣat-*, *udára-*)

Formal features of compounds: Accent

- Culminative accent, e.g. *tanū-kṛt^há-* ‘making of bodies’
 - Exceptions: *śácī-páti-* ‘lord of power’, *tánū-nápād-* n.pr., some amreḍitas, e.g. *gṛhé-gṛhé* ‘in each house’
- Accent on the same syllable as in the simplex
 - Exceptions: rare accent shift in the 2nd part in bahuvrīhis: *ard^hendrá-* ‘belonging in part to Indra’ (:índra-, ŚB), *puruvíra-* ‘with many men’ (:vīrá-)
- Rules of thumb:
 - Accent on 1st part in bahuvrīhis, verbal governing compounds, amreḍitas
 - Accent on 2nd part in determinative compounds

बहवो धन्यवादाः
Thank you for your attention!