

Deterrorizing Sanskrit

Vowels, diphthongs, and vowel gradation

Harald Wiese

University of Leipzig

Vowels

The Devanagari script is based on consonant-plus-vowel signs where each consonant ends in *a* unless a marker tells otherwise.

Why *a* and not *e* or *o*?

Indo-European had short and long vowels, five each:

a, e, i, o, u

ā, ē, ī, ō, ū

Sound laws:

ie. *a/e/o* → oi. *a*

ie. *ā/ē/ō* → oi. *ā*

Vowels

Examples

- The Indo-European word for “honey” is

$$\text{ie. } *medhu- \rightarrow \begin{cases} \text{oi. } madhu- \\ \text{ogr. } methu- \rightarrow \text{FW } methane \end{cases}$$

- The “middle one” is expressed by

$$\text{ie. } *medhyo- \rightarrow \begin{cases} \text{oi. } madhya- \\ \text{ogr. FW } Meso-potamia \\ \text{lat. } medius \end{cases}$$

- The PPP marker is ie. **to*:

$$\text{oi. } pati-tam \sim \text{lat. } peti-tum$$

- Long vowels:

$$\text{oi. } da-dā-mi \sim \text{ogr. } dī-dō-mi$$

Half vowels

$$\begin{aligned} \text{ie. } i &\rightarrow \text{oi. } \begin{cases} i, & \text{bef. consonant} \\ y, & \text{bef. vowel} \end{cases} \\ \text{ie. } u &\rightarrow \text{oi. } \begin{cases} u, & \text{bef. consonant} \\ v, & \text{bef. vowel} \end{cases} \end{aligned}$$

The hybrid nature of half vowels clearly shows in the sandhi rules:

- with *i*:
 - *phalāni*, but *phalāny akhādat*
 - *gacchāmi*, but *gacchāmy aham*
- with *u*:
 - *bhavatu*, but *evam bhavativ iti* (“so let it be”) where *iti* stands for ‘end of quote’
 - *jayatu*, but *jayativ āryaputraḥ* (“may my lord be victorious”)

Diphthongs

On top of

ie. $a/e/o \rightarrow$ oi. a

ie. $\bar{a}/\bar{e}/\bar{o} \rightarrow$ oi. $\bar{a}$

you can find e and o in Sanskrit. They result from

ie. $ai/ei/oi \rightarrow$ oi. $\left\{ \begin{array}{ll} \hat{e} \text{ (normally written as } e), & \text{bef. consonant} \\ ay, & \text{bef. vowel} \end{array} \right.$

ie. $au/eu/ou \rightarrow$ oi. $\left\{ \begin{array}{ll} \hat{o} \text{ (normally written as } o), & \text{bef. consonant} \\ av, & \text{bef. vowel} \end{array} \right.$

and

ie. $\bar{a}\bar{i}/\bar{e}\bar{i}/\bar{o}\bar{i} \rightarrow$ oi. $\left\{ \begin{array}{ll} \hat{a}\bar{i} \text{ (normally written as } \bar{a}\bar{i}), & \text{bef. consonant} \\ \bar{a}\bar{y}, & \text{bef. vowel} \end{array} \right.$

ie. $\bar{a}\bar{u}/\bar{e}\bar{u}/\bar{o}\bar{u} \rightarrow$ oi. $\left\{ \begin{array}{ll} \hat{a}\bar{u} \text{ (normally written as } \bar{a}\bar{u}), & \text{bef. consonant} \\ \bar{a}\bar{v}, & \text{bef. vowel} \end{array} \right.$

Diphthongs

normal writing	our writing
<i>e</i>	<i>ê</i>
<i>o</i>	<i>ô</i>
<i>ai</i>	<i>âi</i>
<i>au</i>	<i>âu</i>

- Distinguish oi. *ê* and *ô* form i.e. *e* and *o*, respectively.
- *âi* and *âu* go back to ie. long diphthongs which helps to understand some sandhi rules.

Vowel sandhi rules

The original diphthong is still visible before vowels:

- From ie. **nei* we have
 - *nêṭṛ* “leader” and
 - *nayati* “he leads”
- Compare stem *gô*, f. (“cow”) with
 - instr. pl. *gôbhis* (*ô* before consonant) and
 - instr. sg. *gavā* sg. (*av* before vowel).

Vowel sandhi rules

- Short *i*-diphthong in second word:

atra êva (without sandhi)

→ *atra aiva* (*ai* as short diphthong with *i*)

→ *atrâiva* (the two *as* become one long *ā*)

= *atraiva* (usual spelling)

Short *i*-diphthong in first word:

sarvê iti (without sandhi)

→ *sarvay iti* (before vowel)

and then sometimes

→ *sarva iti* (*y* is “weak” and drops here between words)

= *sarva iti* (usual spelling the same)

Vowel sandhi rules

- Short diphthong with *u* in second word:

sā ôdanam pacati (without sandhi)

→ *sā audanam pacati* (*au* as short diphthong with *u*)

→ *sâudanam pacati* (the two *as* become one long *ā*)

= *saudanam pacati* (usual spelling)

- Long diphthong with *i* in first word:

asmai adadāt (usual spelling without sandhi)

= *asmâi adadāt* (*âi* as long diphthong with *i*)

→ *asmāy adadāt* (before vowel)

and then sometimes

→ *asmā adadāt* (*y* is weak and drops here between words)

= *asmā adadāt* (usual spelling the same)

Vowel sandhi rules

- Long diphthong with *u* in first word:

ubhau êva (usual spelling without sandhi)

= *ubhâu êva* (*âu* as long diphthong with *u*)

→ *ubhāv êva* (before vowel)

= *ubhāv êva* (usual spelling the same)

Vowel sandhi rules

ê and ô from sandhi rules

example a)

- *êvam bhava iti vadati* (without sandhi)
- $\rightarrow$ *êvaṃ bhavêti vadati* (sandhi rule $ai \rightarrow \hat{e}$)

example b)

- *ca iti* (without sandhi)
- $\rightarrow$ *cêti* (sandhi rule $ai \rightarrow \hat{e}$)

example c)

- *dêva īśvaras* (compound “god, the lord”, without sandhi)
- $\rightarrow$ *dêvêśvaras* (sandhi rule $aī \rightarrow \hat{e}$)

Vowel sandhi rules

ê and ô from sandhi rules

example d)

- *mêgha udakam* (compound “cloud water —> rain”, without sandhi)
- → *mêghôdakam* (sandhi rule *au* → *ô*)

example d)

- *a-va-uc-a-t* (reduplicated aorist “he spoke”, without sandhi)
- → *a-vôc-a-t* (sandhi rule *au* → *ô*)

Vowel sandhi rules

First but:

Three simple sandhi rules (indeed, one set of rules) do **not** fit in this pattern:

$$\begin{aligned}\bar{a} + i/\bar{i} &\rightarrow \hat{e} \text{ (rather than } \hat{a}i\text{)} \\ \bar{a} + u/\bar{u} &\rightarrow \hat{o} \text{ (rather than } \hat{a}u\text{)} \\ \bar{a} + \text{ṛ} &\rightarrow ar \text{ (rather than } \bar{a}r\text{)}\end{aligned}$$

For example,

muninā iha (without sandhi)
→ *muninêha* (sandhi rule $\bar{a} + i \rightarrow \hat{e}$)
instead of expected *muninâiha* (wrong!!)

Second but:

The imperfect augment short (!) *a* before *i/ī/u/ū* does not lead to *ê* or *ô*, but *âi* and *âu*, respectively, instead. Examples:

- *na īkṣatê* (“he does not see”) → *nêkṣatê*, but
- *a-īkṣat* (“he did not see”) → *âikṣat*
- *tena uktam* (“it has been said of him”) → *tenôktam*, but
- *a-uṣ-ma* (imperfect “we wished”) → *âuṣ-ma* (from *vaś*, weak form)

Examples of vowel sandhi rules

- *anvartha* (“appropriate”) ← *anu* (“along”) + *artha* (“purpose, sense, wealth”)
- *vyartham* (“in vain”) ← *vi* (“apart, away”) + *artha* (“purpose, sense, wealth”)
- *āśvaśva* (“to have fast horses”) ← *āśu* (“fast”) + *aśva* (“horse”)
- *bhvādigaṇas* (“gaṇa consisting of *bhū* etc.”) ← *bhū* (“to be”) + *ādi* (“beginning”) + *gaṇa* (“cohort, flock, word group”)

Examples of vowel sandhi rules

- *vêdāntas* (“end of Vedic literature”) ← *vêda* (“theological knowledge, Veda”) + *anta* (“end”)
- *vātāyanam* (“window”) ← *vātas* (“wind”) + *ayanam* (“going, motion, hallway”, ← *i*)
- *rāmāyanam* (name of Indian epic) ← *rāma* (“name of Indian hero”) + *ayanam* (“going, motion, hallway”)
- *sārthas*, m. (“caravan”) ← *sa* (“together with”) + *ārthas* (“wealth”)
- *sānandas*, m. (“he with delight”) ← *sa* (“together with”) + *ānandas* (“delight”)
- *bhūtārthas*, m. (“fact, issue”) ← *bhūtā* (PPP of *bhū*) + *ārthas* (“meaning, purpose”)
- *gatāsu* (“with life gone away, dead”) ← *gata* (PPP of *gam*) + *asu* (“life”)

Examples of vowel sandhi rules

- *sam-upēta* (“provided with”) ← *sam* + *upa* + *ita* (PPP of *i*)
- *sēt* (“with *i*”) ← *sa* (“together with”) + *iṭ* (traditional expression for oi. *i*)
- *vēt* (“with or without *i*”) ← *vā* (“or”) + *iṭ* (traditional expression for oi. *i*)
- *prētyēha* (“in the hereafter and here”) ← *pra-i* (“to go forward, to die”) + *tya* (gerundive suffix) + *iha* (“here”)

Examples of vowel sandhi rules

- *atīta* (“gone by”) ← *ati* + *ita* (PPP of *i*)
- *atīva* (“exceedingly, very”) ← *ati* + *iva*
- *vi-parīta* (“perverse, false”) ← *vi* + *pari* + *ita* (PPP of *i*)

and

- *sūktam* (“well said, hymn”) ← *su* (“good”) + *uktam* (PPP of *vac*, “to say”)
- *bahūtkêpam* (“having thrown up ones arms”) ← *bahu* (“arm”) + *ud* (preposition, “up”) + full grade of *kêp* (“to throw”) + gerund ending *am*

Examples of vowel sandhi rules

- *êkôna vimśati* (“20-1, 19”) ← *êka* (“one, single”) + *ūna* (“incomplete”)
- *hitôpadêśas* (“20-1, 19”) ← *hita* (“well-being”, see *dhā*) + *upa-dêśas* (“teaching”, see *dīś*)
- *a-voc-a-t* (aorist, 3. pers. sg. of *vac*, “he said”) ← *a-va-uc-a-t*

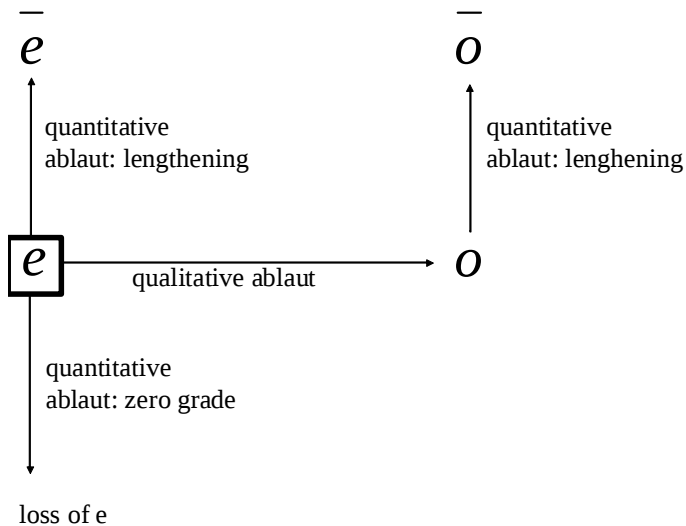
and

- *êkâikaśas*, adv. (“one by one”) ← *êka* (“one”) + *êka* + *śas* (“adverbial suffix”)

and

- *vanaukas* (“living in the forest, ascetic”) ← *vana* (“forest”) + *okas*, n. (“living place, homeland”)
- *divaukas* (“living in heaven, god”) ← *diva* (“heaven”) + *okas*, n. (“living place, homeland”)
- *uttamaujas* (“being of superior strength”) ← *uttama* (“highest, best”) + *ojas*, n. (“strength”)

Vowel gradation (ablaut)



Vowel gradation (ablaut)

- *svara* (this is our zero grade)
- *guṇa* (normal grade e or o-grade)
- *vr̥ddhi* (lengthened e-grade or the lengthened o-grade *ō*)

Example:

- *budh* is zero grade (also PPP: *bud-dha*)
- *bôdh-a-ti* is full grade
- *bâud-dha* (“concerning understanding, Buddhist”) is lengthened grade

Another example:

- *smṛ* is zero grade (also PPP: *smṛ-ta*)
- *smar-a-ti* is full grade

Vowel gradation (ablaut)

	just e	half vowel y	half vowel v
zero gr.	ie. - → oi. -	ie. <i>i</i> → oi. <i>i</i>	ie. <i>u</i> → oi. <i>u</i>
full gr.	ie. <i>e</i> → oi. <i>a</i>	ie. <i>ei</i> → oi. <i>ê/ay</i>	ie. <i>eu</i> → oi. <i>ô/av</i>
length. gr.	ie. <i>ē</i> → oi. <i>ā</i>	ie. <i>ēi</i> → oi. <i>âi/āy</i>	ie. <i>ēu</i> → oi. <i>âu/āv</i>

	<i>r</i>	<i>n</i>
zero gr.	ie. <i>ṛ</i> → oi. <i>ṛ</i>	ie. <i>ṇ</i> → oi. <i>a</i>
full gr.	ie. <i>er</i> → oi. <i>ar</i>	ie. <i>en</i> → oi. <i>an</i>
length. gr.	ie. <i>ēr</i> → oi. <i>ār</i>	ie. <i>ēn</i> → oi. <i>ān</i>

Vowel gradation (ablaut)

Examples:

- ie. *es “to be”
 - full grade *as-ti* (“he is”, compare Latin *est*)
 - zero grade *s-anti* (“they are”, compare Latin *sunt*).
- oi. *i* “to go”
 - full grade *êti* (“he goes”, with *ê* before consonant)
 - zero grade *y-anti* (“they go”, with consonant *y* before vowel).
- *vṛdh* (“to grow”)
 - full grade *vardhatê*
 - zero grade *vṛddhi* (funny)
- *man* (“to think”), also lat. FW *mental*
 - zero grade *matis* (“thought, idea”) and PPP *mata*
 - full grade *manas* n.
 - lengthened grade *mānaḥ* (“opinion, intent”)