

Deterrorizing Sanskrit

Perfect tense

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General remarks

The reduplicative perfect is

- strong for parasmāipada sg.,
- weak for dual, pl. or ātmanēpada.

Reduplication for the perfect works similar to that of 3. class verbs.

Compare

- for reduplicative perfect such as *da-d-us* with
- for imperfect of 3. class verbs, for example *a-da-d-us*

Strong forms

Strong forms are build with the qualitative ablaut, the *o*-grade:

- ie. *o* → *oi. a*
- ie. *oi* → *oi. ê*
- ie. *ou* → *oi. ô*

Here are a few examples:

oi. root	perfect, 3. pers. sg.
<i>bandh</i> ("to bind")	<i>ba-bandh-a</i>
<i>lih</i> ("to lick")	<i>li-lêh-a</i>
<i>dviṣ</i> ("to hate")	<i>di-dvêṣ-a</i>
<i>viṣ</i> ("to cut")	<i>vi-vêṣ-a</i>
<i>iṣ</i> ("to wish")	<i>iy-êṣ-a</i> (with <i>iy</i> instead of <i>i</i>)
<i>yuj</i> ("to yoke")	<i>yu-yôj-a</i>
<i>rud</i> ("to weep")	<i>ru-rôd-a</i>
<i>tud</i> ("to hit")	<i>tu-tôd-a</i>

Strong forms

Grassmann's law in

✓	perfect, 3. pers. sg.
<i>bhid</i> ("to split")	<i>bi-bhēd-a</i>
<i>chid</i> ("to cut")	<i>ci-cchēd-a</i> (sandhi rule!)

Remember Brugmann's law

ie. *o* in open syllable → *oi. ā*

In the above examples, this law was not to be applied. For example, *o* in **bhi-bhoid-a* is not in an open syllable (*i + d* are two consonants so that the syllable is closed).

Strong forms

Remember Brugmann's law

ie. *o* in open syllable → *oi. ā*

✓	perfect, 3. pers. sg.
<i>bhr</i> ("to bear")	<i>ba-bhār-a</i>
<i>pat</i> ("to fall")	<i>pa-pāt-a</i>
<i>śap</i> ("to curse")	<i>śa-śāp-a</i>
<i>car</i> ("to move")	<i>ca-cār-a</i>
<i>dah</i> ("to burn")	<i>da-dāh-a</i>
<i>bhaj</i> ("to worship")	<i>ba-bhāj-a</i>
<i>tan</i> ("to stretch")	<i>ta-tān-a</i>
<i>śru</i> ("to hear")	<i>śu-śrāv-a</i>
<i>svap</i> ("to sleep")	<i>su-śvāp-a</i> (ruki)
<i>su</i> ("to press")	<i>su-śāv-a</i> (ruki)
<i>i</i> ("to go")	<i>iy-āy-a</i> (<i>iy</i> instead of <i>i</i>)

Strong forms

Interestingly, we observe

✓	perfect, 3. pers. sg.	perfect, 1. pers. sg.
<i>tan</i>	<i>ta-tān-a</i> ← ie. * <i>te-ton-e</i>	<i>ta-tan-a</i> ie. * <i>te-ton-H₂e</i>

Here is the reason for the difference: Brugmann was applied

- in 3. pers. sg. with ie. ending *e* where the syllable *ton* is open, but
- not 1. pers. sg. with ie. ending *H₂e* where the syllable *ton* is closed. (Incidentally, we have the “incorrect” alternative *ta-tān-a* in Sanskrit, only, not in the older Vedic texts.)

Strong forms

Roots with initial half vowels

✓	perfect, 3. pers. sg.
<i>yaj</i> ("to sacrifice")	<i>i-yāj-a</i>
<i>vac</i> ("to say")	<i>u-vāc-a</i>
<i>vad</i> ("to say")	<i>u-vād-a</i>
<i>vap</i> ("to sow")	<i>u-vāp-a</i>
<i>vas</i> ("to dwell, to live")	<i>u-vās-a</i>
<i>vah</i> ("to carry")	<i>u-vāh-a</i>

Secondary palatalization in *u-vāc-a* (and in *yu-yōj-a* above)
The reason lies in the ie. ending *e* → *oi. a.*

Strong forms

Roots with initial a or ā

√	perfect, 3. pers. sg.
as ("to be")	ās-a
ah ("to say")	āh-a
āp ("to obtain")	āp-a
ās ("to eat")	āś-a

Strong forms

primary palatalization

For *hu* ("to sacrifice"), we have

ie. **ǵhu-ǵhou-e*

- **ǵu-ǵhou-e* (deaspiration)
- **ju-hou-e* (primary palatalization)
- *ju-hāv-a* (Brugmann)

Similarly,

\checkmark	perfect, 3. pers. sg.
<i>has</i> ("to laugh")	<i>ja-hās-a</i>
<i>hṛ</i> ("to take")	<i>ja-hār-a</i>

Strong forms

secondary palatalization

✓	perfect, 3. pers. sg.
<i>ji</i> ("to conquer")	<i>ji-ghāy-a</i>
<i>han</i> ("to fall")	<i>ja-ghān-a</i> ← ie. * <i>gʷ he-gʷ hon-e</i>
<i>kṛ</i> ("to do")	<i>ca-kār-a</i> ← ie. * <i>kʷ e-kʷ or-e</i>
<i>gam</i> ("to go")	<i>ja-gām-a</i> ← ie. * <i>gʷ e-gʷ om-e</i>
<i>kan</i> ("to dig")	<i>ca-khān-a</i>
<i>kṣip</i> ("to throw")	<i>ci-kṣēp-a</i>
<i>kṛt</i> ("to cut")	<i>ca-kart-a</i>

ie. **gʷ he-gʷ hon-e*

→ **gʷ e-gʷ hon-e* (deaspiration)

→ **je-ghon-e* (secondary palatalization)

→ *ja-ghān-a* (Brugmann)

Strong forms

secondary palatalization

Apparently, secondary palatalization spread to other verbs where it did not belong, originally, such as

✓	perfect, 3. pers. sg.
<i>kṣubh</i> ("to be agitated")	<i>cu-kṣôbh-a</i>
<i>krudh</i> ("to be angry")	<i>cu-krôdh-a</i>

Here, we have proportional analogy, for example

<i>kṣip</i>	with palatal reduplication:	<i>ci-kṣêp-a</i>
just as		
<i>kṣubh</i>	with palatal reduplication:	<i>cu-kṣôbh-a</i>

Strong forms

Some verbs have irregular perfect forms:

✓	perfect, 3. pers. sg.	"correct form"
<i>bhū</i>	<i>ba-bhūv-a</i>	<i>bu-bhav-a</i> ← ie. * <i>bhu-bhouH-e</i>
<i>pū</i>	<i>pu-pāv-a</i>	<i>pu-pav-a</i> ← ie. * <i>pu-pouH-e</i>
<i>bhī</i>	<i>bi-bhāy-a</i>	<i>bi-bhay-a</i> ← ie. * <i>bhi-bhoiH-e</i>

where none of the syllables *bhouH* through *bhoiH* is closed.

In *ba-bhūv-a*, the vowels seem to have been interchanged?

Strong forms

Note also a few (laryngeal!) verbs with

3. pers. sg. ending $\hat{a}u$ and

weak forms

\checkmark	perfect, 3. pers. sg.
<i>dā</i> ("to give")	<i>da-d-âu</i>
<i>dhā</i> ("to set, to put")	<i>da-dh-âu</i>
<i>sthā</i> ("to stand")	<i>ta-sth-âu</i>
<i>jñā</i> ("to know")	<i>ja-jñ-âu</i>
<i>pā</i> ("to drink")	<i>pa-p-âu</i>
<i>mā</i> ("to measure")	<i>ma-m-âu</i>
<i>bhā</i> ("to shine")	<i>ba-bh-âu</i>

Weak forms

root vowel i

✓	perfect, 3. pers. sg.	perfect, 3. pers. pl.
<i>viś</i> ("to cut")	<i>vi-vēś-a</i>	<i>vi-viś-us</i>
<i>lih</i> ("to lick")	<i>li-lēh-a</i>	<i>li-lih-us</i>
<i>dviś</i> ("to hate")	<i>di-dvēś-a</i>	<i>di-dviś-us</i>
<i>bhid</i> ("to split")	<i>bi-bhēd-a</i>	<i>bi-bhid-us</i>
<i>chid</i> ("to cut")	<i>ci-cchēd-a</i> (sandhi)	<i>ci-cchid-us</i> (sandhi)
<i>vyadh</i> ("to Pearce")	<i>vi-vyādh-a</i>	<i>vi-vidh-us</i>
<i>ji</i> ("to conquer")	<i>ji-ghāy-a</i>	<i>ji-ghy-us</i>
<i>kṣip</i> ("to throw")	<i>ci-kṣēp-a</i>	<i>ci-kṣip-us</i>

Weak forms

root vowel u

✓	perfect, 3. pers. sg.	perfect, 3. pers. pl.
<i>yuj</i>	<i>yu-yôj-us</i>	<i>yu-yuj-us</i>
<i>rud</i>	<i>ru-rôd-a</i>	<i>ru-rud-us</i>
<i>tud</i>	<i>tu-tôd-us</i>	<i>tu-tud-us</i>
<i>śru</i>	<i>śu-śrāv-a</i>	<i>śu-śruv-us</i> (<i>uv</i> instead of <i>v</i>)
<i>svap</i>	<i>su-śvāp-a</i> (ruki)	<i>su-śup-us</i> (ruki)
<i>su</i>	<i>su-śāv-a</i> (ruki)	<i>su-śuv-us</i> (ruki, <i>uv</i> instead of <i>v</i>)
<i>kṣubh</i>	<i>cu-kṣôbh-a</i>	<i>cu-kṣubh-us</i>
<i>krudh</i>	<i>cu-krôdh-a</i>	<i>cu-krudh-us</i>

Weak forms

root vowel a

✓	perfect, 3. pers. sg.	perfect, 3. pers. pl.
<i>bhṛ</i> ("to bear")	<i>ba-bhār-a</i>	<i>ba-bhr-us</i>
<i>dah</i> ("to burn")	<i>da-dāh-a</i>	<i>da-dah-us</i>
<i>han</i> ("to kill")	<i>ja-ghān-a</i>	<i>ja-ghn-us</i>
<i>kr</i> ("to do")	<i>ca-kār-a</i>	<i>ca-kr-us</i>
<i>gam</i> ("to go")	<i>ja-gām-a</i>	<i>ja-gm-us</i>
<i>kan</i> ("to dig")	<i>ca-khān-a</i>	<i>ca-khn-us</i>
<i>hr</i> ("to take")	<i>ja-hār-a</i>	<i>ja-hr-us</i>

Weak forms

root vowel a and irregular full grade

- *ba-bandh-us* ("they bound") for "correct" *ba-badh-us* (due to syllabic $\eta \rightarrow a$) and
- *ja-has-us* ("they laughted") for "correct" *jahs-us* (difficult to understand)
- *ca-kart-us* ("they cut") for "correct" *ca-kṛt-us*

Weak forms

root with initial half vowels

ī or *ū* as expected in

✓	perfect, 3. pers. sg.	perfect, 3. pers. pl.
<i>yaj</i> ("to sacrifice")	<i>i-yāj-a</i>	<i>īj-us</i>
<i>vac</i> ("to say")	<i>u-vāc-a</i>	<i>ūc-us</i>
<i>vad</i> ("to say")	<i>u-vād-a</i>	<i>ūd-us</i>
<i>vap</i> ("to sow")	<i>u-vāp-a</i>	<i>ūp-us</i>
<i>vas</i> ("to dwell, to live")	<i>u-vās-a</i>	<i>ūṣ-us</i> (ruki)
<i>vah</i> ("to carry")	<i>u-vāh-a</i>	<i>ūh-us</i>

Weak forms

root with initial half vowels

Similarly, these two *i*-roots produce the analogous weak forms:

\checkmark	perfect, 3. pers. sg.	perfect, 3. pers. pl.
<i>i</i>	<i>iy-āy-a</i> (<i>iy</i> instead of <i>i</i> or <i>y</i>)	<i>īy-us</i> (<i>īy</i> instead of <i>ī</i> or <i>y</i>)
<i>is</i>	<i>iy-ēs-a</i> (<i>iy</i> instead of <i>i</i> or <i>y</i>)	<i>īs-us</i>

Weak forms

root with initial a or ā

Root with initial vowels a or ā reduplicate with a. Then, ā is the expected sandhi result for *āp* ("to obtain") where we get *āp-us*. The other verbs also show long ā, but should not:

✓	perfect, 3. pers. sg.	perfect, 3. pers. pl.
<i>as</i> ("to be")	<i>ās-a</i>	<i>ās-us</i> ("wrong")
<i>ah</i> ("to say")	<i>āh-a</i>	<i>āh-us</i> ("wrong")
<i>āp</i> ("to obtain")	<i>āp-a</i>	<i>āp-us</i>
<i>aś</i> ("to eat")	<i>āś-a</i>	<i>āś-us</i> ("wrong")

Weak forms

no reduplication?

✓	3. pers. sg.	3. pers. pl.	3. pers. sg. $\bar{a}tm.$
<i>pat</i>	<i>pa-pāt-a</i>	<i>pēt-us</i>	
<i>śap</i>	<i>śa-pāt-a</i>	<i>śēp-us</i>	
<i>naś</i>	<i>na-nāś-a</i>	<i>nēś-us</i>	
<i>bhaj</i>	<i>ba-bhāj-a</i>	<i>bhēj-us</i>	
<i>tan</i>	<i>ta-tān-a</i>	<i>tēn-us</i>	
<i>man</i>			<i>mēnē</i>
<i>labh</i>			<i>lēbhē</i>
<i>ram</i>			<i>rēmē</i>
<i>sad</i>	<i>sa-sād-a</i>	<i>sēd-us</i>	
<i>yat</i>			<i>yētē</i>

Weak forms

no reduplication?

But: *sad* ("to fall") yields

- ie. **se-sd-* (reduplication with ie. e and zero grade)
- *sa-zd-* (*s-z* law before voiced cons.)
- *sêd-*

and *yat* ("to try, to exert") yields

- ie. **ye-it-* (reduplication with ie. e and zero grade)
- *yêt-*

Analogy:

<i>sad</i>	with ê instead of reduplication:	<i>sêd-us</i>
just as		
<i>pat</i>	with ê instead of reduplication:	<i>pêt-us</i>