E. Declensions

E.1. Nouns: categories

E.1.1. Distribution of weak and strong forms

A nominal "stem" is the basis from which (many) other forms are derived. As an example, consider the adjective with stem *bala-vant*. It can be used to build the accusative singular *bala-vant-am* (which is a "strong form") and the instrumental singular *bala-vat-ā* (a "weak form"). Here, "strong" and "weak" refer to suffixes, not to verbal roots. Nouns whose stem ends in a consonant often distinguish between weak and strong forms. Strong forms typically take the full grade of a suffix and weak forms the zero grade of the suffix. In particular, masculine (m.) and feminine (f.) nouns show strong forms in nominative (nom.), vocative (voc.), and accusative (acc.) with the exception of acc. pl. These three cases are sometimes abbreviated by NVA. Neuter (n.) nouns exhibit strong forms in the pl. forms of NVA cases. All other forms are weak. In figure E.1 the strong forms are marked.

E.1.2. Characteristics of vocalic and consonantal nouns

For the purposes of this book[8], I distinguish between vocalic and consonantal nouns in the following manner:

	stem ends in	weak/strong	acc. pl. m.	acc. pl. f.	gen. pl.
cons. nouns	a consonant	sometimes	*as*	*as*	*ām*
voc. nouns	a vowel *V*	never	$\bar{V}n$ (1)	$\bar{V}s$	$\bar{V}n\bar{a}m$ (2)

1. $\bar{V}n \leftarrow Vns$ (**CpL*s***)
2. $\bar{V}n\bar{a}m \leftarrow VHn\bar{o}m$ (**Lar_ *V***)

It seems that the f. sg. endings are characterised by

	acc.	dative	abl./gen.	locative
cons. nouns	*am* (as also m. nouns)	*ê*	*as*	*i*
voc. nouns	*m* (as also m. nouns)	$\hat{a}i \leftarrow a + \hat{e}$	$\bar{a}s \leftarrow a + as$	*ām*

[8] Note, however, that Fortson IV (2004, chapter 6) and other Indo-European scholars use the term "thematic nouns" in the sense of *a* and *ā* stems (subsection E.3.10).

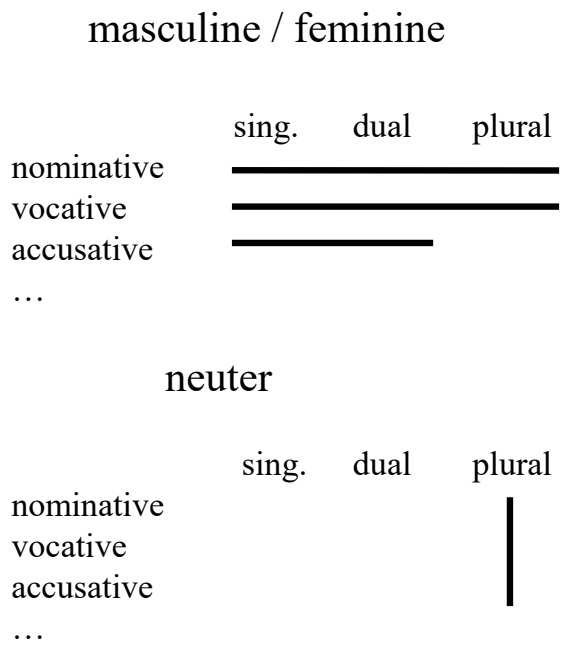

Figure E.1.: Strong forms in consonant-final nouns

E.1.3. Consonantal nouns

Quite a few classes of nouns have stems ending in consonants. Distinguish between consonantal nouns with

- ◇ one stem, such as *marut* (“wind”) (no weak-strong alternation)
- ◇ stems in *mant, vant, ant*, such as *bala-vant* (“he who has strength”)
- ◇ *an* stems, such as *rāj-an* (“king”)
- ◇ *in* stems, such as *yôg-in* (“yogi”) (no weak-strong alternation)
- ◇ stems in long diphthongs, such as *râi* (“wealth”) and *glâu* (“moon”)

E.1.4. Vocalic nouns

Many classes of nouns exhibit stems ending in vowels or, very rarely, diphthongs. They do not show the weak-strong alternation indicated by the above figure. Remember the convention for citing nouns given in subsection A.7, pp. 9:

- ◇ *a* stems
  - *dêva*

- *phalam*

◇ *ā* stems, such as *sênā*

◇ *i* stems

- m., such as *muni*
- f., such as *mati*

◇ *u* stems

- m., such as *guru*
- f., such as *dhênu*

◇ *ī* stems, such as *nadī*

◇ *ū* stems, such as *camū*

E.1.5. Hybrid nouns

ṛ stems, such as

◇ m. agent nouns, such as *nê-tar* (“leader”)

◇ kinship nouns, such as *pitar* (“father”) or *mātar* (“mother”)

have characteristics of both consonantal and vocalic nouns:

	stem ends in	weak/strong	acc. pl. m.	acc. pl. f.	gen. pl.
cons. nouns	*C*: *pitar*	yes			
voc. nouns	*V*: *pitṛ*		*pitṝn*	*mātṝs*	*pitṝṇām*

E.2. Nouns: endings

E.2.1. A few general remarks

Endings found in all declensions

In all declensions, observe

any stem	case	sg.	dual	pl.
	nom.		iden-	iden-
	voc.			tical
	acc.		tical	

any stem	case	sg.	dual	pl.
	instr.		*-bhyām*	
	dat.		*-bhyām*	*-bhyas*
	abl.		*-bhyām*	*-bhyas*
	gen.		*-ôs*	*-ām*
	loc.		*-ôs*	*-su*

In the following subsections, similarities found across declensions are highlighted. Thus prepared, individual declensions can be dealt with.

Neutral endings NVA

With the exception of neuter *a* nouns (like *phalam*), all n. endings nom., voc., and acc. (NVA) are the same for sg., the same for dual, and the same for pl., respectively. For example, consider

jagat n. ("world")	case	sg.	dual	pl.
	nom.	*jagat*	*jagat-ī* (1)	***jagant-i***
	voc.	*jagat*	*jagat-ī* (1)	***jagant-i***
	acc.	*jagat*	*jagat-ī* (1)	***jagant-i***
	instr.	*jagat-ā*	*jagad-bhyām*	*jagad-bhis*

or

vanam ("forest")	case	sg.	dual	pl.
	nom.	*van-a-m*	*van-ê* (1)	*van-āni*
	voc.	*van-a* (2)	*van-ê* (1)	*van-āni*
	acc.	*van-a-m*	*van-ê* (1)	*van-āni*
	instr.	*van-êna*	*van-ā-bhyām*	*van-âis*

1. $\bar{\imath}$ from IE dual ending ih_2 is typical for dual NVA. Compare *jagat-ī* with *vanê* ← *vana-ī* (**VS** 2. line).

2. Voc. sg. *vana* equals the stem, but not nom. sg.

s in masculine and feminine nominative singular

Originally, *s* was the IE marker for nom. sg., both m. and f. When this *s* was joined to a final consonant, compensatory lengthening (**CpL*s***) could result. Note that n. sg. had no special ending. The following examples concern only m. nouns:

u.at. *bala-vant-s*	→	u.at. *bala-vann-s*	→	OI *bala-vān*
u.at. *su-man-as-s*	→	OI *su-man-ās*		
u.at. *gir-s*	→	OI *gīr*		

Unfortunately, this model does not always work:

u.at. *gach-ant-s*	→	OI *gach-an* (**CCl**)
u.at. *nêt-ar-s*	→	OI *nêt-ā* (**CpL__*an-in-ar***)
u.at. *rāj-an-s*	→	OI *rājā* (**CpL__*an-in-ar***)
u.at. *yôg-in-s*	→	OI *yôgī* (**CpL__*an-in-ar***)

E.2.2. Locative singular

Locative singular with *i*

Across many declensions, both vocalic and consonantal, the loc. sg. is expressed by *i* (the here-and-now particle). See

◇ stem *tvad* pers. pronoun ("you") with loc. sg. *tvayi*

◇ stem *mad* pers. pronoun ("I") with loc. sg. *mayi*

◇ stem *man-as* n. ("mind") with loc. sg. *man-as-i*

◇ stem *marut* m. ("wind") with loc. sg. *marut-i*

◇ stem *rāj-an* m. ("king") with loc. sg. *rāj-ñ-i* or *rāj-an-i*

◇ stem *hast-in* m. ("elephant") with loc. sg. *hast-in-i*

In the *a* declension m. or n., apply **VS** (line 2) and find

◇ *dêv-a* m. ("god") with loc. sg. *dêv-ê* ← u.at. *dêv-a-i*

◇ *van-a-m* n. ("forest") with loc. sg. *van-ê* ← u.at. *van-a-i*

Locative singular with *âu*

âu occurs less often. Consider the m. nouns

◇ stem *gur-u* m. ("teacher") with loc. sg. *gur-âu*

◇ stem *mat-i* f. ("mind") with loc. sg. *mat-âu* (and also with *mat-y-ām*)

◇ stem *mun-i* m. ("wise man") with loc. sg. *mun-âu*

◇ stem *pat-i* m. ("husband") with loc. sg. *pat-y-âu*

Locative singular with *ām*

Feminine nouns tend to exhibit loc. sg. ending *ām*:

◇ stem *nad-ī* f. (“river”) with loc. sg. *nad-y-ām*

◇ stem *lat-ā* f. (“vine”) with loc. sg. *lat-ā-y-ām*

◇ stem *vadh-ū* f. (“bride”) with loc. sg. *vadh-v-ām*

Some f. nouns on *i* and *u* take the ending from the feminine in long vowels, i.e., from *vadh-ū*/*nad-ī*:

◇ stem *dhên-u* f. (“cow”) with loc. sg. *dhên-v-ām*

◇ stem *mat-i* f. (“mind”) with loc. sg. *mat-y-ām*

or from the corresponding m. nouns in short vowels, i.e., from *gur-u*/*mun-i*:

◇ stem *dhên-u* f. (“cow”) with loc. sg. *dhên-âu*

◇ stem *mat-i* f. (“mind”) with loc. sg. *mat-âu*

E.2.3. Locative pl. with *su*

The *su* locative is to be found nearly everywhere and often gives rise to **RUKI**:

◇ stem *gur-u* m. (“teacher”) with loc. pl. *gur-u-ṣu*

◇ stem *tvad* pers. pronoun (“you”) with loc. pl. *yuṣmā-su*

◇ stem *nad-ī* f. (“river”) with loc. pl. *nad-ī-ṣu*

◇ stem *pat-i* m. (“husband”) with loc. pl. *pat-i-ṣu*

◇ stem *mat-i* f. (“mind”) with loc. pl. *mat-i-ṣu*

◇ stem *mad* pers. pronoun (“I”) with loc. pl. *asmā-su*

◇ stem *man-as* n. (“mind”) with loc. pl. *man-as-su*/*man-aḥ-su*

◇ stem *marut* m. (“wind”) with loc. pl. *marut-su*

◇ stem *mun-i* m. (“wise man”) with loc. pl. *mun-i-ṣu*

◇ stem *rāj-an* m. (“king”) with loc. pl. *rāj-a-su*

◇ stem *lat-ā* f. (“vine”) with loc. pl. *lat-ā-su*

◇ stem *vadh-ū* f. (“bride”) with loc. pl. *vadh-ū-ṣu*

◇ stem *hast-in* m. (“elephant”) with loc. pl. *hast-i-ṣu*

In the *a* declension m. or n., note *ê* instead of *a*:

◇ *dêv-a* m. (“god”) with loc. pl. *dêv-ê-ṣu*

◇ *van-a-m* n. (“forest”) with loc. pl. *van-ê-ṣu*

E.2.4. Genitive plural

There two different genitive forms:

◇ *ām* for consonantal nouns

◇ *nām* for vocalic nouns including those on *ṛ*. Since *nām* lengthens the thematic vowels, *nām* may go back to IE *Hnōm* (**Lar_ *V***).

Thus, consider the consonantal genitive plurals:

◇ stem *manas* n. (“mind”) with gen. pl. *manas-ām*

◇ stem *marut* m. (“wind”) with gen. pl. *marut-ām*

◇ stem *rāj-an* m. (“king”) with gen. pl. *rāj-ñ-ām* with forward assimilation

◇ stem *hast-in* m. (“elephant”) with gen. pl. *hast-in-ām*

and the vocalic genitive plurals

◇ stem *gur-u* m. (“teacher”) with gen. pl. *gur-ū-ṇām*

◇ stem *dêv-a* m. (“god”) with gen. pl. *dêv-ā-nām*

◇ stem *nad-ī* f. (“river”) with gen. pl. *nad-ī-nām* (where *ī* is long anyway)

◇ stem *pat-i* m. (“husband”) with gen. pl. *pat-ī-nām*

◇ stem *mat-i* f. (“mind”) with gen. pl. *mat-ī-nām*

◇ stem *mun-i* m. (“wise man”) with gen. pl. *mun-ī-nām*

◇ stem *lat-ā* f. (“vine”) with gen. pl. *lat-ā-nām* (where *ā* is long anyway)

◇ stem *vadh-ū* f. (“bride”) with gen. pl. *vadh-ū-nām* (where *ū* is long anyway)

◇ *van-a-m* (“forest”) n. with gen. pl. *van-ā-nām*

Pronouns are often different:

◇ stem *tad* 3. pers. pronoun (“he, she, that”) with gen. pl.

- m. and n. *têṣām*
- f. *tāsām*

◇ stem *tvad* pers. pronoun ("you") with gen. pl. *yuṣmā-kam*

◇ stem *mad* pers. pronoun ("I") with gen. pl. *asmā-kam*

E.2.5. Accusatives with *m*

For the m. nouns, observe

	singular		plural	
	vocalic	consonantal	vocalic	consonantal
nom.	**-o-s* → *-a-s*	**-s* → ∅	**-o-es* → **-ōs* → *-ās*	**-es* → *-as*
example	*dêv-a-s* (1)	*marut* (1)	*dêv-ās* (3)	*marut-as* (3)
acc.	**-o-m* → *-a-m*	analogy	**-ons* → *-ān* (4)	**-ns* → *-as*
example	*dêv-a-m* (2)	*marut-am* (2)	*dêv-ān* (4)	*marut-as* (4)

1. Nom. sg. of both m. (here) and f. are characterised by *s* which
   ◇ is clearly seen in vocalic nouns, such as *dêv-a-s*, but
   ◇ is often lost in consonantal nouns due to **CCl**, for example *marut-s* → *marut*

2. Acc. sg. m. (here) and f. are characterised by m. *marut-am* borrows thematic vowel in order to avoid unrecognisable u.at. *maruta* ← *marut*$\underset{\circ}{m}$. Just consider an analogy such as

vāt-a-s ("wind")	with acc. sg.:	*vāt-a-m*
just as		
marut ("wind")	with acc. sg.:	*marut-am*

3. The nom. pl. forms can be explained by

marut-as	←	stem				+	IE pl. marker *e*	+	IE nom. marker *s*
dêv-ās	←	stem	+	IE them. *o*	+	IE pl. marker *e*	+	IE nom. marker *s*	

4. The acc. pl. forms are derived by

marut-as	←	stem				+	IE acc. marker $\underset{\circ}{n}$	+	IE pl. marker *s*	
dêv-ān	←	stem	+	IE them. *o*	+	IE acc. marker *n*	+	IE pl. marker *s*		

   where **-ons* → *-ān* follows from **CpL*s***. Note that *s* is still present in the sandhi rule described on p. 42.

E.3. Nouns: weak and strong forms

E.3.1. Introductory remark and overview

Most nouns in the list below differentiate between strong and weak forms:

◇ one-stem nouns with three categories:
- the most simple case like *marut* ("wind")
- nouns like *sam-rāj* ("ruler"), *vāc* ("voice, word"), *kāma-duh* ("wish-granting cow"), and *a-budh* ("fool") on pp. 231
- neuter *as* nouns like *man-as* on pp. 234

◇ stems in *ant* like *bala-vant* ("he who has strength"), *mahant* ("great"), *bhar-a-nt* (pres.P), *jagat* ("world"), and *bhav-ant* ("your honor") on pp. 237

◇ *an* stems like m. *rāj-an* ("king"), n. *nām-an* ("name"), and n. *karm-an* ("deed") on pp. 245

◇ *in* stems like *yôg-in* ("yogi") and *tapas-vin* ("ascetic") on pp. 249

◇ m. nouns like *nê-tar* ("leader") on pp. 251

◇ kinship nouns like *pitar* ("father") and *mātar* ("mother") on pp. 252

◇ stems in long diphthongs like *râi* ("wealth") and *glâu* ("moon") on pp. 254

◇ f. *ī*- and *ū* stems like *nad-ī* ("river"), *vadh-ū* ("bride"), *bhū* ("earth"), *dhī* ("intellect"), and *strī* ("woman") together with the two m. (!) compounds *su-dhī* ("intelligent") and *prati-bhū* ("guarantor") on pp. 256

◇ *i* and *u* stems like m. *mun-i* ("wise man"), f. *mat-i* ("mind"), m. *gur-u* ("teacher"), f. *dhên-u* ("cow"), n. *madh-u* ("honey"), and m. *pat-i* ("husband") on pp. 261

◇ n. *ṛ* stems like *gant-ṛ* on pp. 267

◇ *a* and *ā* stems like m. *dêv-a,* n. *phal-am*, and f. *sênā* on pp. 267

E.3.2. One stem, only

marut

Some nouns have one stem only, i.e., they do distinguish strong and weak forms. An example is provided by the word for "wind":

marut	case	sg.	dual	pl.
	nom.	*marut* (1)	*marut-âu* (9)	*marut-as* (6, 7)
	voc.	*marut* (2)	*marut-âu* (9)	*marut-as* (6, 7)
	acc.	*marut-am* (3)	*marut-âu* (9)	*marut-as* (6, 7)
	instr.	*marut-ā* (4)	*marud-bhyām* (10, 11)	*marud-bhis* (10, 12)
	dat.	*marut-ê* (5)	*marud-bhyām* (10, 11)	*marud-bhyas* (10, 11)
	abl.	*marut-as* (6)	*marud-bhyām* (10, 11)	*marud-bhyas* (10, 11)
	gen.	*marut-as* (6)	*marut-ôs* (11)	*marut-ām* (11)
	loc.	*marut-i* (8)	*marut-ôs* (11)	*marut-su* (11)

1. Nom. sg., both m. and f., are usually characterised by *s*. Here, note *marut-s* → *marut* due to **CCl**.
2. As is the case here, the voc. sg. often equals the stem.
3. The acc. sg. marker is *m* in many declensions. Here, *a* is borrowed from vocalic declensions in order to avoid u.at. *marut-a*.
4. *ā* is the instr. sg. marker in many other declensions, too.
5. *ê* is the dat. sg. marker in many other declensions, too.
6. Observe *as* in
   - ◇ abl. and gen. sg. and
   - ◇ NVA pl.

   This is often the case in consonantal declensions, m. (as here) and f.
7. For the pl. *marut-as* forms, see pp. 228.
8. *i* is the typical loc. sg. marker in consonantal declensions for all three genders.
9. *âu* is the typical ending for NVA dual in consonantal declensions for m. and f. It also shows in m. *a* declension (*dêv-âu*) and in pronouns like *t-âu* and *sarv-âu*.
10. *t* is made voiced before voiced *bh* in some dual and pl. cases.
11. Some forms shown in *marut* are seen in every declension whatsoever (p. 223):
    - ◇ dual instr., dat., and abl. *bhyām*
    - ◇ dual gen. and loc. *ôs*
    - ◇ pl. dat. and abl. *bhyas*

- ◇ pl. gen. *ām* (for consonantal nouns, while *V̄nām* is seen in vocalic ones as in *phalānām*)
- ◇ pl. loc. *su*

12. *bhis* is very typical for instr. pl. for any kind of declensions. (However, m. and n. *a* declension use *âis* instead, see *dêv-âis* and *van-âis*. The same holds for most pronouns. *t-âis* and *sarv-âis* are both m. and n.)

The *marut* pattern holds for m. and f. nouns or adjectives, such as

	stem	nom. sg.	instr. pl.	translation
like *marut*	*paśu-gup*	*paśu-gup*	*paśu-gub-bhis*	protector of animals
	sarit	*sarit*	*sarid-bhis*	river
	sarva-śak	*sarva-śak*	*sarva-śag-bhis*	all-rounder

samrāj etc. with soundlaw AFP

According to **AFP** (pp. 47), the following word-final consonants are disallowed:

- ◇ voiced stops
- ◇ aspirated stops
- ◇ palatals *c* (also a stop) and *ś*
- ◇ aspirate *h*

Mostly, the "closest" unvoiced and unaspirated stop is taken instead. Since *c* is disallowed, it is changed into *k* or *ṭ* instead, and so are *j*, *ś*, and *h*. Taking these rules into account, one obtains paradigms close to the one for *marut*.

Consider *samrāj* m. ("ruler") and *vāc* f. ("voice, word"). Both show astonishing long *ā*. One explanation may be

- ◇ compensatory lengthening for nom. sg. *s* together with
- ◇ spreading to the other forms.

For *samrāj*, consider

samrāj m.	case	sg.	dual	pl.
	nom.	*samrāṭ* (2)	*samrāj-âu* (1)	*samrāj-as* (1)
	voc.	*samrāṭ* (2)	*samrāj-âu* (1)	*samrāj-as* (1)
	acc.	*samrāj-am* (1)	*samrāj-âu* (1)	*samrāj-as* (1)

samrāj m.	case	sg.	dual	pl.
	instr.	*samrāj-ā* (1)	*samrāḍ-bhyām* (3)	*samrāḍ-bhis* (3)
	dat.	*samrāj-ê* (1)	*samrāḍ-bhyām* (3)	*samrāḍ-bhyas* (3)
	abl.	*samrāj-as* (1)	*samrāḍ-bhyām* (3)	*samrāḍ-bhyas* (3)
	gen.	*samrāj-as* (1)	*samrāj-ôs* (1)	*samrāj-ām* (1)
	loc.	*samrāj-i* (1)	*samrāj-ôs* (1)	*samrāṭ-su* (3)

1. The stem *samrāj* occurs before the vowel endings.
2. Unvoiced *samrāṭ* is seen in word-final position (nom. and voc. sg.).
3. *Samrāḍ-bhyām* and *samrāṭ-su* are instances of backward assimilation before consonantal endings.

Similar to *samrāj*, one obtains

vāc f.	case	sg.	dual	pl.
	nom.	*vāk* (2)	*vāc-âu* (1)	*vāc-as* (1)
	voc.	*vāk* (2)	*vāc-âu* (1)	*vāc-as* (1)
	acc.	*vāc-am* (1)	*vāc-âu* (1)	*vāc-as* (1)
	instr.	*vāc-ā* (1)	*vāg-bhyām* (3)	*vāg-bhis* (3)
	dat.	*vāc-ê* (1)	*vāg-bhyām* (3)	*vāg-bhyas* (3)
	abl.	*vāc-as* (1)	*vāg-bhyām* (3)	*vāg-bhyas* (3)
	gen.	*vāc-as* (1)	*vāc-ôs* (1)	*vāc-ām* (1)
	loc.	*vāc-i* (1)	*vāc-ôs* (1)	*vāk-ṣu* (4)

1. The stem *vāc* is lengthened from *vac* ← IE vek^w, perhaps due to **CpL*s***. By **SPal** or levelling, one finds *vāc* before vowel endings (some of which have to be front vowel endings).
2. Regularly, **AFP** leads to *vāk* in absolute final position.
3. Backwardly assimilated *g* before voiced endings.
4. **BA** and **RUKI**

Along similar lines, **AFP** implies

	stem	nom. sg.	instr. pl.	translation
with $c \to k$	*ṛc*	*ṛk*	*ṛg-bhis*	hymn, verse
	tvac	*tvak*	*tvag-bhis*	skin
	śuc	*śuk*	*śug-bhis*	grief
with $j \to k$	*vaṇij*	*vaṇik*	*vaṇig-bhis*	merchant
	bhiṣaj	*bhiṣak*	*bhiṣag-bhis*	doctor
with $ś \to k$	*diś*	*dik*	*dig-bhis*	direction

and

	stem	nom. sg.	instr. pl.	translation
with $d \to t$	*dṛṣad*	*dṛṣat*	*dṛṣad-bhis*	stone
	vêda-vid	*vêda-vit*	*vêda-vid-bhis*	Veda knower
with $ś/ṣ/h \to ṭ$	*dviṣ*	*dviṭ*	*dviḍ-bhis*	enemy
	pari-vrāj	*pari-vrāṭ*	*pari-vrāg-bhis*	mendicant
	prā-vṛṣ	*prā-vṛṭ*	*prā-vṛḍ-bhis*	rain period
	madhu-lih	*madhu-liṭ*	*madhu-liḍ-bhis*	honey sucker
	viś	*viṭ*	*viḍ-bhis*	merchant-caste person

Interesting declensions arise from Grassmann's law and from instances where it is **not** applied, as also seen in future forms on pp. 111. Examples are provided by *kāma-duh* f. ("wish-granting cow") or *a-budh* m. ("fool"). The first one yields

kāma-duh f.	case	sg.	dual	pl.
	nom.	*kāma-dhuk* (2, 3)	*kāma-duh-âu* (1)	*kāma-duh-as* (1)
	voc.	*kāma-dhuk* (2, 3)	*kāma-duh-âu* (1)	*kāma-duh-as* (1)
	acc.	*kāma-duh-am* (1)	*kāma-duh-âu* (1)	*kāma-duh-as* (1)
	instr.	*kāma-duh-ā* (1)	*k.-dhug-bhyām* (2, 4)	*k.-dhug-bhis* (2, 4)
	dat.	*kāma-duh-ê* (1)	*k.-dhug-bhyām* (2, 4)	*k.-dhug-bhyas* (2, 4)
	abl.	*kāma-duh-as* (1)	*k.-dhug-bhyām* (2, 4)	*k.-dhug-bhyas* (2, 4)
	gen.	*kāma-duh-as* (1)	*kāma-duh-ôs* (1)	*kāma-duh-ām* (1)
	loc.	*kāma-duh-i* (1)	*kāma-duh-ôs* (1)	*kāma-dhuk-ṣu* (2, 5)

1. By **DA**, one obtains the stem *kāma-duh*, where the second part originates from IE **dheugh* (*h* due to **SPal** before front vowels or levelling).

2. IE *dh* is retained in forms where *gh* was replaced by unaspirated (!) velar before a consonant or in word-final position. Hence, **DA** does not apply.
3. *k* in word-final position (**AFP**)
4. *g* before voiced endings (**BA**)
5. *k* before loc. pl. ending with voiceless *s* (**BA**) which would then turn into *ṣ* by **RUKI**

Turn to the second example where Grassmann's law and its undoing play a role:

a-budh	case	sg.	dual	pl.
	nom.	*a-bhut* (2, 3)	*a-budh-âu* (1)	*a-budh-as* (1)
	voc.	*a-bhut* (2, 3)	*a-budh-âu* (1)	*a-budh-as* (1)
	acc.	*a-budh-am* (1)	*a-budh-âu* (1)	*a-budh-as* (1)
	instr.	*a-budh-ā* (1)	*a-bhud-bhyām* (1, 2, 4)	*a-bhud-bhis* (1, 2, 4)
	dat.	*a-budh-ê* (1)	*a-bhud-bhyām* (1, 2, 4)	*a-bhud-bhyas* (1, 2, 4)
	abl.	*a-budh-as* (1)	*a-bhud-bhyām* (1, 2, 4)	*a-bhud-bhyas* (1, 2, 4)
	gen.	*a-budh-as* (1)	*a-budh-ôs* (1)	*a-budh-ām* (1)
	loc.	*a-budh-i* (1)	*a-budh-ôs* (1)	*a-bhut-su* (2)

1. By **DA**, one obtains the stem *a-budh*, where the second part originates from IE **bheudh*. These forms closely follow the *marut* pattern.
2. IE *bh* is retained in forms where *dh* was replaced by unaspirated (!) dental before a consonant or where *dh* was in word-final position. Hence, **DA** does not apply.
3. *t* in word-final position (**AFP**)
4. *d* before voiced endings (**BA**). Aspiration shift, but *bh* aspirated already.

E.3.3. Neuter stems in *as*, *is*, and *us*

Similar to *marut* are neuter nouns like *manas* or *havis*. They are two-stem nouns and exhibit strong forms in the pl. forms of NVA cases.

manas n.	case	sg.	dual	pl.
	nom.	*manas* (1)	*manas-ī* (3)	***manāṃs-i*** (4)
	voc.	*manas* (1)	*manas-ī* (3)	***manāṃs-i*** (4)

manas n.	case	sg.	dual	pl.
	acc.	*manas* (1)	*manas-ī* (3)	***manāṃs-i*** (4)
	instr.	*manas-ā* (2)	*mano-bhyām* (2, 5)	*mano-bhis* (2, 5)
	dat.	*manas-ê* (2)	*mano-bhyām* (2, 5)	*mano-bhyas* (2, 5)
	abl.	*manas-as* (2)	*mano-bhyām* (2, 5)	*mano-bhyas* (2, 5)
	gen.	*manas-as* (2)	*manas-ôs* (2)	*manas-ām* (2)
	loc.	*manas-i* (2)	*manas-ôs* (2)	*manas-su/manaḥ-su* (2, 6)

1. The stem *manas* serves as NVA singular.
2. Building on the stem, many forms follow the *marut* pattern (p. 230).
3. Expected long *ī* in n. dual NVA
4. NVA pl. is difficult, but partly explainable by sound law ***Ns*** and by analogy with other n. pl. NVA forms like *karm-āṇ-i, gant-ṝṇ-i, tapas-vīn-i, phal-ā-ni, madh-ūn-i,* and *vid-vāṃs-i*, all of them with long vowel followed by nasal plus *i*. See also the analogical "nasal infix" on p. 242.
5. **CpL*z***, 1. line
6. Two sandhi variants.

With *su* prefixed, one obtains the bahuvrīhi *su-manas* ("good-hearted man/woman"). Most endings are the same, but some exhibit male/female, rather than neuter endings:

su-manas m./f.	case	sg.	dual	pl.
	nom.	*su-manās* (1)	*su-manas-âu* (2)	*su-manas-as* (2)
	voc.	*su-manas* (2)	*su-manas-âu* (2)	*su-manas-as* (2)
	acc.	*su-manas-am* (2)	*su-manas-âu* (2)	*su-manas-as* (2)
	instr.	*su-manas-ā* (2, 3)	*su-mano-bhyām* (2, 3)	*su-mano-bhis* (2, 3)

1. Nom. sg. *su-manās* is from u.at. *su-manas-s* by **CpL*s***.
2. These endings are just like in *marut*.
3. Instrumental and the other endings do not differ from the neuter endings in the *manas* paradigm.

Now, turn to *havis*.

havis n.	case	sg.	dual	pl.
	nom.	*haviṣ* (1)	*haviṣ-ī* (3)	***havīṃṣ-i*** (4)
	voc.	*havis* (1)	*haviṣ-ī* (3)	***havīṃṣ-i*** (4)
	acc.	*havis* (1)	*haviṣ-ī* (3)	***havīṃṣ-i*** (4)
	instr.	*haviṣ-ā* (2)	*havir-bhyām* (2, 5)	*havir-bhis* (2, 5)
	dat.	*haviṣ-ê* (2)	*havir-bhyām* (2, 5)	*havir-bhyas* (2, 5)
	abl.	*haviṣ-as* (2)	*havir-bhyām* (2, 5)	*havir-bhyas* (2, 5)
	gen.	*haviṣ-as* (2)	*haviṣ-ôs* (2)	*haviṣ-ām* (2)
	loc.	*haviṣ-i* (2)	*haviṣ-ôs* (2)	*haviṣ-ṣu/haviḥ-su* (2, 6)

1. The stem *havis* serves as sg. NVA.
2. Building on the stem, many forms follow the *marut* pattern (p. 230). **RUKI**.
3. Expected long *ī* in n. dual NVA. **RUKI**.
4. NVA pl. is difficult, but partly explainable by sound law ***Ns*** and by analogy with other n. pl. NVA forms like *karm-āṇ-i, gant-ṝṇ-i, tapas-vīn-i, phal-ā-ni, madh-ūn-i, manāṃs-i*, and *vid-vāṃs-i*, all of them with long vowel followed by nasal plus *i*. **RUKI** despite of intervening *ṃ*. See also the analogical "nasal infix" on p. 242.
5. **Vis** or **CpL*z*** (2. line): compare *gatis nāsti* → *gatir nāsti*
6. Two sandhi variants, the first with forward assimilation

Consider, finally, *āyus,* where most forms follow the *havis* pattern above. The numbers are also from that pattern.

āyus n.	case	sg.	dual	pl.
	nom.	*āyus* (1)	*āyuṣ-ī* (3)	***āyūṃṣ-i*** (4)
	voc.	*āyus* (1)	*āyuṣ-ī* (3)	***āyūṃṣ-i*** (4)
	acc.	*āyus* (1)	*āyuṣ-ī* (3)	***āyūṃṣ-i*** (4)
	instr.	*āyuṣ-ā* (2)	*āyur-bhyām* (2, 5)	*āyur-bhis* (2, 5)
	dat.	*āyuṣ-ê* (2)	*āyur-bhyām* (2, 5)	*āyur-bhyas* (2, 5)
	abl.	*āyuṣ-as* (2)	*āyur-bhyām* (2, 5)	*āyur-bhyas* (2, 5)
	gen.	*āyuṣ-as* (2)	*āyuṣ-ôs* (2)	*āyuṣ-ām* (2)
	loc.	*āyuṣ-i* (2)	*āyuṣ-ôs* (2)	*āyuṣ-ṣu/āyuḥ-su* (2, 6)

E.3.4. Stems in *mant, vant, ant,* and *ans*

bala-vant etc.

Stems in *mant, vant*, or *ant* are very common. Consider the paradigm for *bala-vant* m. ("he who has strength") below. The strong-weak alternation concerns the suffix. Compare

- ◇ the strong suffix *vant* with
- ◇ the weak suffix $^{*}v\underset{\circ}{n}t \rightarrow vat$.

bala-vant m.	case	sg.	dual	pl.
	nom.	***bala-vān*** (1)	***bala-vant-âu***	***bala-vant-as*** (2)
	voc.	***bala-van*** (3)	***bala-vant-âu***	***bala-vant-as***
	acc.	***bala-vant-am***	***bala-vant-âu***	*bala-vat-as*
	instr.	*bala-vat-ā*	*bala-vad-bhyām* (4)	*bala-vad-bhis* (4)
	dat.	*bala-vat-ê*	*bala-vad-bhyām* (4)	*bala-vad-bhyas* (4)
	abl.	*bala-vat-as*	*bala-vad-bhyām* (4)	*bala-vad-bhyas* (4)
	gen.	*bala-vat-as*	*bala-vat-ôs*	*bala-vat-ām*
	loc.	*bala-vat-i*	*bala-vat-ôs*	*bala-vat-su*

1. *bala-vā-n* is an instance of compensatory lengthening:

   CpL*s* OI *VCs* → OI $\bar{V} + C$

   i.e.,

   **bala-vant-s* → OI **bala-vānt* (**CpL*s***) → OI *bala-vān* (**CCl**)

2. Forms like *bala-vant-as* are regular strong forms.
3. The sg. voc. *bala-van* is the full-grade stem, simplified by **CCl**.
4. *bala-vad-bhis* exhibits backward assimilation.

The neuter forms typically show strong froms in pl. NVA:

bala-vant n.	case	sg.	dual	pl.
	nom.	*bala-vat*	*bala-vat-ī*	***bala-vant-i***
	voc.	*bala-vat*	*bala-vat-ī*	***bala-vant-i***

bala-vant n.	case	sg.	dual	pl.
	acc.	*bala-vat*	*bala-vat-ī*	***bala-vant-i***
	instr.	*bala-vat-ā*	*bala-vad-bhyām*	*bala-vad-bhis*
	dat.	*bala-vat-ê*	*bala-vad-bhyām*	*bala-vad-bhyas*
	abl.	*bala-vat-as*	*bala-vad-bhyām*	*bala-vad-bhyas*
	gen.	*bala-vat-as*	*bala-vat-ôs*	*bala-vat-ām*
	loc.	*bala-vat-i*	*bala-vat-ôs*	*bala-vat-su*

From instrumental onwards, the neuter forms equal the masculine ones. Remember also:

n. dual NVA = f. sg. nom. = *bala-vat-ī*

Past active participles (PAP) like *ga-ta-vant* and pronomial adjectives like *tā-vant* ("so much") are formed like *bala-vant*.

mahant

The adjective *mahant* ("great") also belongs to this group. Consider the paradigm for masculine:

mah-ant m.	case	sg.	dual	pl.
	nom.	***mah-ān*** (1)	***mah-ānt-âu*** (3)	***mah-ānt-as*** (3)
	voc.	***mah-an*** (2)	***mah-ānt-âu*** (3)	***mah-ānt-as*** (3)
	acc.	***mah-ānt-am*** (3)	***mah-ānt-âu*** (3)	*mah-at-as*
	instr.	*mah-at-ā*	*mah-ad-bhyām*	*mah-ad-bhis*
	dat.	*mah-at-ê*	*mah-ad-bhyām*	*mah-ad-bhyas*
	abl.	*mah-at-as*	*mah-ad-bhyām*	*mah-ad-bhyas*
	gen.	*mah-at-as*	*mah-at-ôs*	*mah-at-ām*
	loc.	*mah-at-i*	*mah-at-ôs*	*mah-at-su*

1. The nom. sg. m. *mah-ān* ← *mah-ant-s* shows compensatory lengthening (regular as in *bala-vān* by the sound law **CpL*s*** on pp. 53). **CCl**.

2. Voc. sg. m. *mah-an* is regular: stem together with **CCl**.

3. Forms like *mah-ānt-as* are irregular. It seems that *ā* in the second syllable of nom. sg. m. migrated to all strong froms (leveling) except voc. sg. m. Alternatively, the second regular long *ā* in *rāj-ān-as* may have provided a motivation.

The migration of *ā* just mentioned also holds for the neuter paradigm:

mah-ant n.	case	sg.	dual	pl.
	nom.	*mah-at*	*mah-at-ī*	***mah-ānt-i***
	voc.	*mah-at*	*mah-at-ī*	***mah-ānt-i***
	acc.	*mah-at*	*mah-at-ī*	***mah-ānt-i***
	instr.	from here onward like masculine		

Note f. sg. nom. *mahat-ī* (like n. dual NVA).

Present participles, general remarks

The strong form of any present participle (pres.P) can be found by looking at the 3. person pl. present indicative:

			pres.P, m. nom.	
class	√	3. pers. pl. pres. ind.	singular	plural
1	*bhṛ*	*bhar-ant-i*	*bhar-an*	*bhar-ant-as*
6	*tud*	*tud-ant-i*	*tud-an*	*tud-ant-as*
3	*dā*	*dad-at-i*	*dad-at* (!)	*dad-at-as*
5	*śru*	*śṛṇv-ant-i*	*śṛṇv-an*	*śṛṇv-ant-as*

Present participle like *bharant*

The weak-strong distribution is clearly seen in the masculine paradigm. All these forms build on the full grade of the verb. The strong-weak alternation concerns the suffix:

◇ The strong forms use the suffix *ant*, while

◇ the weak forms have the same suffix without the vowel, i.e., $^{*}\underset{\circ}{nt} \rightarrow at$.

bhar-ant m.	case	sg.	dual	pl.
	nom.	***bhar-an*** (1)	***bhar-ant-âu***	***bhar-ant-as*** (2)
	voc.	***bhar-an*** (3)	***bhar-ant-âu***	***bhar-ant-as***
	acc.	***bhar-ant-am***	***bhar-ant-âu***	*bhar-at-as*
	instr.	*bhar-at-ā*	*bhar-ad-bhyām* (4)	*bhar-ad-bhis* (4)

bhar-ant m.	case	sg.	dual	pl.
	dat.	*bhar-at-ê*	*bhar-ad-bhyām* (4)	*bhar-ad-bhyas* (4)
	abl.	*bhar-at-as*	*bhar-ad-bhyām* (4)	*bhar-ad-bhyas* (4)
	gen.	*bhar-at-as*	*bhar-at-ôs*	*bhar-at-ām*
	loc.	*bhar-at-i*	*bhar-at-ôs*	*bhar-at-su*

1. *bhar-a-n* goes back to *bhar-a-nt-s* in line with **CCl**. However, one might have expected compensatory lengthening due to **CpL*s*** (compare *bala-vā-n*).
2. Forms like *bhar-ant-as* are regular strong forms.
3. The sg. voc. *bhar-an* is the full-grade stem, simplified by **CCl**.
4. **BA**

Turn now to the neuter paradigm. Dual NVA are sometimes in the strong form although they should be weak according to the distribution indicated in figure E.1, p. 222:

bhar-ant n.	case	sg.	dual	pl.
	nom.	*bhar-at*	***bhar-ant-ī*** (!)	***bhar-ant-i***
	voc.	*bhar-at*	***bhar-ant-ī*** (!)	***bhar-ant-i***
	acc.	*bhar-at*	***bhar-ant-ī*** (!)	*bhar-at-as*
	instr.	from here like masculine		

Again, observe

$$\text{f. sg. nom.} \quad = \quad \text{n. dual NVA} \quad = \quad \textit{bhar-ant-}\bar{\imath}$$

Present participles with *bala-vant* formation

Two interesting pres.P show the pattern of *bala-vant* rather than that of *bhar-ant*. Firstly, the regular distribution (weak dual n.) is shown by *jagat* n. ("world") which is the present participle of the 3. class verb *gā, ji-gā-ti* ("to go"):

ja-g-ant n.	case	sg.	dual	pl.
	nom.	*ja-g-at*	*ja-g-at-ī*	***ja-g-ant-i***
	voc.	*ja-g-at*	*ja-g-at-ī*	***ja-g-ant-i***
	acc.	*ja-g-at*	*ja-g-at-ī*	***ja-g-ant-i***
	instr.	*ja-g-at-ā*	*ja-g-ad-bhyām*	*ja-g-ad-bhis*
	dat.	et cetera		

Secondly, the honorific pronoun *bhav-ant* ("your honor") which, orginally, is the pres.P of *bhū* ("to be") follows *bala-vant*:

bhav-ant m.	case	sg.	dual	pl.
	nom.	***bhav-ān***	***bhav-ant-âu***	***bhav-ant-as***
	voc.	***bhav-an***	***bhav-ant-âu***	***bhav-ant-as***
	acc.	***bhav-ant-am***	***bhav-ant-âu***	*bhav-at-as*
	instr.	*bhav-at-ā*	*bhav-ad-bhyām*	*bhav-ad-bhis*
	dat.	et cetera		

One may speculate that *bhav-ant* was misread as *bha-vant* so that the analogy with forms like *bala-vant* was tempting.

A summary of the present-participle declension may be helpful:

1. The nom. sg. m. (like *gacch-an* ← *gacch-ants*) is without compensatory lengthening (in line with **CCl** but contradicting **CpL*s***). An exception is *bhav-ān* which follows *bala-vān.*

2. The neuter forms tend to exhibit strong forms in dual NVA in the classes 1, 4, and 10, against figure E.1, p. 222. However, the regular weak dual NVA
   - ◇ is always seen in *ja-g-at-ī* from *jagat* n. ("world") and
   - ◇ is typically present in the athematic verbal classes 2, 3, 5, 7, 8, and 9
   - ◇ and sometimes occurs in pres.P of the 6. class, where one finds
     - weak *tudatī bālâu* ("the two hitting boys") beside
     - strong *tudantī bālâu.*

3. Feminine forms are derivable from neuter dual ones:

   f. sg. nom. = n. dual NVA

   as in

stem	category	nom. sg. m.	NVA dual n.	nom. sg. f.
bala-vant	*vant*-adjective	***bala-vān***	*bala-vat-ī*	*bala-vat-ī*
mah-ant	adjective	***mah-ān***	*mah-at-ī*	*mah-at-ī*
bhar-ant	pres.P	***bhar-an***	***bhar-ant-ī***	***bhar-ant-ī***
bhav-ant	pres.P	***bhav-an***	***bhav-ant-ī***	***bhav-ant-ī***
bhav-ant	honorific pronoun	***bhav-ān***	*bhav-at-ī*	*bhav-at-ī*

   The feminine declensions like *bala-vat-ī* or *bhav-at-ī* exactly follow *nad-ī* (pp. 256).

Analogical "nasal infix" in neuter plural NVA

Remember the n. pl. forms for NVA such as these

stem	category	nom. sg. m.	NVA pl. n.
bala-vant	*vant*-adjective	***bala-vān***	***bala-vant-i***
mati-mant	*mant*-adjective	***mati-mān***	***mati-mant-i***
bhar-ant	pres.P	***bhar-an***	***bhar-ant-i***

In the last column, *n* appears because of the full grade. However, to the speakers of Sanskrit this *n* seemed to signal NVA pl. n. in general. Using the analogy

bala-vat	= nom. sg. with NVA pl. n.:	*bala-vant-i*
just as		
manas	= nom. sg. with NVA pl. n.:	*manā**ṃ**s-i*

one obtains NVA pl. n. forms like

stem	nom. sg. n.	NVA pl. n.
asṛj	*asṛk* (**AFP**)	*asṛ**ñ**j-i*
āyus	*āyus*	*āyū**ṃ**ṣ-i* (**RUKI**)
havis	*havis*	*havī**ṃ**ṣ-i* (**RUKI**)

Similar to forms like *karm-āṇ-i, gant-ī́ṇ-i, tapas-vīn-i, phal-ā-ni, madh-ūn-i,* and *vid-vāṃs-i*, we witness long vowel here (see again figure E.1), except for *asṛ**ñ**j-i*. See the above patterns of *manas*, *havis*, and *āyus*.

kṣôd-īyans etc.

It may be best to cover comparative adjectives here. Consider the paradigm for *kṣôd-īyans* m. ("smaller"):

kṣôd-īyans m.	case	sg.	dual	pl.
	nom.	***kṣôd-īyān*** (1)	***kṣôd-īyāṃs-âu*** (2)	***kṣôd-īyāṃs-as*** (2)
	voc.	***kṣôd-īyan*** (2)	***kṣôd-īyāṃs-âu*** (2)	***kṣôd-īyāṃs-as*** (2)
	acc.	***kṣôd-īyāṃs-am*** (2)	***kṣôd-īyāṃs-âu*** (2)	*kṣôd-īyas-as* (3)
	instr.	*kṣôd-īyas-ā* (3)	*kṣôd-īyô-bhyām* (3, 4)	*kṣôd-īyô-bhis* (3, 4)
	dat.	*kṣôd-īyas-ê* (3)	*kṣôd-īyô-bhyām* (3, 4)	*kṣôd-īyô-bhyas* (3, 4)
	abl.	*kṣôd-īyas-as* (3)	*kṣôd-īyô-bhyām* (3, 4)	*kṣôd-īyô-bhyas* (3, 4)
	gen.	*kṣôd-īyas-as* (3)	*kṣôd-īyas-ôs* (3)	*kṣôd-īyas-ām* (3)
	loc.	*kṣôd-īyas-i* (3)	*kṣôd-īyas-ôs* (3)	*kṣôd-īyas-su* (3)

1. *kṣôd-īyān* is another example of **CpL*s* + CCl**, here from **kṣôd-īyans-s* with nom. sg. marker *s*.

2. Like in *mah-ant*, note migration of long *ā* from nom. sg. to all the other strong forms except for voc. sg. which is explained by the formula "stem + **CCl**". ***Ns***.

3. Weak forms like *kṣôd-īyas-ā* exhibit loss of vowel and expected **SY__*N***.

4. In weak forms like *kṣôd-īyô-bhis*, see expected **CpL*z*** (1. line) of *yas* before voiced consonant *bh*.

The neuter forms regularly show strong froms in pl. NVA:

kṣôd-īyans n.	case	sg.	dual	pl.
	nom.	*kṣôd-īyas*	*kṣôd-īyas-ī*	***kṣôd-īyāṃs-i***
	voc.	*kṣôd-īyas*	*kṣôd-īyas-ī*	***kṣôd-īyāṃs-i***
	acc.	*kṣôd-īyas*	*kṣôd-īyas-ī*	***kṣôd-īyāṃs-i***
	instr.	from here like masculine		

cakṛva(n)s etc.

Now turn to the difficult forms of reduplicated perfect active participle (pf.P), for example *cakṛva(n)s* ("one who did"). It is best to assume two stems, one with *n*, the other without:

ca-kṛ-va(n)s m.	case	sg.	dual	pl.
	nom.	***ca-kṛ-vān*** (1)	***ca-kṛ-vāṃs-âu*** (2)	***ca-kṛ-vāṃs-as*** (2)
	voc.	***ca-kṛ-van*** (2)	***ca-kṛ-vāṃs-âu*** (2)	***ca-kṛ-vāṃs-as*** (2)
	acc.	***ca-kṛ-vāṃs-am*** (2)	***ca-kṛ-vāṃs-âu*** (2)	*ca-kr-uṣ-as* (3)
	instr.	*ca-kr-uṣ-ā* (3)	*ca-kṛ-vad-bhyām* (4)	*ca-kṛ-vad-bhis* (4)
	dat.	*ca-kr-uṣ-ê* (3)	*ca-kṛ-vad-bhyām* (4)	*ca-kṛ-vad-bhyas* (4)
	abl.	*ca-kr-uṣ-as* (3)	*ca-kṛ-vad-bhyām* (4)	*ca-kṛ-vad-bhyas* (4)
	gen.	*ca-kr-uṣ-as* (3)	*ca-kr-uṣ-ôs* (3)	*ca-kr-uṣ-ām* (3)
	loc.	*ca-kr-uṣ-i* (3)	*ca-kr-uṣ-ôs* (3)	*ca-kṛ-vat-su* (4, 5)

1. *ca-kṛ-vān* builds on *ca-kṛ-vans-s* (with *n*) and **CpL*s* + CCl**.

2. As in *mah-ant* and *kṣôd-īyans*, observe migration of long *ā* from nom. sg. to all the other strong forms except for voc. sg. which is explained by the formula "stem *ca-kṛ-vans* + **CCl**". ***Ns***.

3. Weak forms like *ca-kr-uṣ-ā* build on *cakṛvas* (without *n*), where the loss of vowel *a* forces *v* to become vocalic (***SV***).

4. Perhaps, forms like *ca-kṛ-vad-bhis* are best explained by analogy with forms like *bala-vad-bhis* or *bhav-ad-bhis*. And similarly *ca-kṛ-vat-su*.

5. One may surmise that *ca-kṛ-vat-su* is regular from *ca-kṛ-vas-su* by the sound law **SIB** (which produces *vat-sy-a-ti* from u.at. *vas-sy-ati*). And then, the cases explained in 4 are analogous from loc. pl.? However, this explanation does not seem valid in view of *manas-su* (p. 235).

The neuter forms regularly show strong froms in pl. NVA:

ca-kṛ-va(n)s n.	case	sg.	dual	pl.
	nom.	*ca-kṛ-vat* (4)	*ca-kr-uṣ-ī* (3)	***ca-kṛ-vāṃs-i*** (2)
	voc.	*ca-kṛ-vat* (4)	*ca-kr-uṣ-ī* (3)	***ca-kṛ-vāṃs-i*** (2)
	acc.	*ca-kṛ-vat* (4)	*ca-kr-uṣ-ī* (3)	***ca-kṛ-vāṃs-i*** (2)
	instr.	from here like masculine		

where the numbers are explained above.

Often, *vidva(n)s* ("learned person") is considered reduplicated perfect active, too, although there is no reduplication. This is also true for the 3. sg. perf. *vêda* (see p. 384).

vid-va(n)s m.	case	sg.	dual	pl.
	nom.	***vid-vān*** (1)	***vid-vāṃs-âu*** (2)	***vid-vāṃs-as*** (2)
	voc.	***vid-van*** (2)	***vid-vāṃs-âu*** (2)	***vid-vāṃs-as*** (2)
	acc.	***vid-vāṃs-am*** (2)	***vid-vāṃs-âu*** (2)	*vid-uṣ-as* (3)
	instr.	*vid-uṣ-ā* (3)	*vid-vad-bhyām* (4)	*vid-vad-bhis* (4)
	dat.	*vid-uṣ-ê* (3)	*vid-vad-bhyām* (4)	*vid-vad-bhyas* (4)
	abl.	*vid-uṣ-as* (3)	*vid-vad-bhyām* (4)	*vid-vad-bhyas* (4)
	gen.	*vid-uṣ-as* (3)	*vid-uṣ-ôs* (3)	*vid-uṣ-ām* (3)
	loc.	*vid-uṣ-i* (3)	*vid-uṣ-ôs* (3)	*vid-vat-su* (4)

1. *vid-vān* ← **vid-vans-s* (with *n*) by **CpL*s*** + **CCl**.

2. As in *mah-ant*, *kṣôd-īyans*, and *ca-kṛ-va(n)s*, observe migration of long *ā* from nom. sg. to all the other strong forms except for voc. sg. which is explained by the formula "stem *vid-vans* + **CCl**". ***Ns***.

3. Weak forms like *vid-uṣ-ā* build on *vid-vas* (without *n*), where the loss of vowel *a* forces *v* to become vocalic (***SV***).

4. Similar to forms like *ca-kṛ-vad-bhis*, one might explain forms like *vid-vad-bhis* and *vid-vat-su* by analogy (see *bhar-ad-bhis* or *mah-at-su*).

The neuter forms regularly show strong froms in pl. NVA:

vid-va(n)s n.	case	sg.	dual	pl.
	nom.	*vid-vat* (4)	*vid-uṣ-ī* (3)	***vid-vāṃs-i*** (2)
	voc.	*vid-vat* (4)	*vid-uṣ-ī* (3)	***vid-vāṃs-i*** (2)
	acc.	*vid-vat* (4)	*vid-uṣ-ī* (3)	***vid-vāṃs-i*** (2)
	instr.	from here like masculine		

where the numbers are explained above.

E.3.5. *an* and *in* stems like *rāj-an* and *yôg-in*

an stems (*rāj-an, karm-an*)

The stem for "king" is *rāj-an*. The strong-weak alternation concerns the suffix *an*:

rāj-an m.	case	sg.	dual	pl.
	nom.	***rāj-ā*** (2)	***rāj-ān-âu*** (1)	***rāj-ān-as*** (1)
	voc.	***rāj-an*** (3)	***rāj-ān-âu*** (1)	***rāj-ān-as*** (1)
	acc.	***rāj-ān-am*** (1)	***rāj-ān-âu*** (1)	*rāj-ñ-as* (4)
	instr.	*rāj-ñ-ā* (4)	*rāj-a-bhyām* (5)	*rāj-a-bhis* (5)
	dat.	*rāj-ñ-ê* (4)	*rāj-a-bhyām* (5)	*rāj-a-bhyas* (5)
	abl.	*rāj-ñ-as* (4)	*rāj-a-bhyām* (5)	*rāj-a-bhyas* (5)
	gen.	*rāj-ñ-as* (4)	*rāj-ñ-ôs* (4)	*rāj-ñ-ām* (4)
	loc.	*rāj-ñ-i*/*rāj-an-i* (4, 6)	*rāj-ñ-ôs* (4)	*rāj-a-su* (5)

1. The strong forms with OI

   $$\bar{a} \quad + \quad n \quad + \quad \text{vowel ending}$$

   go back to IE

   $$o \quad + \quad n \quad + \quad \text{vowel ending}$$

   according to Brugmann's law **L*o***.

2. Nom. sg. *rāj-ā* is difficult because IE **reǵ-on-s* should result in *rāj-ān* by **CpL*s***. I summarise under the heading **CpL__*an-in-tar*** (see p. 54).

3. The strong form voc. sg. *rāj-an* regularly equals the stem.

4. The weak forms before vowel-initial ending like instr. sg. *rāj-ñ-ā* are zero-grade forms (just nasal without vowel) and with obvious forward (!) assimilation $n \to \tilde{n}$ after palatal *j*.

5. By **SY__*N*** one obtains weak forms like *rāj-a-bhis*.

6. Loc. sg. has the alternative reading *rāj-an-i*. It is not a strong form because strong forms exhibit Brugmann's law (see 1). It is taken from forms like *ātm-an-i* (see below).

The paradigm of *śv-an* ("dog") follows the one of *rāj-an* closely:

śv-an m.	case	sg.	dual	pl.
	nom.	***śv-ā*** (2)	***śv-ān-âu*** (1)	***śv-ān-as*** (1)
	voc.	***śv-an*** (3)	***śv-ān-âu*** (1)	***śv-ān-as*** (1)
	acc.	***śv-ān-am*** (1)	***śv-ān-âu*** (1)	*śu-n-as* (4)
	instr.	*śu-n-ā* (4)	*śv-a-bhyām* (5)	*śv-a-bhis* (5)
	dat.	*śu-n-ê* (4)	*śv-a-bhyām* (5)	*śv-a-bhyas* (5)
	abl.	*śu-n-as* (4)	*śv-a-bhyām* (5)	*śv-a-bhyas* (5)
	gen.	*śu-n-as* (4)	*śu-n-ôs* (4)	*śu-n-ām* (4)
	loc.	*śu-n-i* (4)	*śu-n-ôs* (4)	*śv-a-su* (5)

1. **L*o*** (see *rāj-an*)

2. Nom. sg. *śv-ā* corresponds to *rāj-ā*. See **CpL__*an-in-tar*** on p. 54.

3. The strong form voc. sg. *śv-an* regularly equals the stem.

4. The weak forms before vowel-initial ending like instr. sg. *śu-n-ā* are zero-grade forms (just nasal without vowel) and with expected vowel *u* for semivowel *v* before consonant *n* (***SV***).

5. By **SY__*N*** and **SY__Conf** one obtains weak forms like *śv-a-bhis,* but not u.at. *śu-n-bhis.*

Turn now to *yuv-an* m. ("youngster"):

yuv-an m.	case	sg.	dual	pl.
	nom.	***yuv-ā*** (2)	***yuv-ān-âu*** (1)	***yuv-ān-as*** (1)
	voc.	***yuv-an*** (3)	***yuv-ān-âu*** (1)	***yuv-ān-as*** (1)
	acc.	***yuv-ān-am*** (1)	***yuv-ān-âu*** (1)	*yū-n-as* (4)
	instr.	*yū-n-ā* (4)	*yuv-a-bhyām* (5)	*yuv-a-bhis* (5)
	dat.	*yū-n-ê* (4)	*yuv-a-bhyām* (5)	*yuv-a-bhyas* (5)
	abl.	*yū-n-as* (4)	*yuv-a-bhyām* (5)	*yuv-a-bhyas* (5)
	gen.	*yū-n-as* (4)	*yū-n-ôs* (4)	*yū-n-ām* (4)
	loc.	*yū-n-i* (4)	*yū-n-ôs* (4)	*yuv-a-su* (5)

1. **L*o*** (see *rāj-an*)
2. Nom. sg. *yuv-ā* corresponds to *rāj-ā* and *śv-ā*.
3. The strong form voc. sg. *yuv-an* regularly equals the stem.
4. The weak forms before vowel-initial ending like instr. sg. *yū-n-ā* are zero-grade forms (just nasal without vowel) and with expected long vowel for vowel plus (semi)vowel before consonant *n* (**VS** 1. line).
5. By **SY_*N*** and **SY_Conf** (see 29) one obtains weak forms like *yuv-a-bhis (*rather than u.at. *ivunbhis).*

The n. (!) noun *nām-an* ("name") can be explained similarly. Consider

nām-an n.	case	sg.	dual	pl.
	nom.	*nām-a* (1)	*nām-n-ī/nām-an-ī* (2, 4)	***nām-ān-i*** (3)
	voc.	*nām-a, nām-an* (2)	*nām-n-ī/nām-an-ī* (2, 4)	***nām-ān-i*** (3)
	acc.	*nām-a* (1)	*nām-n-ī/nām-an-ī* (2, 4)	***nām-ān-i*** (3)
	instr.	*nām-n-ā* (4)	*nām-a-bhyām* (5)	*nām-a-bhis* (5)
	dat.	*nām-n-ê* (4)	*nām-a-bhyām* (5)	*nām-a-bhyas* (5)
	abl.	*nām-n-as* (4)	*nām-a-bhyām* (5)	*nām-a-bhyas* (5)
	gen.	*nām-n-as* (4)	*nām-n-ôs* (4)	*nām-n-ām* (4)
	loc.	*nām-n-i/nām-an-i* (2, 4)	*nām-n-ôs* (4)	*nām-a-su* (5)

1. *nām-a* is regular weak stem without ending from IE $^*nom\text{-}\underset{\circ}{n}$.

2. *nām-a* is regular by the rule that NVA neuter are the same (with the exception of voc. sg. *phala* etc.), within sg., within dual, and within pl. In contrast, the voc. sg. alternative *nām-an* equals the stem *nām-an*. Similarly, loc. sg. and NVA dual also show irregular alternative forms. They are not strong forms because strong forms exhibit Brugmann's law (see 3). Instead, they have spilled over from words like *karm-an* ("action"), see below.

3. **Lo** (see *rāj-an*)

4. Before vowel endings, observe *n* as the weak suffix. The dual forms NVA are formed with the marker *ī* known from the consonantal paradigms.

5. Observe forms like *nām-a-bhis* that result from **SY__*N***.

Now turn to *an*-nouns with two consonants before the suffix, *ātm-an* m. ("soul, self") and the *karm-an* n. ("action"):

ātm-an m.	case	sg.	dual	pl.
	nom.	***ātm-ā*** (2)	***ātm-ān-âu*** (1)	***ātm-ān-as*** (1)
	voc.	***ātm-an*** (3)	***ātm-ān-âu*** (1)	***ātm-ān-as*** (1)
	acc.	***ātm-ān-am*** (1)	***ātm-ān-âu*** (1)	*ātm-an-as* (4)
	instr.	*ātm-an-ā* (4)	*ātm-a-bhyām* (5)	*ātm-a-bhis* (5)
	dat.	*ātm-an-ê* (4)	*ātm-a-bhyām* (5)	*ātm-a-bhyas* (5)
	abl.	*ātm-an-as* (4)	*ātm-a-bhyām* (5)	*ātm-a-bhyas* (5)
	gen.	*ātm-an-as* (4)	*ātm-an-ôs* (4)	*ātm-an-ām* (4)
	loc.	*ātm-an-i* (4)	*ātm-an-ôs* (4)	*ātm-a-su* (5)

1. **Lo** (see *rāj-an*)

2. Nom. sg. *ātm-ā* is difficult, as is *rāj-ā*. See **CpL__*an-in-tar*** on p. 54.

3. Again, the strong form voc. sg. *ātm-an* equals the stem.

4. One might expect instr. sg. u.at. *ātm-n-ā*. However, *m* would become syllabic and u.at. *āta-n-ā* would have been the final result. In order to prevent this outcome, the suffix *an* is used.

5. By **SY__*N*** one obtains weak forms like *ātm-a-bhis*.

karm-an n.	case	sg.	dual	pl.
	nom.	*karm-a* (1)	*karm-aṇ-ī* (4)	***karm-āṇ-i*** (3)
	voc.	*karm-a, karm-an* (2)	*karm-aṇ-ī* (4)	***karm-āṇ-i*** (3)
	acc.	*karm-a* (1)	*karm-aṇ-ī* (4)	***karm-āṇ-i*** (3)
	instr.	*karm-aṇ-ā* (4)	*karm-a-bhyām* (5)	*karm-a-bhis* (5)
	dat.	*karm-aṇ-ê* (4)	*karm-a-bhyām* (5)	*karm-a-bhyas* (5)
	abl.	*karm-aṇ-as* (4)	*karm-a-bhyām* (5)	*karm-a-bhyas* (5)
	gen.	*karm-aṇ-as* (4)	*karm-aṇ-ôs* (4)	*karm-aṇ-ām* (4)
	loc.	*karm-aṇ-i* (4)	*karm-aṇ-ôs* (4)	*karm-a-su* (5)

1. Nom. sg. *karm-a* is regular weak stem without ending due to **SY__*N*** and **SY__Conf.**
2. Again, observe alternative forms for voc. sg. The second one *karm-an* equals the stem as in the masculine paradigm.
3. **L*o*** (see *rāj-an*)
4. Before vowel endings, one would expect *n* as the weak suffix, for example instr. sg. u.at. *karm-n-ā.* However, *kara-ṇ-ā* could not have survived for long (compare *ātm-an-ā*) and would easily have been confused with *kar-aṇa-m* (pp. 105).
5. Observe forms like *karm-a-bhis* that result from **SY__*N*** and **SY__Conf.**

in stems (*yôg-in, tapas-vin*)

After one has mastered *rāj-an*, it is not too difficult to understand *yôg-in* m. ("yogi") and other *in* stems. They do not show any strong-weak alternation:

yôg-in m.	case	sg.	dual	pl.
	nom.	*yôg-ī* (2)	*yôg-in-âu* (1)	*yôg-in-as* (1)
	voc.	*yôg-in*	*yôg-in-âu* (1)	*yôg-in-as*
	acc.	*yôg-in-am*	*yôg-in-âu* (1)	*yôg-in-as* (1)
	instr.	*yôg-in-ā*	*yôg-i-bhyām* (3)	*yôg-i-bhis* (3)
	dat.	*yôg-in-ê*	*yôg-i-bhyām* (3)	*yôg-i-bhyas* (3)
	abl.	*yôg-in-as*	*yôg-i-bhyām* (3)	*yôg-i-bhyas* (3)
	gen.	*yôg-in-as*	*yôg-in-ôs*	*yôg-in-ām*
	loc.	*yôg-in-i*	*yôg-in-ôs*	*yôg-i-ṣu* (3, 4)

1. Since there is no weak-strong alternation, nom. and acc. pl. are not differentiated.

2. Similar to the nom. sg. *rāj-ā*, *yôg-ī* also exhibits compensatory lengthening for original *s* with loss of final *n*. See **CpL__*an-in-tar*** on p. 54.

3. In the weak forms before consonants (*bh* or *s*) the *n* of *rāj-an* becomes syllabic and turns into *a*. By analogy, *n* is also missing in the corresponding forms of *yôg-in*:

rāj-an	with instr. pl.:	*rāj-a-bhis*
just as		
yôg-in	with instr. pl.:	*yôg-i-bhis*

4. **RUKI**

Some *in* stems are built on neuter *as* stems (p. 106), such as *tapas* ("heat"). However, the stem is *tapas-vin*, not *tapas-in*. Indeed, *tapas-in* would lead to confusing forms:

u.at. n. nom. sg. *tapas-i* ← u.at. *tapas-in*
loc. sg. *tapas-i* ← *tap-as*

It seems that the declension of *tapas-vin* ("ascetic") is a rather late development, where analogy was probably more important than sound laws. Apart from the suffix *vin* instead of *in*, the masculine paradigm is the same as in *yôg-in* above. See the neuter *vin* paradigm for *tapas-vin*:

tapas-vin n.	case	sg.	dual	pl.
	nom.	*tapas-vi* (1)	*tapas-vin-ī* (4)	*tapas-vīn-i* (3)
	voc.	*tapas-vi/tapas-vin* (2)	*tapas-vin-ī* (4)	*tapas-vīn-i* (3)
	acc.	*tapas-vi* (1)	*tapas-vin-ī* (4)	*tapas-vīn-i* (3)
	instr.	*tapas-vin-ā* (4)	*tapas-vi-bhyām* (5)	*tapas-vi-bhis* (5)
	dat.	*tapas-vin-ê* (4)	*tapas-vi-bhyām* (5)	*tapas-vi-bhyas* (5)
	abl.	*tapas-vin-as* (4)	*tapas-vi-bhyām* (5)	*tapas-vi-bhyas* (5)
	gen.	*tapas-vin-as* (4)	*tapas-vin-ôs* (4)	*tapas-vin-ām* (4)
	loc.	*tapas-vin-i* (4)	*tapas-vin-ôs* (4)	*tapas-vi-ṣu* (6)

1. Note nom. sg. neuter *tapas-vi* versus nom. sg. masculine *tapas-vī*.

2. Again, observe alternative forms for voc. sg. The second one *tapas-vin* equals the stem.

3. *tapas-vīn-i* may be formed by analogy with forms like *karm-āṇ-i* or *phalāni*.

4. Built regularly from the stem.

5. *tapas-vi-bhis* perhaps by analogy with forms like *rāj-a-bhis* or *yôg-i-bhis*. Note that the 1. line of **CpL*z*** is not applied. It would have produced *tapô-vi-bhis* like *manô-bhis* and, indeed, throughout the paradigm (*tapô-vin-ā* etc.).

6. **RUKI**

E.3.6. Agent and kinship nouns like *nê-tar* and *pitar*

tar stems (*nê-tar*, *kar-tar*)

Now turn to hybrid nouns (p. 223), the (usually called) *ṛ* stems that I prefer to call *tar* stems. All the forms show full grade of the verbal component, like the stems *nê-tar* ("leader"), *bhar-tar* ("husband"), or *kar-tar* ("doer, maker"). The weak-strong alternation concerns the suffix. From an IE point of view, the suffix is *tor*. You kow this suffix from the Latin B *men-tor*.

◇ The strong forms exhibit this suffix *tar*. The strong forms with OI

$$\bar{a} \quad + \quad r \quad + \quad \text{vowel ending}$$

originate from IE

$$o \quad + \quad r \quad + \quad \text{vowel ending}$$

according to Brugmann's law **L*o***.

◇ In the weak forms, see *tr* before vowels or *tṛ* before consonants.

First consider the declension pattern of *nê-tar* ("leader"):

nê-tar m.	case	sg.	dual	pl.
	nom.	***nê-tā*** (2)	***nê-tār-âu*** (1)	***nê-tār-as*** (1)
	voc.	***nê-tar*** (3)	***nê-tār-âu*** (1)	***nê-tār-as*** (1)
	acc.	***nê-tār-am*** (1)	***nê-tār-âu*** (1)	*nê-tṝ-n* (6)
	instr.	*nê-tr-ā* (4)	*nê-tṛ-bhyām* (5)	*nê-tṛ-bhis* (5)
	dat.	*nê-tr-ê* (4)	*nê-tṛ-bhyām* (5)	*nê-tṛ-bhyas* (5)
	abl.	*nê-t-us* (4, 10)	*nê-tṛ-bhyām* (5)	*nê-tṛ-bhyas* (5)
	gen.	*nê-t-us* (4, 10)	*nê-tr-ôs* (4)	*nê-tṝ-ṇām* (7)
	loc.	*nê-tar-i* (9)	*nê-tr-ôs* (4)	*nê-tṛ-ṣu* (5, 8)

1. **L*o***

2. Nom. sg. *nê-tā* may be due to **CpL*s***: *tor-s* → *tōr* → *tār*. Finally, in line with **CpL__*an-in-tar***, the *r* is dropped after the long *ā* (similarly, observe *rāj-ā*, where the *n* is lost).

3. As usual, voc. sg. *nê-tar* equals the stem. Since the syllable is not open (*r* is not followed by a vowel), Brugmann's law does not apply.

4. The weak forms before vowel-initial endings build on the zero-grade suffix, for example instr. sg. *nê-tr-ā*.

5. Before a consonant-initial ending, one obtains forms like *nê-tṛ-bhis*.

6. The vocalic IE acc. pl. marker *ns* is cerebralised after *r*-sounds, but not in a word-final position (see **Cer*n***). Syllabic *r̥̄* is long by **CpL*s*** or by analogy with forms like *dêv-ān*. See pp. 221.

7. *nê-tr̥̄-ṇām* has long *r̥̄* because the vocalic IE gen. pl. marker is *Hnōm* (**Lar__*V***).

8. **RUKI**

9. The loc. *nê-tar-i* is irregular for expected weak form *nê-tr-i*. Note that *nê-tar-i* is not a strong form which would be *nê-tār-i* by **Lo*o***. Maybe, analogy is to blame, for example,

marut	with voc. sg.:	*marut-i*
just as		
nê-tar	with voc. sg.:	*nê-tar-i*

10. The ending *us* in abl. and gen. sg. *nê-t-us* seems to go back to *r̥s*, (see MI sound laws on pp. 59).

Be careful: *bhar-tar* ("husband") is best understood as agent nouns, and not as kinship nouns (see next subsection). Finally, two comments on the other two genders:

◇ Feminine agent nouns are formed with long *ī*, for example *nê-trī* ("woman leader"). They are declinated like *nad-ī* ("river"), see pp. 256.

◇ Neuter agent nouns are often used as neuter adjectives. They are treated on pp. 265.

Kinship nouns (*pitar*, *mātar*)

Kinship nouns (such as *pitar*, "father") are very similar to agent nouns:

pit-ar m.	case	sg.	dual	pl.
	nom.	***pit-ā*** (2)	***pit-ar-âu*** (1)	***pit-ar-as*** (1)
	voc.	***pit-ar*** (3)	***pit-ar-âu*** (1)	***pit-ar-as*** (1)

pit-ar m.	case	sg.	dual	pl.
	acc.	***pit-ar-am*** (1)	***pit-ar-âu*** (1)	*pit-r̥-n* (6)
	instr.	*pit-r-ā* (4)	*pit-r̥-bhyām* (5)	*pit-r̥-bhis* (5)
	dat.	*pit-r-ê* (4)	*pit-r̥-bhyām* (5)	*pit-r̥-bhyas* (5)
	abl.	*pit-us* (10)	*pit-r̥-bhyām* (5)	*pit-r̥-bhyas* (5)
	gen.	*pit-us* (10)	*pit-r-ôs* (4)	*pit-r̥̄-ṇām* (7)
	loc.	*pit-ar-i* (9)	*pit-r-ôs* (4)	*pit-r̥-s̥u* (5, 8)

1. In contrast to agent nouns, the suffix does not contain IE *o* so that Brugmann's law **L*o*** is not applied.
2. Nom. sg. *pit-ā* may be due to **CpL*s***: *er-s* → *ēr* → *ār*. Again, consult **CpL__*an-in-tar*** on p. 54.
3. As usual, voc. sg. *pit-ar* equals the stem.
4. The weak forms before vowel-initial endings build on the zero-grade suffix as in instr. sg. *pit-r-ā*.
5. Before a consonant-initial ending, one obtains forms like *pit-r̥-bhis* (pp. 20).
6. The vocalic IE acc. pl. marker *ns* is cerebralised after *r*-sounds, but not in a word-final position (see **Cer*n***). Syllabic *r̥̄* is long by **CpL*s*** or by analogy with forms like *dêv-ān*. See pp. 221.
7. *pit-r̥̄-ṇām* has long *r̥̄* because the vocalic IE gen. pl. marker is *Hnōm* (**Lar__*V***).
8. **RUKI**
9. The loc. *pit-ar-i* is irregular for expected weak form *pit-r-i*.
10. The ending *us* in abl. and gen. sg. *pit-us* seems to go back to *r̥̊s*, (see MI sound laws on pp. 59).

An example for a f. kinship term is *mātar* ("mother"):

māt-ar f.	case	sg.	dual	pl.
	nom.	***māt-ā***	***māt-ar-âu***	***māt-ar-as***
	voc.	***māt-ar***	***māt-ar-âu***	***māt-ar-as***
	acc.	***māt-ar-am***	***māt-ar-âu***	*māt-r̥̄-s* (!)

māt-ar f.	case	sg.	dual	pl.
	instr.	*māt-r-ā*	*māt-ṛ-bhyām*	*māt-ṛ-bhis*
	dat.	*māt-r-ê*	*māt-ṛ-bhyām*	*māt-ṛ-bhyas*
	abl.	*māt-us*	*māt-ṛ-bhyām*	*māt-ṛ-bhyas*
	gen.	*māt-us*	*māt-r-ôs*	*māt-ṝ-ṇām*
	loc.	*māt-ar-i*	*māt-r-ôs*	*māt-ṛ-ṣu*

On the basis of *pit-ar* ("father"), the only difference in feminine *māt-ar* ("mother") concerns the acc. pl. *māt-ṝ-s*. Compare

	vocalic *a* declension	hybrid declension
masculine	*dêv-ā-n*	*pit-ṝ-n*
feminine	*dêv-ā-s*	*māt-ṝ-s*

Finally, *svas-ar* f. ("the female own one, sister") is declined as masculine *nê-tar* with the notable exception of acc. pl. *svas-ṝ-s*. Or, inversely, *svas-ar* follows *māt-ar*, but has *ār* (not *ar*) in the strong forms acc. sg. *svas-ār-am* through voc. pl. *svas-ār-as*.

E.3.7. Stems in diphthongs

In this secion, stems in short and long diphthongs are covered. They are consonantal, but do not reflect any IE weak-strong alternation. First, short-diphthong *gô* m./f. ("cow") is dealt with. Its pattern is very difficult:

gô m./f.	case	sg.	dual	pl.
	nom.	*gâu-s* (2)	*gāv-âu* (2)	*gāv-as* (2)
	voc.	*gâu-s* (2)	*gāv-âu* (2)	*gāv-as* (2)
	acc.	*gām* (1)	*gāv-âu* (2)	*gās* (1)
	instr.	*gav-ā* (3)	*gô-bhyām* (3)	*gô-bhis* (3)
	dat.	*gav-ê* (3)	*gô-bhyām* (3)	*gô-bhyas* (3)
	abl.	*gôs* (4)	*gô-bhyām* (3)	*gô-bhyas* (3)
	gen.	*gôs* (4)	*gav-ôs* (3)	*gav-ām* (3)
	loc.	*gav-i* (3)	*gav-ôs* (3)	*gô-ṣu* (3, 5)

1. OI *gô* goes back to IE $*g^wou/*g^wov$. It is surmised that

a) acc. sg. *gām* ← IE $^*g^w ovm$ and

b) acc. pl. *gās* ← IE $^*g^w ovms$

involve compensatory lengthening after the drop of *v*.

2. These long *ā* in the accusatives spread to nom. and voc. forms in the singular and plural and, furthermore, to the dual NVA forms.

3. Sound law **DIPH** can account for *av* before vowels and *ô* before consonants.

4. Difficult

5. **RUKI**

Turn now to long-diphthong stems like *râi* m./f. ("wealth") and *glâu* m. ("moon"). Beginning with the *âu* nouns, consider

glâu m.	case	sg.	dual	pl.
	nom.	*glâu-s* (2, 3)	*glāv-âu* (1)	*glāv-as* (1)
	voc.	*glâu-s* (2, 4)	*glāv-âu* (1)	*glāv-as* (1)
	acc.	*glāv-am* (1)	*glāv-âu* (1)	*glāv-as* (1)
	instr.	*glāv-ā* (1)	*glâu-bhyām* (2)	*glâu-bhis* (2)
	dat.	*glāv-ê* (1)	*glâu-bhyām* (2)	*glâu-bhyas* (2)
	abl.	*glāv-as* (1)	*glâu-bhyām* (2)	*glâu-bhyas* (2)
	gen.	*glāv-as* (1)	*glāv-ôs* (1)	*glāv-ām* (1)
	loc.	*glāv-i* (1)	*glāv-ôs* (1)	*glâu-ṣu* (2)

1. *glāv* before vowels by **DIPH**

2. *glâu* before consonants by **DIPH**

3. Nom. sg. marker *s* is clearly observable

4. Voc. sg. irregularly differs from the stem.

The *glâu* pattern is also followed by *nâu* f. ("boat"). Turning to the *âi* stem, consider the paradigm

râi m./f.	case	sg.	dual	pl.
	nom.	*rā-s* (2, 3)	*rāy-âu* (1)	*rāy-as* (1)
	voc.	*rā-s* (2, 4)	*rāy-âu* (1)	*rāy-as* (1)
	acc.	*rāy-am* (1)	*rāy-âu* (1)	*rāy-as* (1)
	instr.	*rāy-ā* (1)	*rā-bhyām* (2)	*rā-bhis* (2)
	dat.	*rāy-ê* (1)	*rā-bhyām* (2)	*rā-bhyas* (2)
	abl.	*rāy-as* (1)	*rā-bhyām* (2)	*rā-bhyas* (2)
	gen.	*rāy-as* (1)	*rāy-ôs* (1)	*rāy-ām* (1)
	loc.	*rāy-i* (1)	*rāy-ôs* (1)	*rā-su* (2)

1. *rāy* before vowels by **DIPH**
2. By **DIPH** before consonants, one should expect u.at. *râi-bhis* rather than *rā-bhis*.
3. Nom. sg. marker *s* is clearly observable
4. Voc. sg. irregularly differs from the stem.

E.3.8. Feminine *ī* and *ū* stems

nadī and *vadhū*

There exist two feminine declensions with long *ī* and long *ū*, respectively. They strongly resemble each other. The *ī* stem is exemplified by *nadī* ("river"):

nadī f.	case	sg.	dual	pl.
	nom.	*nad-ī* (1, 2)	*nad-y-âu* (4)	*nad-y-as* (4)
	voc.	*nad-i* (3)	*nad-y-âu* (4)	*nad-y-as* (4)
	acc.	*nad-ī-m* (1)	*nad-y-âu* (4)	*nad-ī-s* (1, 6)
	instr.	*nad-y-ā* (4, 5)	*nad-ī-bhyām* (1)	*nad-ī-bhis* (1)
	dat.	*nad-y-âi* (4, 6)	*nad-ī-bhyām* (1)	*nad-ī-bhyas* (1)
	abl.	*nad-y-ās* (4, 6)	*nad-ī-bhyām* (1)	*nad-ī-bhyas* (1)
	gen.	*nad-y-ās* (4, 6)	*nad-y-ôs* (4)	*nad-ī-nām* (1)
	loc.	*nad-y-ām* (4, 6)	*nad-y-ôs* (4)	*nad-ī-ṣu* (1, 7)

The *nadī* model can be used for many f. *ī*-nouns, such as *bala-vat-ī* or *bhar-a-nt-ī*. For m. nouns, consider *sênā-nīs* m. ("army general") s.v. *nī* ("to lead"). The numbers in the *nadī* paradigm are the same as in the paradigm for *vadhū* ("bride"):

vadhū f.	case	sg.	dual	pl.
	nom.	*vadh-ū-s* (1, 2)	*vadh-v-âu* (4)	*vadh-v-as* (4)
	voc.	*vadh-u* (3)	*vadh-v-âu* (4)	*vadh-v-as* (4)
	acc.	*vadh-ū-m* (1)	*vadh-v-âu* (4)	*vadh-ū-s* (1, 6)
	instr.	*vadh-v-ā* (4, 5)	*vadh-ū-bhyām* (1)	*vadh-ū-bhis* (1)
	dat.	*vadh-v-âi* (4, 6)	*vadh-ū-bhyām* (1)	*vadh-ū-bhyas* (1)
	abl.	*vadh-v-ās* (4, 6)	*vadh-ū-bhyām* (1)	*vadh-ū-bhyas* (1)
	gen.	*vadh-v-ās* (4, 6)	*vadh-v-ôs* (4)	*vadh-ū-nām* (1, 6)
	loc.	*vadh-v-ām* (4, 6)	*vadh-v-ôs* (4)	*vadh-ū-ṣu* (1, 7)

The *vadhū* pattern is much less prominent and comprises the feminine nouns

◇ *cam-ū* ("army")

◇ *svaśr-ū* ("mother in law")

◇ *juh-ū* ("ladle"), see *hu* ("to sacrifice")

The two paradigms (*nad-ī* and *vadhū*) are quite parallel:

1. Before consonant-initial endings, the long vowel is present.
2. In contrast to the nom. sg. *nad-ī*, observe the usual nom. sg. marker *s* in *vadhūs*. (Irregularly, marker *s* shows in nom. sg. *lakṣmīs*.)
3. The voc. sg. *nad-i* and *vadh-u*, respectively, are formed from the stem but with the short vowel.
4. Before vowel-initial endings, ***SV*** leads to forms like *nad-y-ā* or *vadh-v-ā*.
5. Instr. sg. ending *ā* as usual for m. and f. consonantal declensions.
6. These two paradigms consistently use vocalic feminine endings in line with this table:

	singular			plural	
	dative	abl./gen.	locative	acc.	gen.
voc. f. nouns	*âi*	*ās*	*ām*	$\bar{V}s$	$\bar{V}nām \leftarrow {}^{*}VHnōm$

7. **RUKI**

dhī and *bhū*

Apart from *nadī* and *vadhū*, there exist monosyllabic stems in long *ī* and long *ū*, respectively. They look peculiar at first sight. Consider *dhī* ("intellect"):

dhī f.	case	sg.	dual	pl.
	nom.	*dh-ī-s* (1, 2)	*dh-iy-âu* (4)	*dh-iy-as* (4)
	voc.	*dh-ī-s* (3)	*dh-iy-âu* (4)	*dh-iy-as* (4)
	acc.	*dh-iy-am* (4)	*dh-iy-âu* (4)	*dh-iy-as* (4, 5)
	instr.	*dh-iy-ā* (4)	*dh-ī-bhyām* (1)	*dh-ī-bhis* (1, 7)
	dat.	*dh-iy-ê/dh-iy-âi* (4, 5)	*dh-ī-bhyām* (1)	*dh-ī-bhyas* (1)
	abl.	*dh-iy-as/dh-iy-ās* (4, 5)	*dh-ī-bhyām* (1)	*dh-ī-bhyas* (1)
	gen.	*dh-iy-as/dh-iy-ās* (4, 5)	*dh-iy-ôs* (4)	*dh-iy-ām/dh-ī-nām* (1, 4, 5)
	loc.	*dh-iy-i/dh-iy-ām* (4, 5)	*dh-iy-ôs* (4)	*dh-ī-ṣu* (1, 6)

The numbers are explained below the *bhū* paradigm. The same pattern is followed by the feminine nouns

◇ *bh-ī* ("fear")

◇ *śr-ī* ("wealth")

◇ *hr-ī* ("shame")

In a parallel fashion (replace *ī/i/y* by *ū/u/v*), observe *bhū* ("earth"):

bhū f.	case	sg.	dual	pl.
	nom.	*bh-ū-s* (1, 2)	*bh-uv-âu* (4)	*bh-uv-as* (4)
	voc.	*bh-ū-s* (3)	*bh-uv-âu* (4)	*bh-uv-as* (4)
	acc.	*bh-uv-am* (4)	*bh-uv-âu* (4)	*bh-uv-as* (4, 5)
	instr.	*bh-uv-ā* (4)	*bh-ū-bhyām* (1)	*bh-ū-bhis* (1, 7)
	dat.	*bh-uv-ê/bh-uv-âi* (4, 5)	*bh-ū-bhyām* (1)	*bh-ū-bhyas* (1)
	abl.	*bh-uv-as/bh-uv-ās* (4, 5)	*bh-ū-bhyām* (1)	*bh-ū-bhyas* (1)
	gen.	*bh-uv-as/bh-uv-ās* (4, 5)	*bh-uv-ôs* (4)	*bh-uv-ām/bh-ū-nām* (1, 4, 5)
	loc.	*bh-uv-i/bh-uv-ām* (4, 5)	*bh-uv-ôs* (4)	*bh-ū-ṣu* (1, 6)

The pattern of *bhū* ("earth") is also adhered to by *bhrū* ("brow"). The two paradigms (*dhī* and *bhū*) are strictly parallel:

1. Before consonant-initial endings, the long vowel is present.
2. Nom. sg. with the usual marker *s*.
3. The voc. sg. is not formed from the stem but equals the nom. sg.
4. Before vowel-initial endings, ***V+SV*** (pp. 23) leads to forms like *dh-iy-ā* or *bh-uv-ā*. Observe the variants in both the *dhī* and the *bhū* pardigms.
5. Consider this table for feminine endings of both consonantal and vocalic nouns:

	singular			plural	
	dative	abl./gen.	locative	acc.	gen.
cons. nouns	*ê*	*as*	*i*	*as*	*ām*
voc. nouns	*âi*	*ās*	*ām*	*Vs*	*Vnām* ← * *VHnōm* (**Lar_ *V***)

   Both *dhī* and *bhū* show the vocalic (*nadī*) endings except for acc. pl., where the consonantal ending prevails.
6. **RUKI**
7. *dh-ī-bhis* and *bh-ū-bhis* are peculiar in not reflecting **DA**. Perhaps, Grassmann's law was not operative any more when these forms were built. Levelling might also have come into play.

strī and *punar-bhū*

Another f. noun is *str-ī* ("woman") that exhibits forms similar to those of *dh-ī* and *nadī*:

str-ī f.	case	sg.	dual	pl.
	nom.	*str-ī*	*str-iy-âu*	*str-iy-as*
	voc.	*str-i*	*str-iy-âu*	*str-iy-as*
	acc.	*str-iy-am/str-ī-m* (!)	*str-iy-âu*	*str-iy-as/str-ī-s* (!)
	instr.	*str-iy-ā*	*str-ī-bhyām*	*str-ī-bhis*
	dat.	*str-iy-âi*	*str-ī-bhyām*	*str-ī-bhyas*
	abl.	*str-iy-ās*	*str-ī-bhyām*	*str-ī-bhyas*
	gen.	*str-iy-ās*	*str-iy-ôs*	*str-ī-nām*
	loc.	*str-iy-ām*	*str-iy-ôs*	*str-ī-ṣu*

After taking ***V+SV*** into account, the only difference to the *nadī* paradigm concerns the accusatives. The first one is consonantal, the second one is vocalic.

Finally, turn to *punar-bh-ū* f. ("remarried widow"), which belongs to *bhū* ("to be"). This noun does not apply ***V+SV*** by replacing *ū* by *uv* before vowel endings. Instead, one observes forms like instr. sg. *punar-bh-v-ā*, very much like *vadh-v-ā*. The only differences in comparison with *vadh-ū* are seen in the acc. sg. and pl., where the consonantal forms are *punar-bh-v-a-m* and *punar-bh-v-as*, similar to the first alternatives in the *str-ī* paradigm.

Related masculine compounds

There exist two compounds related with *dhī* ("intellect") and *bhū* ("earth"). Both are masculine:

- ◇ *su-dhī* ("intelligent") and
- ◇ *prati-bhū* ("guarantor")

Being masculine, they employ the first alternative in the *dhī* and *bhū* paradigm, respectively:

su-dhī m.	case	sg.	dual	pl.
	nom.	*su-dh-ī-s*	*su-dh-iy-âu*	*su-dh-iy-as*
	voc.	*su-dh-ī-s*	*su-dh-iy-âu*	*su-dh-iy-as*
	acc.	*su-dh-iy-am*	*su-dh-iy-âu*	*su-dh-iy-as*
	instr.	*su-dh-iy-ā*	*su-dh-ī-bhyām*	*su-dh-ī-bhis*
	dat.	*su-dh-iy-ê*	*su-dh-ī-bhyām*	*su-dh-ī-bhyas*
	abl.	*su-dh-iy-as*	*su-dh-ī-bhyām*	*su-dh-ī-bhyas*
	gen.	*su-dh-iy-as*	*su-dh-iy-ôs*	*su-dh-iy-ām*
	loc.	*su-dh-iy-i*	*su-dh-iy-ôs*	*su-dh-ī-ṣu*

and

prati-bhū m.	case	sg.	dual	pl.
	nom.	*prati-bh-ū-s*	*prati-bh-uv-âu*	*prati-bh-uv-as*
	voc.	*prati-bh-ū-s*	*prati-bh-uv-âu*	*prati-bh-uv-as*
	acc.	*prati-bh-uv-am*	*prati-bh-uv-âu*	*prati-bh-uv-as*
	instr.	*prati-bh-uv-ā*	*prati-bh-ū-bhyām*	*prati-bh-ū-bhis*
	dat.	*prati-bh-uv-ê*	*prati-bh-ū-bhyām*	*prati-bh-ū-bhyas*

prati-bhū m.	case	sg.	dual	pl.
	abl.	*prati-bh-uv-as*	*prati-bh-ū-bhyām*	*prati-bh-ū-bhyas*
	gen.	*prati-bh-uv-as*	*prati-bh-uv-ôs*	*prati-bh-uv-ām*
	loc.	*prati-bh-uv-i*	*prati-bh-uv-ôs*	*prati-bh-ū-ṣu*

E.3.9. *i* and *u* stems

i stems (*mun-i*, *mat-i*)

Consider *i* stems, for example

◇ m. *muni*

◇ f. *mati*

◇ n. *vāri*

and *u* stems, for example

◇ m. *guru*

◇ f. *dhênu*

◇ n. *madhu*

While the *i* and *u* stems are parallel, they show some unusual features not encountered before. Turning to the *i* stems first, compare

mun-i m.	case	sg.	dual	pl.
	nom.	*mun-i-s* (1)	*mun-ī* (5)	*mun-ay-as* (2, 3)
	voc.	*mun-ê* (2)	*mun-ī* (5)	*mun-ay-as* (2, 3)
	acc.	*mun-i-m* (1)	*mun-ī* (5)	*mun-ī-n* (7)
	instr.	*mun-i-n-ā* (3, 6)	*mun-i-bhyām* (3)	*mun-i-bhis* (3)
	dat.	*mun-ay-ê* (2, 3)	*mun-i-bhyām* (3)	*mun-i-bhyas* (3)
	abl.	*mun-ê-s* (2)	*mun-i-bhyām* (3)	*mun-i-bhyas* (3)
	gen.	*mun-ê-s* (2)	*mun-y-ôs* (1)	*mun-ī-nām* (8)
	loc.	*mun-âu* (4)	*mun-y-ôs* (1)	*mun-i-ṣu* (3, 9)

with

mat-i f.	case	sg.	dual	pl.
	nom.	*mat-i-s* (1)	*mat-ī* (5)	*mat-ay-as* (2, 3)
	voc.	*mat-ê* (2)	*mat-ī* (5)	*mat-ay-as* (2, 3)
	acc.	*mat-i-m* (1)	*mat-ī* (5)	*mat-ī-s* (7)
	instr.	*mat-y-ā* (3)	*mat-i-bhyām* (3)	*mat-i-bhis* (3)
	dat.	*mat-ay-ê* (2, 3)/*mat-y-âi* (10)	*mat-i-bhyām* (3)	*mat-i-bhyas* (3)
	abl.	*mat-ê-s* (2)/*mat-y-ās* (10)	*mat-i-bhyām* (3)	*mat-i-bhyas* (3)
	gen.	*mat-ê-s* (2)/*mat-y-ās* (10)	*mat-y-ôs* (1)	*mat-ī-nām* (8)
	loc.	*mat-âu* (4)/*mat-y-ām* (10)	*mat-y-ôs* (1)	*mat-i-ṣu* (3, 9)

1. From the sound law ***SV***, *i* before consonant versus *y* before vowel is expected.

2. Some forms are "strong" in the sense of having the strong declension signs in line with **DIPH**:

   a) *ê* before consonants or in word-final position (voc. sg.) and

   b) *ay* before vowels.

   The distribution of these "strong" forms has nothing to do with the strong forms in the sense of figure E.1, p. 222.

3. Some endings are very familiar (for example from *marut*): instr. sg. *ā*, dat. sg. *ê*, or instr. pl. *bhis*.

4. Loc. sg. *mat-âu* is strange in doing away with the stem-final *i*. Loc. sg. ending *âu* differs from the usual ending *i* encountered in *marut-i* or *dêv-ê* ← **dêv-a-i*. *âu* may have travelled from the *u* stems like *guru* below.

5. The ending *âu* occurs as the or as a loc. sg. It is not used in the dual forms NVA. There, observe the long thematic vowel instead, as in *mun-ī* or *mat-ī*. Compare dual NVA *jagatī* and *vanê* ← *vana-ī* (**VS**, 2. line).

6. Instr. sg. m. *mun-i-n-ā* exhibits additional *n*, presumably modelled on *in* stems, for example *yôg-in-ā*.

7. Compare acc. pl.

   ◇ *mun-ī-n* m. versus *mat-ī-s* f. with

   ◇ *dêv-ā-n* m. versus *sên-ā-s* f.

   Revisit subsection E.1.2, p. 221.

8. Gen. pl. are vocalic as might be expected. The long vowels are explained by the laryngeal in the IE ending *Hnōm.*

9. **RUKI**

10. The f. paradigm alternatively allows the vocalic *nadī* endings in dative through locative singular.

Special case: *pati*

In compounds like

◇ *nara-pati* m. (“lord of the people, king”)

◇ *vanas-pati* m. (“lord of the forest, tree”)

the paradigm of *pati* (“husband”) follows *muni* above. In isolation, *pati* shows some peculiarities, but is “more regular” than *muni* or *pi-tar*:

pat-i m.	case	sg.	dual	pl.
	nom.	*pat-i-s*	*pat-ī*	*pat-ay-as*
	voc.	*pat-ê*	*pat-ī*	*pat-ay-as*
	acc.	*pat-i-m*	*pat-ī*	*pat-ī-n*
	instr.	*pat-y-ā* (1)	*pat-i-bhyām*	*pat-i-bhis*
	dat.	*pat-y-ê* (2)	*pat-i-bhyām*	*pat-i-bhyas*
	abl.	*pat-y-us* (3)	*pat-i-bhyām*	*pat-i-bhyas*
	gen.	*pat-y-us* (3)	*pat-y-ôs*	*pat-ī-nām*
	loc.	*pat-y-âu* (4)	*pat-y-ôs*	*pat-i-ṣu*

1. Instr. sg. *pat-y-ā* does not show unexpected *n* like *mun-i-n-ā.*

2. Dat. sg. *pat-y-ê* does not exhibit the unusual “strong” declension sign as does *mun-ay-ê.*

3. *pat-y-us* exhibits the *us*-ending otherwise known from
   ◇ kinship terms like *pit-us* (pp. 253)
   ◇ *tar* nouns like *nê-t-us* (pp. 251)
   where (as a MI development) the *ṛ* is replaced by *u* after labials (pp. 59).

4. Loc. sg.
   ◇ *pat-y-âu* still exhibits the semivowel *y*, while
   ◇ *mun-âu* can strangely do without.

u stems (*gur-u, dhên-u*)

The *u* stems, m. and f., are just as the *i* stems. One only needs to replace

◇ *i* by *u* and *y* by *v*

◇ *ê* by *ô* and *ay* by *av*

◇ *ī* by *ū*

Compare, again, a masculine paradigm

gur-u m.	case	sg.	dual	pl.
	nom.	*gur-u-s* (1)	*gur-ū* (5)	*gur-av-as* (2, 3)
	voc.	*gur-ô* (2)	*gur-ū* (5)	*gur-av-as* (2, 3)
	acc.	*gur-u-m* (1)	*gur-ū* (5)	*gur-ū-n* (7)
	instr.	*gur-u-ṇ-ā* (3, 6, 11)	*gur-u-bhyām* (3)	*gur-u-bhis* (3)
	dat.	*gur-av-ê* (2, 3)	*gur-u-bhyām* (3)	*gur-u-bhyas* (3)
	abl.	*gur-ô-s* (2)	*gur-u-bhyām* (3)	*gur-u-bhyas* (3)
	gen.	*gur-ô-s* (2)	*gur-v-ôs* (1)	*gur-ū-ṇām* (8, 11)
	loc.	*gur-âu* (4)	*gur-v-ôs* (1)	*gur-u-ṣu* (3, 9)

with a feminine one:

dhên-u f.	case	sg.	dual	pl.
	nom.	*dhên-u-s* (1)	*dhên-ū* (5)	*dhên-av-as* (2, 3)
	voc.	*dhên-ô* (2)	*dhên-ū* (5)	*dhên-av-as* (2, 3)
	acc.	*dhên-u-m* (1)	*dhên-ū* (5)	*dhên-ū-s* (7)
	instr.	*dhên-v-ā* (3)	*dhên-u-bhyām* (3)	*dhên-u-bhis* (3)
	dat.	*dhên-av-ê* (2, 3)/*dhên-v-âi* (10)	*dhên-u-bhyām* (3)	*dhên-u-bhyas* (3)
	abl.	*dhên-ô-s* (2)/*dhên-v-ās* (10)	*dhên-u-bhyām* (3)	*dhên-u-bhyas* (3)
	gen.	*dhên-ô-s* (2)/*dhên-v-ās* (10)	*dhên-v-ôs* (1)	*dhên-ū-nām* (8)
	loc.	*dhên-âu* (4)/*dhên-v-ām* (10)	*dhên-v-ôs* (1)	*dhên-u-ṣu* (3, 9)

1. ***SV***

2. **DIPH**, but strong declension signs unrelated to figure E.1, p. 222.
3. Familiar endings: instr. sg. *ā*, dat. sg. *ê* and instr. pl. *bhis*.
4. Loc. sg. ending *âu* differs from the usual ending *i* encountered in *marut-i* or *dêv-ê* ← **dêv-a-i*.
5. The ending *âu* occurs as the or as a loc. sg. It is not used in the dual forms NVA. There, observe the long thematic vowel instead: *gur-ū* or *dhên-ū*.
6. Instr. sg. m. *gur-u-ṇ-ā* exhibits additional *n*, presumably modelled on *in* stems, for example *yôg-in-ā*. It is parallel to *mun-i-n-ā*.
7. Compare acc. pl.
   - ◇ *gur-ū-n* m. versus *dhên-ū-s* f. with
   - ◇ *mun-ī-n* m. versus *mat-ī-s* f. and with
   - ◇ *dêv-ā-n* m. versus *sên-ā-s* f.
8. Gen. pl. are vocalic as might be expected. The long vowels are explained by the laryngeal in the IE ending *Hnōm*.
9. **RUKI**
10. Vocalic *nadī* and *vadhū* endings in dative through locative singular as alternatives
11. **Cer*n***

Neuter *i(n)*, *u(n)*, or *ṛ(ṇ)* stems

The neuter *u* stems like *madh-u* ("honey") have been strongly influenced by neuter *(v)in* stems like *tapas-vin* (p. 250). Indeed, the speakers may have assumed a stem **madh-un*, rather than *madh-u*: It is instructive to compare the *madh-u*/*madh-un* paradigm with the *karm-an* paradigm (pp. 249).

madh-u/*madh-un* n.	case	sg.	dual	pl.
	nom.	*madh-u* (1)	*madh-un-ī* (2, 4)	*madh-ūn-i* (4)
	voc.	*madh-u/ô* (1, 3)	*madh-un-ī* (2, 4)	*madh-ūn-i* (4)
	acc.	*madh-u* (1)	*madh-un-ī* (2, 4)	*madh-ūn-i* (4)
	instr.	*madh-un-ā* (2)	*madh-u-bhyām* (5)	*madh-u-bhis* (5)
	dat.	*madh-un-ê* (2)	*madh-u-bhyām* (5)	*madh-u-bhyas* (5)
	abl.	*madh-un-as* (2)	*madh-u-bhyām* (5)	*madh-u-bhyas* (5)
	gen.	*madh-un-as* (2)	*madh-un-ôs* (2)	*madh-ū-nām* (6)
	loc.	*madh-un-i* (2)	*madh-un-ôs* (2)	*madh-u-ṣu* (7)

1. The stem *madh-u* is clearly present in sg. NVA.
2. The stem *madh-un* prevails in many other forms.
3. Besides *madh-u*, the second voc. sg. *madh-ô* also exists, similar to m. voc. sg. *gur-ô*.
4. Compare
   - ◇ nom. dual *tapas-vin-ī* with *madh-un-ī* and
   - ◇ nom. pl. *tapas-vīn-i* with *madh-ūn-i*.

   where pl. NVA *madh-ūn-i* are probably due to analogy with forms like *phal-ā-ni* or *karm-ā-ṇi*.
5. *madh-u-bhis* and similar forms are explainable by the stem *madh-u* but also by the stem *madh-un* together with analogy with forms like *rāj-a-bhis* or *yôg-i-bhis* (p. 250).
6. The long vowel *ū* is easily explained by the laryngeal in the IE ending *Hnōm*.
7. **RUKI**

Neuter *i* stems like *vār-i* (“water”) or the adjective *śuc-i* are formed in the same manner. Similarly, one may introduce neuter agent nouns at this junction because their declension resembles neuter *madh-u* or *vār-i* very closely. Apply the copy-paste operations

- ◇ *u* by *i* (for *vār-i*) or by *ṛ* (for *gant-ṛ*),
- ◇ *un* by *in* or by *ṛṇ* and,
- ◇ *ūn* by *īn* or by *ṝṇ*

and refer to the numbers above. Observing **Cer*n*** after *r* yields

vār-i/*vār-in* n.	case	sg.	dual	pl.
	nom.	*vār-i* (1)	*vār-iṇ-ī* (2, 4)	*vār-īṇ-i* (4)
	voc.	*vār-i*/*ê* (1, 3)	*vār-iṇ-ī* (2, 4)	*vār-īṇ-i* (4)
	acc.	*vār-i* (1)	*vār-iṇ-ī* (2, 4)	*vār-īṇ-i* (4)
	instr.	*vār-iṇ-ā* (2)	*vār-i-bhyām* (5)	*vār-i-bhis* (5)
	dat.	*vār-iṇ-ê* (2)	*vār-i-bhyām* (5)	*vār-i-bhyas* (5)
	abl.	*vār-iṇ-as* (2)	*vār-i-bhyām* (5)	*vār-i-bhyas* (5)
	gen.	*vār-iṇ-as* (2)	*vār-iṇ-ôs* (2)	*vār-ī-ṇām* (6)
	loc.	*vār-iṇ-i* (2)	*vār-iṇ-ôs* (2)	*vār-i-ṣu* (7)

on the one hand and

gant-ṛ/gant-ṛṇ n.	case	sg.	dual	pl.
	nom.	*gant-ṛ* (1)	*gant-ṛṇ-ī* (2, 4)	*gant-r̄ṇ-i* (4)
	voc.	*gant-ṛ/ar* (1, 3)	*gant-ṛṇ-ī* (2, 4)	*gant-r̄ṇ-i* (4)
	acc.	*gant-ṛ* (1)	*gant-ṛṇ-ī* (2, 4)	*gant-r̄ṇ-i* (4)
	instr.	*gant-ṛṇ-ā* (2)	*gant-ṛ-bhyām* (5)	*gant-ṛ-bhis* (5)
	dat.	*gant-ṛṇ-ê* (2)	*gant-ṛ-bhyām* (5)	*gant-ṛ-bhyas* (5)
	abl.	*gant-ṛṇ-as* (2)	*gant-ṛ-bhyām* (5)	*gant-ṛ-bhyas* (5)
	gen.	*gant-ṛṇ-as* (2)	*gant-ṛṇ-ôs* (2)	*gant-r̄-ṇām* (6)
	loc.	*gant-ṛṇ-i* (2)	*gant-ṛṇ-ôs* (2)	*gant-ṛ-ṣu* (7)

on the other hand. In particular, the voc. singulars also fit. Taking the declension signs without the nasal, compare

	z.g. of declension sign	f.g. of declension sign
madh-u	*madh-u*	*madh-ô*
gant-ṛ	*gant-ṛ*	*gant-ar*
vār-i	*vār-i*	*vār-ê*

E.3.10. *a* and *ā* stems

Finally, turn to the most common paradigms. For the *a* stems, compare

dêva m.	case	sg.	dual	pl.
	nom.	*dêv-a-s* (1)	*dêv-âu* (6a)	*dêv-ā-s* (9a)
	voc.	*dêv-a* (2)	*dêv-âu* (6a)	*dêv-ā-s* (9a)
	acc.	*dêv-a-m* (3)	*dêv-âu* (6a)	*dêv-ā-n* (9a)
	instr.	*dêv-êna* (4)	*dêv-ā-bhyām* (7)	*dêv-âis* (10)
	dat.	*dêv-āya*	*dêv-ā-bhyām* (7)	*dêv-ê-bhyas* (11)
	abl.	*dêv-āt* (4)	*dêv-ā-bhyām* (7)	*dêv-ê-bhyas* (11)
	gen.	*dêv-a-sya* (4)	*dêv-ay-ôs* (8)	*dêv-ā-nām* (12)
	loc.	*dêv-ê* (5)	*dêv-ay-ôs* (8)	*dêv-ê-ṣu* (13)

with

phalam n.	case	sg.	dual	pl.
	nom.	*phal-a-m* (1)	*phal-ê* (6b)	*phal-ā-ni* (9b)
	voc.	*phala* (2)	*phal-ê* (6b)	*phal-ā-ni* (9b)
	acc.	*phal-a-m* (3)	*phal-ê* (6b)	*phal-ā-ni* (9b)
	instr.	*phala-êna* (4)	*phal-ā-bhyām* (7)	*phal-âis* (10)
	dat.	*phal-āya*	*phal-ā-bhyām* (7)	*phal-ê-bhyas* (11)
	abl.	*phal-āt* (4)	*phal-ā-bhyām* (7)	*phal-ê-bhyas* (11)
	gen.	*phal-a-sya* (4)	*phal-ay-ôs* (8)	*phal-ā-nām* (12)
	loc.	*phal-ê* (5)	*phal-ay-ôs* (8)	*phal-ê-ṣu* (13)

1. The nom. sg. marker is *s* for masculine forms and, singularly, *m* for neuter forms. The *s* is quite common for masculine **and** feminine, as in m. u.at. *su-manas-s* → *su-manās* and u.at. *marut-s* → *marut*, in f. *vadh-ū-s* and in the m. and f. nouns mentioned on pp. 261. *m* as a marker for nom. sg. neuter nouns can be explained by pointing to the acc. sg. which has to be identical. See 3.

2. The vocative is just the stem. Thus, neuter nom. sg. differs from voc. sg. Compare *gur-ô* and *mat-ê,* where the stem shows the strong declension sign.

3. Acc. sg. regularly shows *m* in most declensions (see *marut-am, bala-vant-am*).

4. From *tad*, compare *t-êna*, *tasm-āt*, and *t-a-sya*.

5. Locative sg. with marker *i* (here *ê* ← *a-i*) is quite common, see pp. 225.

6. Dual NVA differ between m. and n.:

   a) In masculine *a* stems, observe *âu* as, for example, in m. *nê-tār-âu, pit-ar-âu, bhar-ant-âu*, *yôg-in-âu,* and *rāj-ān-ân-âu* and in f. *nad-y-âu*. From *tad*, see also m. *t-âu.*

   b) In neuter *a* stems, note *ê* from thematic vowel *a* together with IE dual ending *ī*. The latter is quite common for dual NVA. See m. *pat-ī* and *mun-ī*, f. *mat-ī* and n. *karm-aṇ-ī, gant-ṛṇ-ī*, *jagat-ī*, *tapas-vin-ī,* and *madh-un-ī*. From *tad*, see also *t-ê* ← *t-aī*.

7. *bhyām* as in all declensions, but here with unexpected long *ā* before that marker

8. *ôs* as in all declensions, but here with *ay* before that marker, perhaps in order to prevent *a-ôs*

9. Turning to the plural forms,
   a) consult pp. 228 for masculine NVA,
   b) remember that neuter NVA are identical. *phal-ā-ni* with long vowel followed by nasal plus *i* is similar to forms like *karm-āṇ-i, gant-ṝṇ-i, tapas-vīn-i, madh-ūn-i, manāṃs-i*, and *vid-vāṃs-i*.
10. From *tad*, compare *t-âis.*
11. *bhyas* as in all declensions, but here with curious *ê* before that marker
12. *ām* as in all declensions, but here the vocalic variant *V̄n-ām*
13. *su* as in all declensions, but here with curious *ê* (perhaps from the here-and-now particle *i* joined to thematic *a*?) before that marker. **RUKI**

For the feminine *sênā*, consider the paradigm

sênā f.	case	sg.	dual	pl.
	nom.	*sên-ā* (1)	*sên-ê* (6)	*sên-ā-s* (9)
	voc.	*sên-ê* (2)	*sên-ê* (6)	*sên-ā-s* (9)
	acc.	*sên-ā-m* (3)	*sên-ê* (6)	*sên-ā-s* (9)
	instr.	*sên-ayā* (4)	*sên-ā-bhyām* (7)	*sên-ā-bhis* (10)
	dat.	*sên-ā-yâi* (5)	*sên-ā-bhyām* (7)	*sên-ā-bhyas* (11)
	abl.	*sên-ā-yās* (5)	*sên-ā-bhyām* (7)	*sên-ā-bhyas* (11)
	gen.	*sên-ā-yās* (5)	*sên-ay-ôs* (8)	*sên-ā-nām* (12)
	loc.	*sên-ā-yām* (5)	*sên-ay-ôs* (8)	*sên-ā-su* (13)

1. The nom. sg. marker is *s* for masculine and feminine nouns, but observe the exception of long *ā*.
2. Difficult vocative form, perhaps modelled on forms like *mat-ê*.
3. *m* is the acc. sg. marker not just for masculine, but also for feminine nouns.
4. From *tad*, compare *t-ayā.* Note unexpected short *a* before *y.*
5. Compare the corresponding forms of f. *nadī*: *nad-y-âi*, *nad-y-âs*, and *nad-y-ām*, respectively.
6. As in neuter *a* stems, note *ê* from thematic vowel *a* together with IE dual ending *ī.* Compare f. *mat-ī.*

7. *bhyām* as in all declensions, here with expected long *ā* before that marker
8. *ôs* as in all declensions, but here with unexpected *ay* before that marker, perhaps in order to prevent *a-ôs*
9. Turning to the plural forms, observe the NVA endings *ā-s.*
10. From *tad*, compare *t-ā-bhis.* The ending *bhis* is very common for instr. pl. across all other declensions, except for short *a* declensions masculine and neuter such as the *dêva, phalam*, or *tad* pradigms above.
11. *bhyas* as in all declensions, but here with expected long *ā* before that marker
12. *ām* as in all declensions, but here the vocalic variant *V̄n-ām* (but the long *ā* is already present in the stem)
13. *su* as in all declensions, but here with expected long *ā* before that marker

E.4. Adverbs from fossilised case endings

E.4.1. Accusative

Many adverbs stem from fossilised case endings. Consider, first, adverbs based on the accusative.

- ◇ *a-vaśya-m* (“not to be wished, not to be controllable → necessarily, indeed”) ← *a* + *ya*-gerundive of *vaś* (“to wish”)
- ◇ *ī-ṣ-at* (“being in that manner → a bit, somewhat”) ← *ī* + n. pres.P of *as* (“to be”)
- ◇ *cira-m* (“for a long time, long ago”) from *cira* (“long”)
- ◇ *taras* (“fast”) from *taras* n. (“ferry, advancement, energy”)
- ◇ *nāma* (“by name”), see the declension on p. 247
- ◇ *nir-bhara-m* (“completely”) ← *nis* + *bhara*
- ◇ *prati-dina-m* (“every day”) ← *prati* + *dinam*
- ◇ *praty-aha-m* (“every day”) ← *prati* + *ahar* (but here as if acc. from some n. *aham*, which does not exist)
- ◇ *yathākāma-m* (“according to desire, at will”) ← *yathā* + *kāma* (“desire”)
- ◇ *sādhu* (“well”), see s.v. *sidh* (“to have success, to be valid”)
- ◇ *sukha-m* (“happily”)

E.4.2. Instrumental

◇ *a-khil-êna* (“in its entirety, all in all”) ← *a* + *khila* (“wasteland, rest”)

◇ *a-cir-êṇa* (“for a short time”) ← *a* + *cira* (“long”)

◇ *ucc-ais* (“loud”) ← *ucca* (“high”)

◇ *tar-êṇa* (“fast, by force”) ← *tara* m. (“the crossing”)

◇ *cir-êṇa* (“after a long time”) from *cira* (“long”)

◇ *prāy-êṇa* (“usually, probably”) ← *pra-aya* (“quantity, a state or condition of life like youth, death”)

◇ *vi-star-êṇa* (“at length”) ← *vi-stara* (“extension, detail”, see *stṝ* in the dictionary)

◇ *sahas-ā* (“with might → forcibly, suddenly”) from *sahas* n. (“might, power”)

E.4.3. Ablative

◇ *a-cir-āt* (“for a short time”) ← *a* + *cira* (“long”)

◇ *dūr-āt* (“from afar”) ← *dūra* (“far”)

E.4.4. Locative

◇ *cir-ê* (“in a long time → finally”) ← *cira* (“long”)

◇ *dūr-ê* (“far away”) ← *dūra* (“far”)

◇ *sa-pad-i* (“immediately”) ← *sa* (“together”) + *pad* m. (“foot”)

E.4.5. *tas* suffix

The *tas* suffix is used in the ablative sense.

◇ *agra-tas* (“first, in front”) ← *agram* (“top, summit, beginning”)

◇ *grāma-tas* (“from the village”) ← *grāma* (“village”)

◇ *tvat-tas* (“from you”) ← *tvad* (“you”)

◇ *pṛṣṭha-tas* (“behind”) ← *pṛṣṭham* (“back”)

◇ *śāstra-tas* (“according to the *śāstra*s”) ← *śāstram* (“text, manual”)

◇ *sva-tas* (“with one’s own power”) ← *sva* (“own”)

E.4.6. *śas* suffix

śas is added to numbers or quantifiers.

◇ *êkâika-śas* (“one by one”) ← *êka* (“one”) + *êka* + *śas*

◇ *prāya-śas* (“usually, probably”) ← *pra-aya* (“quantity, a state or condition of life like youth, death”)

◇ *śata-śas* (“by the hundred”) ← *śatam* (“hundred”)

E.4.7. *vat* suffix

Probably related to *vant* in forms like *bala-vant* (pp. 237), many nouns can take the *vat* suffix:

◇ *kapi-vat* (“like a monkey”) ← *kapi* (“monkey”)

E.4.8. *dhā* suffix

dhā can often be translated as “-fold”

◇ *dvi-dhā* (“twofold”) ← *dvi* (“two” in compounds)

◇ *bahu-dhā* (“manifold”) ← *bahu* (“many”)