

CHAPTER 5

CASE ENDINGS

5.1 INTRODUCTION

If the theory presented in the foregoing chapters is correct, there was a period of common Balto-Slavic development between the times of IE linguistic unity and the separation into a Baltic and a Slavic branch. To this period belong the earliest retraction of the ictus from medial syllables in mobile paradigms, the extension of barytonesis to nouns with vocalic stems, the oxytonesis in paradigms with end-stressed forms, the retraction of the ictus known as Hirt's law, and the retraction from final open syllables in disyllabic word forms (cf. Kortlandt 1974). The decisive argument for assuming a separate Balto-Slavic period is not the mere existence of common innovations but the shared chronology of these innovations. It follows that the Balto-Slavic period comprises at least the period between the first common innovation after the dissolution of the IE linguistic unity and the last shared development of the two branches.

In view of this result, we have to assume that there was a common Balto-Slavic flexional system before the separation of the branches. In this chapter I shall try to reconstruct the case endings of the substantive at the end of the Balto-Slavic period, concentrating upon the points where the accentuation provides valuable information. At this stage, there were four short vowels **i*, **e*, **o*, **u*, five short vowels before laryngeal **iH*, **eH*, **aH*, **oH*, **uH*, at least four long vowels **ē*, **ā*, **ō*, **ā̄*, and a large number of diphthongs. The syllabic resonants had been lost, cf. Lith. *vil̄kas*, *gurkl̄ys*, Polish *wilk*, *gardło*, going back to **il*, **ur*.

5.2 NOMINATIVE

The nominative singular is either sigmatic or asigmatic. In masculine and feminine nouns we find **-s* after **o*, **i*, **u* and zero after **H*, **r*, **n*, e.g. Lith. *diēvas*, *ašis*, *sūnūs*, *žiemà*, *patì*, *žēmė*, *duktė̄*, *akmuõ*. The sigmatic ending is also present in the participles, e.g. Lith. *sukā̄s*.

The neuter ending is zero except for the *o*-stems, which will be discussed below.

The circumflex intonation of the ending in Lith. *žėmė* presents a problem. Endzelin's suggestion of analogy after *duktė* is not convincing. If the contention that a Balto-Slavic acute goes back to a laryngeal is correct, the circumflex cannot simply be ascribed to a contraction because the laryngeal was word-final. It is possible that the laryngeal was regularly lost after a long vowel, cf. Lith. *duōs*, SCr. *dā* < **dōHs*. On the other hand, Lith. *žėmė* is the expected form of the acc.sg. if the hypothesis of regular loss of a word-final resonant after a long vowel is correct. In the latter case, the development of **ē* < **ēN* < **eHm* is analogous to the development of **ē* < **ēr* in *duktė* or **ā* < **āN* < **aHm* in *rañka*. A definite conclusion does not seem possible on the basis of the available evidence. Apart from the isolated nom.sg. form, the paradigm of *žėmė* has been remodelled after the paradigm of *rankà*. Since it is impossible to distinguish between the original and the analogous forms, I shall leave the paradigm of *žėmė* out of consideration in the sequel. I have no satisfactory explanation for the circumflex in Slovene *krī*, which may or may not be analogical after *kōst*, cf. SCr. *křv*, gen.sg. *křvi*. The original acute has been preserved before the formative suffix in **jęzýkǫ*, cf. OPr. *insuwis*.

The nominative plural of masc. and fem. nouns ends in *-*es* except for the *o*-stems, e.g. Lith. *rañkos*, with *-*ās* from **aHes*, dial. *ākmenes* (Stang 1966:222), OChSl. *kamene*, *synove*, and *potǫje* < **ejes* with reduction of **e* before **i*. The nom.pl. ending of Lith. *ākys*, *sūnūs* probably goes back to the ending **iHes*, **uHes* of the corresponding *H*-stems, cf. Czech *cirkve*, Skt. *tanúah*. The neuter nom.pl. ending is *-*aH*, e.g. SCr. *sěla*, *pòlja*, *nebèsa*, Slovene *telęta*.

One of the most difficult problems in Baltic historical grammar is the nom.pl. ending of the *o*-stems, e.g. Lith. *vilkaĩ*. The ending, which may or may not be identical to the ending in the adjective *geri* and the pronoun *tię*, is enigmatic in all respects. Firstly, the ictus has escaped both the early Balto-Slavic barytonesis and the late Balto-Slavic retraction from final syllables in disyllabic words. Secondly, it is unclear why *-*ai* has not regularly developed into *-*ie* in the noun. Thirdly, the intonation presents a problem.

The IE ending *-*o-es*, which is still found in Skt. *vřkāh* and Gothic *wulfōs*, and also in Oscan-Umbrian, was replaced by the pronominal ending *-*oi* in the majority of IE dialects, e.g. Gr. *lukoi*, Lat. *lupi*,

OChSl. *vl̥ci*. This replacement may have been a common innovation in the central IE dialectal area. In any case it must go back to the earliest dialectal period because it was apparently earlier than the Balto-Slavic barytonesis, which belongs to the oldest innovations of the branch. The fact that the barytonesis did not reach the nom.pl. of the *o*-stems can only be explained by assuming that the ending differed considerably from the other flexion types.

The question why the ictus was not retracted in accordance with Ebeling's law, as it was in the loc.sg. of the *o*-stems, is more complicated. I think that the answer is provided by the Slavic material. The nom.pl. OChSl. *vl̥ci* differs from the loc.sg. OChSl. *vl̥cě* just as the imperative *beri* differs from the old medial perfect *vědě*. The development of **oi* into *i* instead of *ě* in *beri* is best explained by assuming a narrowing before word-final **S* at some stage in the history of Slavic, cf. Gr. *phérois*. This assumption is supported by the development of **-ōiS*, **-oHns* into **-ȳ*, **-y*, OChSl. *vl̥ky*, as opposed to *-u*, *-q* from **-ōi*, **-ont*. Similarly, we have to assume that the nom.pl. *vl̥ci* goes back to the enlarged form **vilkois*, with **-s* analogically after the other flexion types, as opposed to the loc.sg. *vl̥cě* < **vilkoī*. The only problem in this approach is the chronology of the enlargement. On the basis of Lith. *vilkaī* I assume that it goes back to the Balto-Slavic period. The final **-s* distinguished the noun from the adjective, which simply had the pronominal ending, like Gothic *blindai*. In Slavic, the sigmatic ending was later extended to the adjective.

This solution accounts for two problems but creates a third one, viz. the subsequent loss of the final **s* in Baltic. I think that the latter phenomenon is explained by the diphthong *-ai*, which is in turn explained by the presence of the **s*. Elsewhere I have pointed out that the difference between Lith. dat.sg. *vil̥kui* < **-ōi* and inst.pl. *vil̥kaīs* < **-ōis* is a valuable indication for the relative chronology of the (East) Baltic monophthongization and the shortening of long diphthongs (Kortlandt 1974). The monophthongization entailed the well-known shift in the ablaut relations. This reshuffling must have occurred in the same period as the shortening of long diphthongs in view of the many doublets with *ai* and *ui* (cf. Stang 1966:71). Most probably, length was neutralized in closed final syllables before the monophthongization, whereas the shortening of word-final long diphthongs was posterior to the reshuffling. As a consequence of the neutralization, the nom.pl. **vilkois* and the inst.pl. **vil̥kōis*

became homophonous. The syncretism did not take place in the adjective and the pronoun, which had no final **s* in the nominative. The homophony in the noun was resolved by elimination of the final **s* after the monophthongization of relevantly short **oi*. Thus, we arrive at nom.pl. **tē vilkai* versus inst.pl. **taiS vilkaiS*. The relation between **ē* and **ai* was particularly clear because both of them alternated with **ai* in unstressed syllables, where the opposition was neutralized. After the introduction of unstressed **ē*, the alternation between **ē* and **ai* was suppressed except in the isolated paradigm Latv. *iēt*.

Finally, the intonation has to be taken into account. If the above hypothesis is correct, the circumflex in the noun is original and the acute in the adjective must be explained as a secondary development. I think that it must be connected with the loss of the neuter gender in Baltic. The form Lith. *gerì* has probably arisen as a contamination of the masculine **geroi* and the neuter **geraH*. This is not the only contamination of this kind, cf. below.

The nominative and the accusative of the dual ended in **H* or **i*, e.g. Lith. *vilkù, rankì, avi, sùnu*, OChSl. *vl̥ka, izě, r̥očě, kosti, syny* < **oH, *-oi, *-aHi, *-iH, *-uH*. The old accentuation may have been preserved in Slovene *góri* < **gorì*, while the stress was analogically retracted elsewhere, e.g. Lith. *gálvi, kélmu*, Slovene *gubê, možâ, kostî* < **gûbê, *môžâ, *kòsti*, cf. nom-acc.pl. *gorê, kostî*. There are a few OLith. instances of the old nom.du. ending of the consonant stems **-e*, which is also found in Greek.

5.3 ACCUSATIVE

The acc.sg. ending was **-m* for masculine and feminine nouns, e.g. Lith. *ākmeni, nākti, sùnu*, OChSl. *kamenь, noštь, synь* < **-iN, *-uN*. Stem-final **H* was lost before this ending, e.g. Lith. *rañka*, OChSl. *r̥ok̥* < **-q̄*. The *o*-stems present a problem. The Slavic material points to narrowing of **o* before word-final nasal, e.g. OChSl. *vl̥k̥* < **vilkuN*. In spite of Lith. *vilk̥* I think that this narrowing goes back to the Balto-Slavic period. There are several arguments for this point of view. Firstly, the regular reflex of the ending **-oN* is present in the gen.pl. Lith. *vilkū*, cf. below. Secondly, there is a chronological argument. In Slavic we find a nasal vowel in the 3rd plural of the thematic aorist, e.g. OChSl. *sědq* < **-ont*. Consequently, the narrowing

of **-oN* into **-uN* must have been anterior to the loss of word-final **t*. But the latter phenomenon must be dated in the Balto-Slavic period because it preceded the retraction of the ictus from final open syllables in disyllabic words (Ebeling's law), cf. Lith. gen.sg. *vīlko*, 3rd sg. *nėša*, SCr. aor. *něse*. Thirdly, the narrowing must be viewed in connection with the loss of the neuter gender in Baltic.

The nom. and acc.sg. of the neuter *o*-stems ended in **-om*, cf. Skt. *yugám*, Gr. *zugón*. In Slavic there is no narrowing in the IE oxytone neuters, e.g. OChSl. *igo*, but there is in the IE barytone neuters, e.g. OChSl. *dvor*, cf. Skt. *dvāram* (see Illič-Svityč 1963:124). This must be explained by the substitution of the pronominal ending for the ending **-om* in the oxytone neuters. Here again the chronological problem presents itself. In view of the absence of mobility within the singular of neuter paradigms, we have to assume that the old oxytone neuters were barytonized as a result of Ebeling's law and that the historical oxytone neuters in Slavic can only have arisen as a result of Dybo's law. Consequently, the replacement of the ending by that of the pronoun must be dated in the Balto-Slavic period. Thus, I assume that the old neuter ending in Lith. *šálta* was not confined to the adjective at an earlier stage. This is confirmed by certain loan words from Baltic in Finnish.

The question remains why the replacement of the ending **-om* was confined to IE oxytone neuters. I think that the reason is found in the early Balto-Slavic barytonesis. After the rise of lateral mobility in the polysyllabic consonant stems (Pedersen's law), the retraction of the ictus in the acc.sg. form was extended to the other flexion types. Consequently, the acc.sg. ending of the masc. *o*-stems **-oN* became marked in relation to the other case endings of the oxytone paradigm as an unstressed ending. The re-evaluation of the ending **-oN* as markedly unstressed, which was perfectly compatible with the existence of barytone neuter *o*-stems, was hampered by the existence of oxytone neuters in **-oN*. The antinomy was resolved by the substitution of the pronominal ending in the oxytone neuters. The replacement preceded the narrowing, which in turn preceded the loss of final **t*. Thus, we arrive at the following relative chronology: (1) barytonesis, (2) replacement of the neuter ending, (3) narrowing of **o* before final nasal, (4) loss of final **t*, (5) Ebeling's law. The replacement of **-oN* in the oxytona and the narrowing of **-oN* in the barytona led to the separation of the two neuter paradigms and to the merger of the old barytone neuters with the barytone masculine *o*-stems. Ebeling's law barytonized

the remaining neuters, which then merged with the masculines in Baltic, but not in Slavic, where the old masc. nominative form was lost.

There were three motive forces for the replacement of the old accusative ending **-uN* by **-oN* in the *o*-stems in Baltic. Firstly, the nom. and acc.sg. were in every other flexion type characterized by one and the same vocalic formative before the consonantal case marker. Secondly, the replacement removed the homonymy between the acc.sg. and gen.pl. endings. Thirdly, the neuter nom. and acc.sg. was already characterized by the vowel **o*, after which the consonantal case marker was added. In Slavic the old masc. nominative was replaced by the accusative form after the general loss of final consonants had yielded the syncretism of nom. and acc.sg. in the *i*- and *u*-stems and the rise of new neuter words in *-o*, e.g. OChSl. *slovo*. These developments eventually led to the merger of the masculine *o*- and *u*-stems as well as to the merger of the neuter *o*- and *s*-stems.

On the basis of these considerations I assume for the last stage of Balto-Slavic the existence of three *o*-stem paradigms. There were stem-stressed masculines with a nominative in **-os*, e.g. **vilkos*, or **-uN*, e.g. **dvoruN*, and an accusative in **-uN*. There were masculines with an end-stressed nominative in **-os* and a stem-stressed accusative in **-uN*. And there were neuters with a stem-stressed nom.-acc. in **-o*. The second type was lost in Slavic and the third type in Baltic. The previous existence of an asigmatic nominative in Baltic is still confirmed by OPr. *assaran*, etc.

The accusative plural ended in **-HNs*, e.g. Lith. *vilkùs*, *avìs*, *súnus*, *šunìs*, *rankàs*, OChSl. *vľbky*, *roky*, OPr. *rānkans*. The laryngeal may or may not offer an explanation for the long vowel in Skt. *vīkān*, *āvīn*, *sūnūn*, where the *ad hoc* hypothesis of lengthening before **-ns* is not satisfactory. The ending **-HNs* may or may not have resulted from a blending of **-Hs* and **-Ns*, cf. Skt. *ásvāḥ*, Gothic *gibōs* but *wulfans*.

5.4 GENITIVE

The gen.sg. ending was **-es* after a consonant, including **H*, e.g. Lith. *rankōs*, with **-ās* < **-aHes*, OChSl. *kamene*, *svekrōve* < **-enes*, **-uHes*. The circumflex in Lith. *pačiōs*, which goes back to **potīaHs*, is borrowed from the *aH*-stems. In the *i*- and *u*-stems the IE endings have been preserved in Lith. *ašiēs*, *sūnaūs*, OChSl. *kosti*, *synu* < **-eis*, **-ous*.

The retraction of the ictus in Slavic presents a problem. The old accentuation is still found in Old Russian (cf. Stang 1957:87). In other dialects the ictus was retracted after the loss of the final *s in order to avoid homonymy with the locative. The long vowel which resulted from the diphthong gave rise to the neo-circumflex in Slovene *niti*, cf. nom.sg. *nit*. The gen.sg. ending of the *o*-stems was *-ā, which goes back to the IE ablative, e.g. Lith. *vīlko*, OChSl. *vlōka*. The alleged preservation of the old IE genitive in OPr. *deiwās* is purely hypothetical. As Vaillant has pointed out (1958:30), the form is best explained by assuming the addition of a secondary *-s to the Balto-Slavic genitive on the analogy of the other flexion types, all of which had a genitive in *-s, cf. OPr. *ālgas* with the same ending.

The enigmatic gen.sg. ending in the Slavic *aH*-stems must be due to the substitution of the acc.pl. ending after the loss of final *s. The latter phenomenon caused the syncretism of nominative and accusative in a number of flexion types, which then could be extended analogically. Presumably the acc.pl. ending was first introduced in the nom.pl. of words where the loss of final *s had yielded homonymy of nom.sg. and nom.pl. forms, e.g. **òsnovā*. The number of words with *-ā in the nom.sg. was considerably increased by Van Wijk's law, e.g. **vòlā*. The old nom.pl. form in *-ā was finally lost when the levelling of quantity in unstressed endings made the confusion with the nom.sg. form complete. If this view is correct, concurrent nom.pl. forms may have existed during a considerable period. The existence of doublets during the period of gradual replacement led to the introduction of the new ending in the gen.sg. form, where both the old ending and the motivation for an analogical replacement were the same.

The IE gen.pl. ending was *-om, which was narrowed to *-uN in the Balto-Slavic period, as was pointed out above, e.g. Lith. *akmenū*, OChSl. *kamenъ*. The same ending is found in the other flexion types, e.g. Lith. *vilkū*, *raņkū*, OChSl. *vlōkъ*, *rōkъ*, and *pōtъjъ*, *synovъ*, *svekrōvъ* < *-eioN, *-ouoN, *-uHoN. Like in the nominative, the ending of Lith. *avū*, *sūnū* goes back to the ending *-iHoN, *-uHoN of the corresponding *H*-stems, which developed into *-iuN, *-uN after the loss of the laryngeal. The old gen.pl. ending is still found in Skt. *asmākam*, *yuṣmākam*, which betray its origin. Elsewhere the long vowel resulting from the contraction with a preceding formative vowel has been generalized, e.g. Skt. *padām*, Gr. *podōn*. The Italic and Celtic evidence is inconclusive as to the length of the desinential vowel.

The supposition that the gen.pl. ending goes back to IE **-ōm* is not just highly improbable because of Lith. *akmuõ* < **akmōN*, but simply impossible because of Slavic **-ǝ*. There is no reason to assume that the ending was shortened at any stage in the development of Slavic. The connection with the apparent metatony before the gen.pl. ending, which is supported by Van Wijk, Pedersen, and Stang, is incorrect because it neglects the chronology of the Slavic developments: the shortening, if any, must have preceded the rise of the new timbre distinctions, whereas the metatony must have been later, cf. Slovene *gór*. The lengthening of short stem vowels in the gen.pl. results from the retraction of the stress from a final jer and its analogical extension, as was pointed out above. The retraction must be dated between Van Wijk's law and Dybo's law. The extension did not affect acute stem vowels because they were indifferent with respect to length at that stage. After the loss of the laryngeal feature, length was generalized in the gen.pl. in Slovene (neo-circumflex) and Serbo-Croat. On the other hand, the new short rising vowel was lengthened in Czech *kráva*, but not in *krav*. Thus, the whole development of quantitative alternations in the gen.pl. is posterior to the rise of the new timbre distinctions.

The genitive and locative of the dual ended in **-ou* or **-ous*, e.g. OChSl. *vlǫku*, *rǫku*, *synovu*. The old locative has been preserved in Lith. *dviejau*, *pusiaũ*, pointing to **-ou*, which is confirmed by the Avestan loc.du. *zastayō*. It is possible that Skt. *vīkayoh* represents the old genitive, but it is unclear whether this form ever existed in Balto-Slavic. Unfortunately, the Slavic accentuation has not been preserved, except for the isolated form ORu. *nogú* (Stang 1957:63). It does not seem possible to base any conclusions on SCr. *rūkū*, where the short stem vowel points to a contraction in the desinence. There is a variant Lith. *dviejaus*, but this form can easily have arisen after the model *geriaũ*, *geriaūs*. The accentuation of *pusiaũ* may also be due to the influence of other adverbial formations.

5.5 LOCATIVE

The locative offers more problems than any other case. The IE loc.sg. ending **-i* is found in OChSl. *vlǫcě*, *rǫcě* < **-oi*, **-aHi*, and in Lith. *namičė*, dial. (Buividze) *vilkičė*, where the final accentuation must be borrowed from the loc.sg. of other flexion types. If this explanation

is correct, the ending of Lith. *labāĩ* is the regular reflex of unstressed *-oi, which later received the ictus after the end-stressed forms of the adjectival paradigm. The accentuation of Ru. *zúbe*, Čak. (Novi) *vľasi* must be old because it is the only stem-stressed locative and lacks a model for analogical development. Both the retraction of the ictus in this form and the long vowel in the Slavic loc.sg. ending of the *i*- and *u*-stems point to the absence of a laryngeal. On the other hand, the final accentuation in the latter forms presents a problem. I think that we have to start from a trisyllabic form **kosteji*, where the final accentuation which originated from the Balto-Slavic oxytonesis was regularly maintained, and that the ending *-oui was analogically replaced. The locative ending in such forms as OChSl. *kamene* is enigmatic.

In Baltic the locative endings have been enlarged by the fusion with a postposition **en*. The resulting forms present three problems: the acute intonation of the postposition, the loss of a preceding laryngeal in such forms as Lith. *raĩkoje*, and the original shape of the ending to which the postposition was added. After Būga and Stang, I assume that Lith. *butė* goes back to **būtē eN* or **būtē ɛ*. If my contention that at this stage the laryngeal was something like a glottal stop is correct, we can write **H* instead of the word boundary: **būtēHeN*, **būtēHɛ*. When the laryngeal lost its segmental status and became a feature of the vowel, the form changed into **būtė*, which regularly developed into *butė*. In the other flexion types the development was slightly more complicated. The form **ròNkaHi eN* developed into **rànkāiė*, with dissimilation of the first laryngeal, so that the ictus was not transferred according to de Saussure's law in Lithuanian. In *sūnujė* there is a short vowel in the medial syllable. Since this is the only flexion type where we find a short vowel in the prefinal syllable, it cannot be the result of an analogical development. I think that the form goes back to **sūnujė* < **suHnuHi eN*, where the ending was borrowed from the *uH*-stems, like in the nom. and gen. forms of the plural. The long vowel in *avyjė* must be analogical after the one in *gaidỹjė*, which is the expected loc.sg. form if the contraction in *gaidỹs* is older than the monophthongization. The forms OLith. *nakteie*, *ugniþ* may go back to expansions of the original loc.sg. forms **nokteji*, **ugniHi*.

The IE loc.pl. ending *-su is found in OChSl. *kostьxъ*, *synьxъ*, *rokaxъ* with analogical **x*, and *vľcěxъ* < *-oiSu, cf. Skt. *vľkeṣu*. The Lithuanian forms which end in -se have been remodelled after the

singular. The old quantity has been preserved in the adverbial form *akisù* (Stang 1966:213) and in dial. *avisù, tuŕguse*. The long vowel in *avysè, rañkose* is borrowed from the loc.sg. form *avyjè, rañkoje*. I think that the ending *-uose* of the *o*-stems goes back to an analogical formation **-òsu* after **-āsu* in *rañkose*, and that the nasal vowel found in certain dialects is due to a much later influence of the acc.pl. form (illative). The latter influence cannot have been old because of the intonational difference. In Slovene we find the expected retraction of the stress according to Hirt's law in the *aH*-stems and final accentuation in the *o*-stems, e.g. *goràh, možéh*, cf. Čak. (Novi) *goràh, vlāsìh*, going back to **-aHsu, *-oiSu*. This confirms that the loss of the laryngeal in Lith. *rañkose* is an innovation.

5.6 DATIVE

The dat.sg. ending **-ei* is found in OChSl. *ročě*, with **-āi < *-aHei, svekrōvi < *-uHei, synovi, kameni*. The same ending **-āi* is found in Lith. *rañkai*. In the *o*-stems the ending is **-ōi*, which is represented in Lith. *vīlkui*, OChSl. *vlōku*. The latter form is due either to the *Umlaut* of the final palatal element after the long rounded vowel, which is an *ad hoc* supposition, or simply to its loss in the period between the change of final **ō* into **ū* in OChSl. *kamy* and the monophthongization of diphthongs, when **ou* became **ō*, e.g. in the gen.sg. *synu*. The latter development preceded the rise of the new timbre distinctions, when the opposition */ō ~ ū/* was rephonemized as */u, ū ~ y, ŷ/*. The same loss of the final semivowel in the dat.sg. ending of the *o*-stems is found in Lith. dial. (Gervėčiai) *vīlkuo*. The ending **-ei* in the *i*-stems goes back to a Balto-Slavic haplological simplification, e.g. OChSl. *kosti*, Lith.dial. (Gervėčiai) *āvie*.

The dat.pl. ending was **-mus*, e.g. Lith. *rañkoms, vilkams, avims, sūnūms*, OChSl. *ročamъ, vlōkomъ, kostьmъ, synьmъ*. The retraction of the ictus according to Hirt's law in Lith. *galvóms*, Latv. *siēvām* was analogically extended to the other end-stressed types. Later the laryngeal was eliminated in Lith. *rañkoms* after the locatives *rañkoje, rañkose*, so that de Saussure's law did not operate. In Slavic the retraction remained confined to the *aH*-stems, cf. Slovene *goràm, možêm < *-aHmus, *-omus*. The ending in OPr. *gennāmans, waikammans* is due to the influence of the acc.pl. ending in *gennans, deiwans*.

The dative and instrumental of the dual ended in **-maH*, e.g. OChSl. *vl̥koma*, *syn̥ma*, Slovene *gorâma*. The final vowel was lost in Lithuanian, where the intonational difference between dat.du. *vilkáms*, *galvóm*, *sūnum* and inst.du. *vilkaĩm*, *galvõm*, *sūnuĩm* betrays an earlier accentual difference **-àmaH*, **-amàH* etc., which must have been introduced analogically after the plural forms.

5.7 INSTRUMENTAL

The inst.sg. form ended in **H* or **mi*, e.g. Lith. *dievù*, *avimì*, *sūnumì*, OChSl. *pqt̥m̥b*, *syn̥m̥b*. The ending of Lith.dial. (N.W. Žem.) *sūnoĩmi*, which points to **-miH*, must be analogical after the plural. In the *aH*-stems I assume concurrent forms, e.g. **golHvaH*, **golHvā*, with **-ā < *-ā̃*, like in the acc.sg. ending. Since the ictus was regularly retracted in the second variant but not in the first, the first variant was homonymous with the nom.sg. and the second with the acc.sg. form. The homonymy was eliminated by a contamination of the two variants, cf. Lith. *gálva*, which goes back to the first variant with the accentuation of the second, and *šaltája*, which points to the second variant with the accentuation of the first. In Slavic we find pronominal endings in the *o*- and *aH*-stems, e.g. *vl̥kom̥b*, *r̥koj̥o*, and analogically *kost̥bj̥o*.

The inst.pl. ending was **-ōiS* in the *o*-stems and **-miHS* elsewhere, e.g. Lith. *vilkaĩs*, *raĩkomis*, *avimis*, *sūnumis*, Slovene *rāki*, *kōnji*, *l̥eti*, *gorāmi*, *n̥itmi*, *kostm̥i*. In the *aH*-stems the ictus was retracted according to Hirt's law, cf. Čak. (Novi) *gorāmi*. The final accentuation was restored in Lith. *galvomis* after the other flexion types, and the laryngeal in the medial syllable was eliminated on the analogy of the locative so that de Saussure's law did not operate. In the *o*-stems, the ending **-ōiS* was regularly shortened in Lith. *vilkaĩs* and narrowed in OChSl. *vl̥ky*, *l̥ety*. The narrowing of the diphthong before word-final **S* in the latter forms is known from the nom.pl. ending in *vl̥ci*, and the loss of the palatal element after a long rounded vowel from the dat.sg. ending in *vl̥ku*. It follows that these two developments must have taken place in this order. The neo-circumflex in Slovene *gorāmi* is analogical after the one in *ženāmi*, where it is regular, and points to a generalization of the long vowel, cf. *kostm̥i < *kostm̥ĩ* after *n̥itmi < *n̥it̥m̥i*. The ending in Slovincian *r̥bam̥i* is a contamination of **-ỹ* and **-mi*, **-m̥i*, as was pointed out above.