Towards a standard of glossing Baltic languages: The Salos Glossing Rules

Nicole Nau
Adam Mickiewicz University, Poznań
Peter Arkadiev
Institute of Slavic Studies, Russian State University for the Humanities & Sholokhov Moscow State University for the Humanities, Moscow

This paper proposes guidelines for interlinear morpheme glossing of modern Latvian and Lithuanian. The general principles follow the Leipzig Glossing Rules, a widely accepted standard in contemporary linguistics. The authors show how these rules may be adapted to the specifics of Baltic morphology. Details of nominal and verbal morphology of Latvian and Lithuanian are discussed and illustrated with examples of adequate glossing. Wherever possible, the same principles are proposed for both Latvian and Lithuanian, which will facilitate a comparison of these languages. However, different solutions are proposed in some cases where the two languages differ significantly and different interpretations are possible, and those are discussed in particular detail.

1. Introduction[1]

Interlinear morphemic glossing of examples from languages other than the language of description has become a common practice in linguistic studies that are aimed at a broader audience. Although the usefulness of morphemic glossing is evident to any linguist interested in aspects of the grammar of a language they are not familiar with, the technique has entered linguistic studies rather late (see Lehmann 2004 for the history of interlinear morphemic glossing). It is still no standard part of university programs focusing on individual languages or branches of languages, and scholars starting to use glossing are often confused by the variety of models they encounter in current publications by linguists of their field. Baltic linguistics is no exception—compare, for example, the glossing used in

Nau (1998) and Holvoet (2007). A certain standard has developed in linguistic typology, starting with methodological considerations by Lehmann (1982) und advancing during the 1990s within the EUROTYP project (Lehmann et al. 1994). On this basis, typologists at the Max-Planck Institute of Evolutionary Anthropology in Leipzig worked out a set of conventions called the Leipzig Glossing Rules, which have become a standard for, or at least inspired the glossing of, many linguistic descriptions, not only within the field of linguistic typology.[2] The Leipzig Glossing Rules (LGR) provide clear general guidelines for morphemic glossing.

However, when applying the rules to a particular language, authors face choices and questions to which there is no uniform answer. They may wish to use labels for categories that are not listed in LGR, or to find a more convenient glossing for frequently appearing morphemes. For example, according to LGR a marker of past passive participle may be glossed as "PST.PASS.PTCP". Given that this meaning is realized in the Baltic languages by a single phoneme/letter, a gloss consisting of 13 characters is rather inconvenient. There are furthermore many language-specific aspects that general guidelines cannot approach, for example, the order of categories expressed cumulatively in a portmanteau-morph, the question of inherent categories, or the number and shape of allomorphs. Glossing, and especially morphological segmentation, is far more than a technical matter: proper glossing presupposes morphological analysis (cf. Lehmann 2004, 1838–1839). As many structures may be analyzed in different ways, there are different possibilities for glossing and different opinions about the "best" way to do it. Thinking about glossing has a heuristic function, and may even lead to new insights into the morphological system of a language. Nevertheless, glossing as a technique is first of all aimed at readers. A glossing system must be general enough to be of use to linguists of different persuasion, and must allow showing more or fewer details of morphological structure, depending on the focus of individual studies.

If LGR have become, and continue to be, a general standard, their adaptation to particular languages is a new important issue for discussion

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[2] The current version of May 2015 is published on the website of the institute at https://www.eva.mpg.de/lingua/resources/glossing-rules.php as an anonymous paper. In earlier versions, Balthasar Bickel, Bernard Comrie, and Martin Haspelmath figured as authors. The linguistic department of the Institute of Evolutionary Anthropology was closed in 2015 and the LGR have been released into the public domain.

among specialists of these languages (see, for example, Vicente *et al.* 2015 for Semitic languages). In this paper, we propose guidelines for glossing data from contemporary standard Latvian and Lithuanian. They are based not only on our own individual considerations and decisions reflected in previous work on the grammar of Latvian and Lithuanian, but as much on discussions—often heated—with colleagues working on these languages. As an important part of this discussion has taken place during summer schools and workshop meetings in Salos (Lithuania),[3] we will call our proposal *The Salos Glossing Rules* (sgr).

We hold that a common standard for glossing Baltic languages would not only be useful to authors and editors, but is also desirable for both inner-Baltic and cross-linguistic comparison. The latter is warranted by taking lgr as a base. Inner-Baltic comparison will be facilitated by adopting the same rules of segmentation and categorization for Latvian and Lithuanian. However, as there are some significant differences between the morphological systems of the two languages, this is not always possible. Furthermore, different scholars may prefer different analyses (even the two authors of this paper have divergent views about some phenomena, which is one of the reasons for the separate treatment of Lithuanian and Latvian finite verb forms). Here it is important to stress that interlinear morpheme glossing is a tool within synchronic descriptions of languages and is not meant to clarify historical relationships. It is concerned with the shape and content of wordforms as they appear in written and spoken texts, not with assumed underlying abstract or reconstructed forms.

Our paper is structured in the following way. Section 2 presents general principles of morphemic glossing. Section 3 discusses glossing and segmentation of nominal wordforms, that is, nouns, adjectives, numerals, and pronouns. As nominal morphology in Lithuanian and Latvian is largely parallel, most rules will apply to both languages. In Section 4 we turn to verbs, and here we find it necessary to discuss finite verb forms of Lithuanian and Latvian separately. In Section 5 we shortly consider indeclinable words such as adverbs and particles.

While the aim of this paper is to contribute to the standardization of the glossing of Baltic languages, we acknowledge that not everything can or should be subject to strict rules. Authors should have a certain degree of freedom to adapt rules to the specific needs of their topic or argumen-

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[3] See http://www.academiasalensis.org

tation. In several instances we give alternatives for what in our eyes is "proper glossing", among which authors may choose. The only strict rule then is that authors be consistent in their choice.

2. General principles

The glossing rules laid out in the next sections are based on the Leipzig Glossing Rules (LGR, https://www.eva.mpg.de/lingua/resources/glossing-rules.php) and adapt their general principles outlined there, such as

- word-by-word alignment (LGR Rule 1): "Interlinear glosses are left-aligned vertically, word by word, with the example";
- morpheme-by-morpheme correspondence (LGR Rule 2): "Segmentable morphemes are separated by hyphens, both in the example and in the gloss. There must be exactly the same number of hyphens in the example and in the gloss";
- the use of small caps for grammatical labels (LGR Rule 3);
- the use of the period for one-to-many correspondence (LGR Rule 4): "When a single object-language element is rendered by several metalanguage elements (words or abbreviations), these are separated by periods";
- the use of square brackets for non-overt categories (LGR Rule 6): "If the morpheme-by-morpheme gloss contains an element that does not correspond to an overt element in the example, it can be enclosed in square brackets";
- the use of round brackets for inherent categories (LGR Rule 7): "Inherent, non-overt categories such as gender may be indicated in the gloss, but a special boundary symbol, the round parenthesis, is used".

There are some differences in the inventory of labels between our glossing rules and LGR. Our proposed grammatical labels needed for glossing Latvian and Lithuanian are given at the end of this article. Another difference is that our proposal is much more specific and gives suggestions and recommendations for segmenting and labeling concrete elements of the Baltic languages.

The overall aim of interlinear glossing is to enable linguists to understand the morphological structure of an unfamiliar language. From this follows the necessity of including information in the glosses that is obvi-

ous for scholars of Baltic languages. One consequence is that in general all inflectional categories are glossed; only exceptionally will we agree on a category as unmarked and not include it in the glosses. These exceptions are specified in the following sections. Of course, details of segmentation and glossing may vary according to the aim of the text one is writing. For example, derivational affixes are usually ignored, but in a paper on word-formation they will be segmented and glossed. A paper or book about a certain topic may introduce its own glossing conventions and labels for that particular topic, but should still follow the most basic principles.

In general, morpheme glossing relies on forms rather than on concrete meanings. It is advisable to settle for one gloss for a given morpheme and not change the glossing according to the different meanings this form may have in context. We call this the principle of "priority of form".[4] For example, the Latvian word *iesim* is glossed as a future form, even when it is used in an adhortative meaning (see below on the imperative). For verbal prefixes, which have a large range of not always clearly identifiable meanings, the suggested uniform gloss PVB will be sufficient for most purposes. It is easier to apply for writers and less confusing for readers than an attempt to accurately gloss the semantic, grammatical, or pragmatic meaning a verbal prefix or some other morpheme carries in a given context. However, in certain cases and in particular studies a departure from the principle of priority of form may be justified (some examples of this will be presented below), but the principles of applying non-standard labels have to be explained.

The most important thing is to provide the relevant grammatical information contained in a word-form, while segmentation and the meaning of individual formatives is sometimes less important (and often unimportant) or problematic. Therefore, for example, non-overt elements are not singled out, except for the situation where this is the point of discussion. Cf. the following examples from Latvian:

	Latvian		
	Usual way of glossing:	exceptional, when needed:	alternative:
(1)	*dzied*	*dzied*	*dzied-Ø*
	sing.PRS.3	sing.PRS[3]	sing.PRS-3

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[4] Of course, homonymous affixes, e.g. Lithuanian *-us* 'nominative singular' and *-us* 'accusative plural', let alone *-u* 'instrumental singular' *-u* '1st person present' need not and may not be glossed identically.

(2) *skolotāj!*   *skolotāj!*   *skolotāj-Ø!*
     teacher.VOC.SG   teacher[VOC.SG]   teacher-VOC.SG

Whatever the particular glossing used in an individual contribution, its application has to be consistent throughout; this regards both the use of glossing labels and morphological segmentation of wordforms. The latter is not necessary, but, unless explicitly specified and motivated by the goals of an individual contribution, either all segmentable wordforms are segmented, or none. Thus, both (3a) and (3b) are good.

(3) Lithuanian
  a. *žmonės*   *šoka*   *ir* *dainuoja*
     people.NOM.PL   dance.PRS.3 and sing.PRS.3
  b. *žmon-ės*   *šok-a*   *ir* *dainuoj-a*
     people-NOM.PL   dance-PRS.3 and sing-PRS.3

In contrast, segmenting only nominal endings but leaving verbs consistently unsegmented is not advisable, especially in Lithuanian, where stems and affixes of verbs can be easily identified (the situation in Latvian is different, see below). Inconsistent segmentation as shown in (3c) is not recommended and has to be explicitly justified.

  c. *žmon-ės*   *šoka*   *ir* *dainuoja*
     people-NOM.PL   dance.PRS.3 and sing.PRS.3
     'People are dancing and singing.'

If segmentation is applied at all, transparent and productive inflectional formatives (suffixes and prefixes) should always be segmented. Derivational affixes may be segmented if this is necessary for the exposition or if it is not possible to adequately render the meaning of a word with a given derivational affix in the English translation. This may often happen with verbal prefixes and diminutive suffixes, cf. example (4).

(4) Lithuanian
     med-el-is   *per-skait-ė*
     tree-DIM-NOM.SG   PVB-read-PST.3
     'little tree'   'read (through)'

Segmenting stem formatives such as the nasal infix or *-st* or *-n* suffixes in the present tense of some verbs is not necessary (for more on these issues see in the section on verbs).

Examples containing long stretches of text may be left unglossed and given a free translation only, with just the most relevant part, preferably the first or the last, provided with full glossing, as in (5). The part of the example which is not given interlinear glosses should be marked in the original and the free translation by square brackets.

(5) Latvian (ʟᴠᴋ 2013)
   [*Pateicoties tam, ka jūras ūdens ir vasarā uzkrājis lielu siltumu dau-dzumu,*]

   ziem-as   un *ruden-s*   *te*   *ir*
   winter(ꜰ)-ɴᴏᴍ.ᴘʟ and autumn(ᴍ)-ɴᴏᴍ.sɢ here be.ᴘʀs.3
   silt-āk-as   *nekā dziļ-āk*   *saus-zem-ē.*
   warm-ᴄᴏᴍᴘ-ɴᴏᴍ.ᴘʟ.ꜰ than deep-ᴄᴏᴍᴘ dry-land-ʟᴏᴄ.sɢ
   '[Due to the fact that the sea water has accumulated a large amount of warmth during summer,] winters and autumns are warmer here than further inland.'

3. Nominals

3.1. Nouns

3.1.1. Segmentation. Case and number

Nouns are glossed for the inflectional categories case and number, which are always expressed cumulatively. For most forms of Latvian and Lithuanian nouns, segmentation into stem and inflectional ending is straightforward. Morphonological alternation affects stems, not endings. The letter "*i*" in Lithuanian should belong to the stem when it merely indicates palatalization, and to the ending in other instances. Examples:

(6) Lithuanian
   brol-is,   *bit-ės,*   *akmen-s*
   brother-ɴᴏᴍ.sɢ bee-ɴᴏᴍ.ᴘʟ stone-ɢᴇɴ.sɢ
   broli-us,   *biči-ų,*   *akmeni-ui*
   brother-ᴀᴄᴄ.ᴘʟ bee-ɢᴇɴ.ᴘʟ stone-ᴅᴀᴛ.sɢ
(7) Latvian
   brāl-im,   *zem-i,*   *akmen-s*
   brother-ᴅᴀᴛ.sɢ land-ᴀᴄᴄ.sɢ stone-ɢᴇɴ.sɢ
   brāḷ-us,   *zemj-u,*   *akmeņ-i*
   brother-ᴀᴄᴄ.ᴘʟ land-ɢᴇɴ.ᴘʟ stone-ɴᴏᴍ.ᴘʟ

The nominative singular forms of the Lithuanian nouns like *akmuo* 'stone', *šuo* 'dog', *sesuo* 'sister', or *duktė* 'daughter' cannot be segmented into stem and ending. They may be analyzed as containing a zero ending or, alternatively, as realizing the grammatical information cumulatively with the lexical meaning in the stem. The absence of a separate marker for case and number may be indicated by the use of square brackets, but a simple glossing without such brackets is preferred, except for instances where the author wants to draw attention to this absence.

(8) Lithuanian
  akmuo   or *akmuo*
  stone.NOM.SG stone[NOM.SG]
  duktė   or *duktė*
  daughter.NOM.SG daughter[NOM.SG]

The same holds for vocative forms that may be analyzed as formed by truncation or containing a zero ending. In Lithuanian, these are vocatives from diminutives[5] like *broliuk* 'little brother':

(9) Lithuanian
  broli-uk   or *broli-uk*
  brother-DIM.VOC.SG brother-DIM[VOC.SG]

In Latvian, many dedicated vocative forms are built in this way. A vocative is glossed as such only when it differs from the nominative, cf. (10a) vs. (10b).

(10) Latvian
  a. *Labdien, skolotāj!*
    good.day teacher.VOC.SG / teacher[VOC.SG]
    'Good morning, teacher!'
  b. *Labdien, student-i!*
    good.day student-NOM.PL
    'Good morning, students!'

Further remarks on cases:

Lithuanian illative forms of nouns and adjectives are glossed as regular case forms:

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[5] The segmentation of the diminutive suffix is not obligatory, see below.

(11) Lithuanian
baudžiam-ojon   *atsakomyb-ėn*
criminal-ILL.SG.F.DEF liability-ILL.SG
'to criminal liability'

Latvian lacks a morphological instrumental case. It is however acceptable to gloss constructions such as the following as containing an instrumental:

(12) Latvian
meiten-e   *gaiš-iem*   *mat-iem*
girl-NOM.SG   fair-INS.PL.M   hair-INS.PL
or: fair-DAT.PL.M hair-DAT.PL
'a girl with fair hair'

For the case governed by the preposition *ar* 'with' the interpretation as accusative/dative is preferred (cf. MLLVG-I 1959, 738; LVG 2013, 626):

(13) Latvian
ar   *tēv-u,*   *ar*   *mās-ām*
with   father-ACC.SG   with   sister-DAT.PL
'with the father'   'with (my) sisters'

3.1.2. Gender in nouns

Gender is not an inflectional, but an inherent category in nouns. Therefore, it is not glossed together with case and number. Usually it is not indicated at all. If it is important to show to which gender a noun belongs (for example, when discussing agreement), the gender may be glossed under the stem as an inherent category:

(14) Latvian
lab-as   *grāmat-as*
good-NOM.PL.F   book(F)-NOM.PL
'good books'
(15) Lithuanian
lab-as   *ryt-as*
good-NOM.SG.M morning(M)-NOM.SG
'good morning'

This principle is applicable to all nouns, including those designating persons and appearing in pairs of masculine and feminine nouns, which makes them superficially look like adjectives.

(16) Latvian

dziedātāj-am,   *dziedātāj-ai*

singer-DAT.SG / singer(M)-DAT.SG singer-DAT.SG / singer(F)-DAT.SG

'singer' (referring to a man),   'singer' (referring to a woman)

(17) Lithuanian

mokytoj-as,   *mokytoj-a*

teacher-NOM.SG/teacher(M)-NOM.SG teacher-NOM.SG/teacher(F)-NOM.SG

'teacher' (referring to a man)   'teacher' (referring to a woman)

Nouns of "common gender" that may refer to both male and female persons without change in form are treated as two lexemes, one masculine and one feminine. As with other nouns, the indication of the gender as inherent category is optional.

(18) Lithuanian

   a. *tok-s*   *kvaiš-a*

      such-NOM.SG.M   fool-NOM.SG / fool(M)-NOM.SG

      'such a fool' (referring to a man)

   b. *toki-a*   *kvaiš-a*

      such-NOM.SG.F   fool-NOM.SG / fool(F)-NOM.SG

      'such a fool' (referring to a woman)

(19) Latvian

   a. *vien-s*   *no man-iem*

      one-NOM.SG.M of my-DAT.PL.M

      paziņ-ām

      friend-DAT.PL / friend(M)-DAT.PL

      'one of my friends' (referring to friends in general or male friends)

   b. *vien-a*   *no man-ām*

      one-NOM.SG.F of my-DAT.PL.F

      paziņ-ām

      friend-DAT.PL / friend(F)-DAT.PL

      'one of my friends' (referring to female persons only)

3.1.3. Nouns invariable in number

A characteristic feature of the Baltic languages is the existence of nouns that are used only or predominantly in one number, especially nouns used only in the plural. These are traditionally called *pluralia tantum* and *singularia tantum*. It has however been noted (LVG 2013,337–338) that this feature is one of usage rather than an invariable morphological feature of certain lexemes. For many if not all nouns that are traditionally thought of as invariable in number, a use in both numbers is possible and occasionally attested, for example, in poetic language.

(20) Lithuanian

… *su   vis-omis   bulgarij-omis   ir   lietuv-omis*
with all-INS.PL.F Bulgaria-INS.PL and Lithuania-INS.PL
'… with all various Bulgarias and Lithuanias' (LKT)

(21) Latvian

No   katr-as   šķērs-iel-as   iznāk-s
from each-GEN.SG.F cross-street-GEN.SG come_out-FUT.3
pa   pelēk-ai   skumj-ai.
PREP gray-DAT.SG.F sorrow-DAT.SG
'A gray sorrow creeps out of each side-street.' (a line by the poet Ojārs Vācietis, quoted in LVG 2013, 343); the noun *skumjas* 'sorrow' is usually a plural only lexeme.

Moreover, there are nouns with different lexical meanings in the singular and the plural, for example Lithuanian *met-as* (singular) 'time' / *met-ai* (plural) 'year', Latvian *rat-s* (singular) 'wheel' / *rat-i* (plural) 'cart'. For these reasons, and for the sake of simplicity and consistency of the glossing, it is in most instances advisable to treat pluralia tantum and singularia tantum as all other nouns and gloss the information about number with the ending.

(22) Lithuanian

met-as,   met-ai,   milt-ai,   marškini-ai
time-NOM.SG year-NOM.PL flour-NOM.PL shirt-NOM.PL

(23) Latvian

rat-s,   rat-i,   milt-i,   durv-is
wheel-NOM.SG cart-NOM.PL flour-NOM.PL door-NOM.PL

However, this solution is not always satisfying. Especially with count nouns that are *pluralia tantum* authors may wish to indicate that the plural is inherent in the lexeme rather than an inflectional category and that a plural form may refer to a single item. Therefore, authors may gloss plural as an inherent category. A combined solution is also admissible, indicating both the inherent category and the fact that the ending belongs to the class of plural endings.

(24) Lithuanian

marškini-ai   or: *marškini-ai*
shirt(PL)-NOM   shirt(PL)-NOM.PL

vien-i   *balt-i*   *marškini-ai*
one-NOM.PL.M white-NOM.PL.M shirt(PL)-NOM / shirt(PL)-NOM.PL

'one white shirt'

(25) Latvian

durv-is   or: *durv-is*
door(PL)-NOM   door(PL)-NOM.PL

pie   *durv-īm*
at   door(PL)-DAT / door(PL)-DAT.PL

'at the door'

3.1.4. Proper names

Declinable proper names are glossed for case and number according to the same principles as common nouns. However, since the indication of singular number for most proper names is redundant, it is admissible to omit it from glossing unless it is relevant; thus:

(26) Lithuanian

a. *Jon-as*   or *Jon-as*
Jonas-NOM.SG   Jonas-NOM
'Jonas'

b. *Lietuv-oje*   or *Lietuv-oje*
Lithuania-LOC.SG   Lithuania-LOC
'in Lithuania'

Place names that are used only in the plural are treated as described above for *pluralia tantum*; thus:

(26) Lithuanian

    c. *Šiauli-ai*   or: *Šiauli-ai*   or: *Šiauli-ai*

        Šiauliai-NOM.PL   Šiauliai(PL)-NOM   Šiauliai(PL)-NOM.PL

Personal names are glossed in their original form (not by an English equivalent name) or as PN. A replacement of Latvian and Lithuanian names by English names is admissible in the free translation, but only for constructed examples. Place names from Latvia and Lithuania are glossed in their original form, but one may omit diacritics in place names that are internationally known (*Riga, Klaipeda*). Place names from outside Latvia/Lithuania whose spelling has been adapted to the Latvian/Lithuanian orthography are translated by their form in English orthography. The same holds for personal names such as Lith. *Viljamas Šekspyras* 'William Shakespeare'.

(27) Latvian

    Jān-is   *brauca*   *ar*   *Mār-u*

    Jānis-NOM / PN-NOM   travel.PST.3   with   Māra-ACC / PN-ACC

    no   *Varšav-as*   *uz Viļņ-u*   *un*   *no*   *Cēs-īm*

    from   Warsaw-GEN   to   Vilnius-ACC   and   from   Cēsis(PL)-DAT

    uz   *Helsink-iem.*

    to   Helsinki(PL)-DAT

    'Jānis travelled with Māra from Warsaw to Vilnius and from Cēsis to Helsinki.' Or: 'John travelled with Mary…'

3.1.5. Indeclinable nouns and names

As the aim of glossing is to show the morphological make-up of words, the gloss of an indeclinable noun does not contain grammatical information. It is however admissible to give the categories that can be inferred from the linguistic context as non-overt categories, thus, using square brackets.

(28) Lithuanian

    gelton-i   *taksi* or: *gelton-i*   *taksi*

    yellow-NOM.PL.M taxi   yellow-NOM.PL.M taxi[NOM.PL]

    'yellow taxis'

    su   *taksi*

    with   taxi / taxi[INS.SG]

    'by taxi'

(29) Latvian

bez   *Oto*   or: *bez*   *Oto*
without Oto   without   Oto[GEN]
'without Otto'

jaun-ajā   *kino*
new-LOC.SG.DEF cinema / cinema[LOC.SG]
'in the new cinema'

3.1.6. Word-formation

Derivational suffixes in nouns are usually not glossed and not segmented unless they are the point of discussion. A possible exception is the diminutive suffix, which expresses categories difficult to translate into English.

(30) Latvian

bit-īt-e,   *alu-tiṇ-š,*   *diev-iṇ-š*
bee-DIM-NOM.SG beer-DIM-NOM.SG   god-DIM-NOM.SG
'(little) bee'   'beer' (affectionately) 'our good Lord'

For articles discussing word-formation, more labels for individual nominal derivational suffixes may be introduced, for example:

ACN action noun (Latvian *-šan,* Lithuanian *-im/-ym*)
AGN agent noun (Latvian *-ēj, -tāj,* Lithuanian *-ėj, -toj*)

Compounds may be optionally segmented:

(31) Latvian

diev-nam-s   or: *dievnam-s*
God-house-NOM.SG   church-NOM.SG
'church'

rīg-tiec-e
Riga-striving-NOM.SG
'tendency/urge to move to Riga'

(32) Lithuanian

duon-milči-ai   or: *duonmilči-ai*
bread-flour-NOM.PL   bread.flour-NOM.PL
'bread flour'

When the first element of a compound contains inflectional morphemes, these may be ignored or glossed as usual.

(33) Latvian

ūdens-vīr-s   or: *ūden-s-vīr-s*

water-man-NOM.SG   water-GEN.SG-man-NOM.SG

'Aquarius'

lemt-ne-spēj-a   or: *lem-t-ne-spēj-a*

decide-NEG-ability-NOM.SG   decide-INF-NEG-ability-NOM.SG

'inability to decide'

3.2. Adjectives and deadjectival adverbs

Adjectives are glossed for case, number, and gender. It is possible to omit gender specification from endings in those cases where the masculine and the feminine forms are identical, for example the genitive plural or the accusative singular.

(34) Lithuanian

a. *ger-as*   *stal-as,*   *ger-a*   *kėd-ė*

good-NOM.SG.M table-NOM.SG good-NOM.SG.F chair-NOM.SG

b. *ger-ą*   *stal-ą,*   *ger-ą*   *kėd-ę*

good-ACC.SG table-ACC.SG good-ACC.SG chair-ACC.SG

c. *ger-ų*   *stal-ų,*   *ger-ų*   *kėdži-ų*

good-GEN.PL table-GEN.PL good-GEN.PL chair-GEN.PL

'good table' 'good chair'

(35) Latvian

a. *stipr-i*   *ozol-i*   *un*   *skaist-as*

strong-NOM.PL.M oak-NOM.PL and fine-NOM.PL.F

liep-as

linden-NOM.PL

'strong oaks and beautiful lindens'

b. *stipr-u*   *ozol-u*   *un*   *skaist-u*   *liep-u*

strong-GEN.PL oak-GEN.PL and fine-GEN.PL linden-GEN.PL

stādījum-s

plantation-NOM.SG

'a plantation of strong oaks and fine lindens'

The definite endings are glossed as such with the additional label DEF. Non-definite forms of adjectives are not glossed as "indefinite", except for situations where this is the point of discussion, for example, when

contrasting these endings as in example (38) below. The element expressing definiteness is usually not segmented and the glosses for the definite ending are arranged in the order case—number—gender—definiteness.

(36) Lithuanian
    a. *žali-a*   *žol-ė*
        green-NOM.SG.F grass-NOM.SG
        'green grass'
    b. *žali-oji*   *arbat-a*
        green-NOM.SG.F.DEF tea-NOM.SG
        'green tea'

(37) Latvian
    a. *sald-s*   *dzērien-s*
        sweet-NOM.SG.M drink-NOM.SG
        'a sweet drink'
    b. *sald-ais*   *ēdien-s*
        sweet-NOM.SG.M.DEF dish-NOM.SG
        'dessert'

If an author wishes to segment the definiteness marker (where this is possible), the order of the glosses changes, as the definiteness marker comes before the inflectional ending.

(38) Latvian
    Reiz bij-a   **jaun-s**   *puis-is.*
    once be.PST-3 young-NOM.SG.M.IDEF fellow-NOM.SG
    Jaun-aj-am   *puis-im*   *bija*
    young-DEF-DAT.SG.M fellow-DAT.SG be.PST.3
    gudr-s   *kaķ-is.*
    clever-NOM.SG.M.IDEF cat-NOM.SG
    'Once there was **a young** lad. **The young** lad had a clever cat.'

Lithuanian forms of adjectives and participles traditionally called "neuter" are glossed with NA for "non-agreeing" (or "neutral"). The Latvian equivalent of these forms in many contexts is the adverb formed with the suffix *-i.*

(39) Lithuanian   Latvian
    puik-u   *brīniškīg-i*
    splendid-NA   splendid-ADV
    'it is splendid'   'it is splendid'

Adverbial forms of adjectives (or: deadjectival adverbs), formed in Lithuanian by the suffix -*(i)ai* and in Latvian by the suffix -*i* or -*u*, can be either segmented and glossed as such or merely translated. Authors should be consistent in their choice of technique.

(40) Lithuanian
ger-ai   or: *gerai*
good-ADV   well
'well'

(41) Latvian
skaidr-i   or: *skaidri*
clear-ADV   clearly
'clearly'

Similarly, the negative prefix with adjectives and adverbs can either be segmented and glossed (42a), (43a) or the whole word may be translated by a semantically appropriate English word (42b), (43b). Glossing *ne-* as "not" or "un-" is not recommended.

(42) Lithuanian
a. *ne-kalt-a*   *ne-paprast-ai*
   NEG-guilty-NOM.SG.F   NEG-usual-ADV
b. *nekalt-a*   *nepaprast-ai*
   innocent-NOM.SG.F   unusual-ADV
   'innocent'   'unusually'

(43) Latvian
a. *ne-vainīg-s*   b. *nevainīg-s*
   NEG-guilty-NOM.SG.M   innocent-NOM.SG.M
   'innocent'

Comparative and superlative degrees of adjectives are expressed by dedicated suffixes in Lithuanian and their segmentation and glossing is unproblematic (note that the *i* indicating palatalization of the stem-final consonant in superlative forms goes before the hyphen). However, if adjectival degree is not of primary importance, these features may be left unsegmented and unglossed if the stem is appropriately translated:

(44) Lithuanian
a. *ger-esn-is*   or: *geresn-is*
   good-COMP-NOM.SG.M   better-NOM.SG.M
   'better'

b. *geri-ausi-as*   or: *geriausi-as*
   good-super-NOM.SG.M   best-NOM.SG.M
   'best'

In Latvian, comparative forms of adjectives with the definite ending may have superlative meaning. This meaning does not appear in the glosses.

(45) Latvian
   a. *ar   liel-āk-u   priek-u*
      with great-COMP-ACC.SG joy-ACC.SG
      'with greater joy'
   b. *ar   liel-āk-o   priek-u*
      with great-COMP-ACC.SG.DEF joy-ACC.SG
      'with the greater joy' or 'with the greatest joy'

The prefix *vis-* makes the superlative meaning explicit. It may be glossed either as 'all' or as SUPER.

   c. *ar   vis-liel-āk-o   priek-u*
      with   all-great-COMP-ACC.SG.DEF joy-ACC.SG
      or: SUPER-great-COMP-ACC.SG.DEF
      'with the greatest joy'

(46) Adverbs:
   lab-i,   lab-āk,   vis-lab-āk,   or: labāk, vislabāk
   good-ADV good-COMP all-good-COMP   better best
                     or: SUPER-good-COMP
   'well'   'better'   'best'

3.3. Numerals

Numerals are glossed with their translation equivalents and for the morphological categories that are overtly expressed. Most declinable numerals behave morphosyntactically either like adjectives or like nouns and are glossed accordingly. Note that Lithuanian *vienas* 'one' and Latvian *viens* 'one' behave as normal adjectives inflecting for case, gender, and number (though not definiteness), therefore the information 'singular' is not redundant. Most cardinal numerals do not inflect for number; for the sake of uniformity the information 'plural' may be added in the ending (optional).

(47) Latvian

    a. *div-us*   *zirg-us*   or: *div-us*   *zirg-us*

      two-ACC.M horse-ACC.PL   two-ACC.PL.M horse-ACC.PL

      'two horses'

    b. *div-i*   *tūkstoš-i*   *eiro*

      two-NOM.M   thousand-NOM.PL euro

      'two thousand euro'

    c. *tūkstoš*   *un*   *vien-a*   *nakt-s*

      thousand and one-NOM.SG.F night-NOM.SG

      'thousand and one nights' (here *tūkstoš* 'thousand' is inde-clinable)

(48) Lithuanian

    du   TWO.NOM.M / TWO.NOM.PL.M (or accusative)

    dvi   TWO.NOM.F / TWO.NOM.PL.F   (or accusative)

    dviej-ų TWO-GEN / TWO-GEN.PL

    dv-iem TWO-DAT / TWO-DAT.PL

    tr-ys   three-NOM / three-NOM.PL

    tr-is   three-ACC / three-ACC.PL

    trij-ų   three-GEN / three-GEN.PL

Special "collective" numerals used in Lithuanian (occasionally also in Latvian) with *pluralia tantum* can be glossed like regular cardinals (49a), but explicit glossing is also possible (49b):

(49) Lithuanian

    a. *vieneri-os / trej-os*   *dur-ys*

      one-NOM(.PL).F / three-NOM(.PL).F door-NOM.PL

    b. *vien-eri-os / trej-os*   *dur-ys*

      one-COLL-NOM(.PL).F / three.COLL-NOM(.PL).F door-NOM.PL

      'one/three doors'

Ordinal numerals are translated, unless it is necessary to show their derivation (which in many cases is anyway fairly opaque, hence not seg-menting them is preferable). In Latvian they inflect as definite adjectives. One may consider ordinal numerals as inherently definite and treat this category as discussed above for the category number in *pluralia tantum* (50c).

(50) Latvian

    a. *ceturt-ā*   *nodaļ-a*
       fourth-NOM.SG.F.DEF   chapter-NOM.SG
       'Chapter 4'

    b. *desmit-ais*   *bausl-is*
       tenth-NOM.SG.M.DEF   commandment-NOM.SG
       'the tenth commandment'

    c. *desmit-ais*   /   *desmit-ais*
       tenth(DEF)-NOM.SG.M   tenth(DEF)-NOM.SG.M.DEF

3.4. Pronouns

Pronouns may be translated by a label such as 1PL, DEM, REL or by an English equivalent such as 'we', 'this', 'which'. For any pronoun, authors should be consistent in their choice of translation.

    For first and second person pronouns the use of labels is recommended. Suggested segmentations (optional) are given in Table 1.

Table 1. Glossing of 1st and 2nd person pronouns

Lithuanian	Latvian	gloss		Lithuanian	Latvian	gloss
aš	*es*	1SG.NOM		*tu*	*tu*	2SG.NOM
man	*man*	1SG.DAT		*tau*	*tev*	2SG.DAT
man-ęs	*man-is*	1SG-GEN		*tav-ęs*	*tev-is*	2SG-GEN
man-e	*man-i*	1SG-ACC		*tav-e*	*tev-i*	2SG-ACC
mes	*mēs*	1PL.NOM		*jus*	*jūs*	2PL.NOM
mums	*mums*	1PL.DAT		*jums*	*jums*	2PL.DAT
mus	*mūs*	1PL.ACC		*jus*	*jūs*	2PL.ACC
mūs-ų	*mūs-u*	1PL-GEN		*jūs-ų*	*jūs-u*	1PL-GEN
mumis	-	1PL.INS		*jumis*	-	2PL.INS

    Lithuanian dual pronouns can be either glossed as "dual" (51a) or segmented into the pronominal stem and the numeral "two" (51b):

(51) Lithuanian
    a. *mudvi*   b.   *mu-dvi*
      1DU.NOM.F   1PL-TWO.NOM.F
      'we two (feminine)'

Possessive pronouns are glossed as 1SG.POSS (or 'my') and 2SG.POSS (or 'your'). The reflexive possessive pronoun (Latvian *savs*, Lithuanian *savo*) is glossed as RPOSS, alternatively translated as 'own'. In the Latvian possessive pronouns, stem and ending can be segmented and the categories expressed in the ending glossed accordingly, while the Lithuanian possessive pronouns *mano, tavo, savo* are indeclinable and should preferably be not segmented. Those scholars who believe that these forms are case forms and belong to the respective pronominal paradigms, should be careful not to use for them the label GEN, which is reserved for forms like *manęs*.

The reflexive pronoun Latvian *sevis*, Lithuanian *savęs* can be translated as 'self', though the label RFL is considered more appropriate. The pronoun Lithuanian, Latvian *pats* is labeled EMPH for 'emphatic pronoun'. Another possible glossing is by 'self'; however, authors should not use the same label for *sevis/savęs* and for *pats*, so if 'self' is chosen as a gloss of *pats*, *sevis/savęs* should be glossed as RFL.

We recommend the use of labels and not translations for third person pronouns, demonstrative and interrogative pronouns. Note that English marks the gender and number in third person pronouns and number in demonstrative pronouns in the stem (*he* vs. *she*, *he* vs. *they*, *this* vs. *these*), while the Baltic languages mark these categories consistently in the ending. The use of English translation equivalents therefore often raises problems which can be avoided by using labels. If authors wish to use English translation equivalents, the Lithuanian/Latvian wordform is not segmented, for example Latvian *viņa* 'she.NOM', *viņi* 'they.NOM' (not *viņ-a* 'she-NOM', *viņ-i* 'they-NOM'), for the endings *-a* and *-i* include information about number and gender, while the stem *viņ-* alone is not translatable by 'he', 'she', or 'they'.

The use of the two Baltic demonstrative pronouns only partly overlaps with the distinction between English *this* and *that*, and a translation by these pronouns is often misleading. If authors wish to give a more specific gloss than DEM, Baltic *šis* may be glossed by PROX and Baltic *tas* by DIST. Another problem arises in the case of Baltic *kas*, which covers both

English 'who' and 'what'. As the translation 'who/what' is a bit clumsy, it may be glossed as 'what' or 'who', according to the reading suggested by the context. Alternatively, it may be labeled according to its function in a given context: interrogative (INT), indefinite (IDEF), or relative (REL). Note that *kas* inflects only for case and is not specified for number, which should not be included into the gloss.

In table 2 we give examples of recommended glossing. For the demonstratives and the pronoun *kas*, the table includes only one of the mentioned variants. The segmentation into stem and ending is not obligatory.

Table 2. Glossing of other pronouns

Lithuanian	Latvian	gloss	translation
j-is	*viṇ-š*	3-NOM.SG.M	'he'
j-ai	*viṇ-ai*	3-DAT.SG.F	'her'
j-ie	*viṇ-i*	3-NOM.PL.M	'they (masculine)'
t-as	*t-as*	DEM-NOM.SG.M	'that'
t-oms	*t-ām*	DEM-DAT.PL.F	'(to) those (feminine)'
š-is	*š-is*	DEM-NOM.SG.M	'this'
ši-uos	*š-os*	DEM-ACC.PL.M	'these'
k-as	*k-as*	INT-NOM	'who/what'
k-ą	*k-o*	who-ACC/what-ACC	'who/what'

For indefinite, negative, and relative pronouns a translation is often better and easier to understand than a label. Indefinite pronouns consisting of an interrogative/relative pronoun or adverb and a marker of indefiniteness may be glossed in two ways:

(52) Lithuanian
    a. *kažk-as*   or   *kaž-k-as*
        somebody-NOM   IDEF-who-NOM
        'somebody'
    b. *kur nors*   or   *kur*   *nors*
        anywhere   where   IDEF
        'anywhere'

    c. *bet kada*   or   *bet   kada*
      at.any.time   IDEF when
      'at any time'

(53) Latvian

    a. *kaut kas*   or   *kaut kas*
      IDEF what.NOM   something
      'something'

    b. *kaut kur*   or   *kaut kur*
      IDEF where   somewhere
      'somewhere'

Negative pronouns like Lithuanian *niekas* or *joks,* Latvian *nekas, neviens* should be either translated as 'nobody/nothing' and 'none', respectively, or glossed as NEG.IDEF.

We suggest using translations, not labels for words meaning 'all' (Latvian *viss, visi*), 'each', 'anyone' (Latvian *jebkurš, ikkatrs, katrs*). An English translation is also appropriate for the Latvian multifunctional pronoun *kurš*:

(54) Latvian

    a. ***Kur-š***   *bū-s*   *nākam-ais?*
      which-NOM.SG.M be-FUT.3 next-NOM.SG.M.DEF
      'Who will be next?' (interrogative pronoun)

    b. *t-as,*   ***kur-š***   *bū-s*   *nākam-ais*
      DEM-NOM.SG.M which-NOM.SG.M be-FUT.3 next-NOM.SG.M.DEF
      'the one who will be next' (relative pronoun)

4. Verbs

4.1. General remarks

Verbs have the most elaborated and complex morphology in both Baltic languages, so their proper glossing is both essential and non-trivial. Since there are important differences between Lithuanian and Latvian especially regarding simple (non-periphrastic) forms, these are discussed separately and sometimes the glossing solutions we propose for the two languages differ. Common to both Baltic languages is the general feature that all finite 3rd person forms do not distinguish number, so number should not be indicated in the 3rd person.

The infinitives are easily segmentable in both languages:

(55) Latvian   Lithuanian
    a. *rakstī-t*   b. *skaity-ti*
       write-INF   write-INF
       'to write'

The supine, which is found in some Lithuanian dialects as well as in Latgalian, is glossed by SUP.

(55) Latgalian
    c. *maklā-tu*
       search-SUP
       'to search'

Negation is expressed by the negative prefix *ne-* in both languages:

(56) Latvian   Lithuanian
    ne-strādā   *ne-raš-o*
    NEG-work.PRS.3   NEG-write-PRS.3
    'does not work'   'does not write'

The verb Latvian *būt,* Lithuanian *būti* may be glossed as 'be' in all its functions according to the principle of priority of form. Alternatively, the labels COP and AUX may be used when this verb functions as a copula or auxiliary, respectively.

(57) Latvian
    a. *es*   *esmu*   *te*
       1SG.NOM   be.PRS.1SG   here
       'I am here'
    b. *es*   *esmu*   *valodniece*
       1SG.NOM   be.PRS.1SG   linguist(F).NOM.SG
              or: COP.PRS.1SG
       'I am a linguist'
    c. *es*   *esmu*   *redzējusi*
       1SG.NOM   be.PRS.1SG   see.PA.PST.NOM.SG.F
            or: AUX.PRS.1SG
       'I have seen'
(58) Lithuanian
    a. *buvau*   *Vilniuje*
       be.PST.1SG   Vilnius.LOC.SG
       'I was in Vilnius'

b. *buvau   viena*
   be.PST.1SG one.NOM.SG.F
or: COP.PST.1SG
   'I was alone'

c. *buvau   išėjusi*
   be.PST.1SG go.out.PST.PA.NOM.SG.F
or: AUX.PST.1SG
   'I had gone'

4.2. Finite verbs (simple forms): Lithuanian

4.2.1. Basic forms

Lithuanian verbs usually contain more segmentable inflectional morphemes than just stem and ending, and some derivational affixes (like preverbs, the reflexive marker, and the iterative suffix *-(d)inė-*) can also be (and sometimes preferably should be) segmented. Below a couple of attested polymorphemic verbal forms are given with full glossing:

(59) *už-si-raš-inė-si-te*
     PVB-RFL-write-ITER-FUT-2PL
     'you will be recording' (LKT)

(60) *ne-be-su-si-skamb-in-dav-o-me*
     NEG-CNT-PVB-RFL-resound-CAUS-HAB-PST-1PL
     'we no longer used to call each other by phone' (LKT)

Full segmentation and glossing of non-inflectional morphemes is not always necessary; however, inflectional properties of verbs, including those expressed by non-derivational ("external") prefixes (Arkadiev 2010, 2011), have to be explicitly glossed.

In the simplest and most general case, a Lithuanian finite verbal form consists of a stem, a tense/mood suffix and an ending expressing person and number (61a). In some cases, i.e. in the 1SG and 2SG of Present and Past tenses and the Subjunctive (Irrealis) mood, the tense-mood affix coalesces with the personal ending (61b); in the third person, the personal ending is technically null, but for the sake of clarity and economy we recommend glossing these endings as cumulatively encoding tense/mood and person (61c).

(61) a. *bėg-a-me*   *bėg-o-me*   *bėg-si-me*   *bėg-tumė-me*
       run-PRS-1PL   run-PST-1PL   run-FUT-1PL   run-IRR-1PL
       'we run'   'we ran'   'we will run' 'we would run'

   b. *bėg-u*   *bėg-au*   *bėg-si-u*   *bėg-čiau*
       run-PRS.1SG   run-PST.1SG   run-FUT-1SG   run-IRR.1SG
       'I run'   'I ran'   'I will run'   'I would run'

   c. *bėg-a*   *bėg-o*   *bėg-s*   *bėg-tų*
       run-PRS.3   run-PST.3   run-FUT.3   run-IRR.3
       '(s)he/they   '(s)he/they   '(s)he/they   '(s)he/they
       run(s)'   ran'   will run'   would run'

The same holds for the Imperative with the dedicated suffix *-k(i)*, whose 2nd person singular form has a null ending:

(62) *ei-k*   *ei-ki-te*
     go-IMP.2SG   go-IMP-2PL
     'go!'

The Past Habitual forms consist of the clearly segmentable and invariable Habitual suffix *-dav-* and the regular Past suffix *-o* plus personal endings, see (60) above.

As with nouns, the palatalization of the stem-final consonant in the Past and/or Present forms of some verbs belongs to the stem and not to the ending (63a), and the same concerns the intervocalic *j*, both in those cases when it belongs to the root or the derivational suffix (63b) and in those cases when it is part of the inflectional stem as in (63c).

(63) a. *dauži-u*   *dauži-au*
        break-PRS.1SG   break-PST.1SG
        'I break'   'I broke'

   b. *vij-o*   *dalij-o*
       drive-PST.3   divide-PST.3
       's/he/they drove' 's/he/they divided'

   c. *joj-o-me*   *mylėj-o-me*
       ride-PST-1PL   love-PST-1PL
       'we rode'   'we loved'

Lithuanian verbs may have different stems in different tenses and moods. The default recommendation is to leave the specific segments forming different stems unsegmented and unglossed (64a), but other pos-

sible options, such as the use of the gloss TH "thematic formative", can also be used if necessary, e.g. (64b); in some rare cases the tense meaning can even be reasonably ascribed to the stem formative rather that to the ending, e.g. (64c).

(64) a. *gau-ti   gaun-a   gav-o*   b. *gau-na*   or *gau-n-a*
      get-INF get-PRS.3 get-PST.3   get-PRS.3   get-PRS-PRS.3
      tap-ti   tamp-a   *ta<m>p-a*
      become-INF become-PRS.3   become<PRS>-PRS.3
      kalb-a   kalbėj-o   kalbė-ti   kalb-ėj-o
      speak-PRS.3 speak-PST.3 speak-INF speak-TH-PST.3
                                 kalb-ė-ti
                                 speak-TH-INF

     c. *žin-o   žin-oj-o*
       know(PRS)-3 know-PST-3

Another issue is the complete fusion occurring in the Future tense of verbs ending in coronal stops and sibilants (65a) and in the Imperative of verbs ending in velar stops (65b). In such cases we recommend refraining from segmentation.

(65) a. *met-u   mesi-u*   not *?me-si-u*
      throw-PRS.1SG throw.FUT-1SG   throw-FUT-1SG
      grįž-au   grįši-u
      come.back-PST.1SG come.back.FUT-1SG
     b. *bėg-ti   bėk*   not *?bė-k*
      run-INF run.IMP.2SG   run-IMP.2SG

The forms of the suppletive verb 'be' are shown in (66):

(66) *es-u   es-a-me   yra   buv-o-te   bū-ti*
     be-PRS.1SG be-PRS-1PL be.PRS.3 be-PST-2PL be-INF

Special lexicalized habitual forms of the Present tense of *būti* like *būn-a* can be glossed as be.HAB-PRS.3.

4.2.2. Reflexive verbs

The reflexive marker can occur both suffixally and prefixally. We propose using the same gloss for this marker, for example RFL, and the reflexive pronoun, since they share a number of functions and are clearly formally

distinct, so confusion is not very likely. Those authors who prefer to use distinct labels for free and bound forms may, e.g., translate the reflexive pronoun as 'self'. As a suffix, the reflexive marker is clearly identifiable and should be segmented and glossed even when lexicalized, in order not to obliterate the identification of personal endings.

(67) *keli-uo-si*   *bij-o-mė-s*
     raise-PRS.1SG-RFL   fear-PRS-1PL-RFL
     'I get up'   'we fear'

As a prefix, the reflexive marker is always sandwiched between the stem and another prefix. If the latter is an inflectional one, as in (68a), both should be segmented and glossed; otherwise, segmentation and glossing are optional, especially when both the prefix and the reflexive are lexicalized, as in (68b).

(68) a. *ne-si-bij-au*
        NEG-RFL-fear-PRS.1SG
        'I do not fear'
     b. *atsisak-o-me*   or   *at-si-sak-o-me*
        refuse-PRS-1PL   PVB-RFL-say-PRS-1PL
        'we refuse'

4.2.3. Verbal inflectional prefixes

There are two types of verbal prefixes in Lithuanian—derivational ("internal") and inflectional ("external"). Derivational prefixes or preverbs have many different meanings and are often lexicalized; their segmentation is optional and a uniform gloss PVB is recommended.

There are the following inflectional prefixes in Lithuanian:

NEG   negation *ne-*
PRM   permissive/jussive *te-*
RSTR restrictive *te-*
POS   positive polarity *te-*
CNT   continuative *be-*

The prefix *te-* is so polyfunctional (and its functions can hardly be linked to each other, at least synchronically) that it is impossible to suggest a uniform gloss for its three different uses, therefore the choice of the

gloss should be made on the basis of the context (this goes against priority of form, but this principle does not imply identical glossing of homonymous morphemes, as has been said above).

(69) a. *te-kalb-a*
PRM-speak-PRS.3
'let him/her/them speak'
b. *te-kalb-a*
RSTR-speak-PRS.3
'he/she/they speak(s) only (about that)'
c. *te-be-kalb-a*
POS-CNT-speak-PRS.3
'he/she/they still speak(s)'

The prefix *be-* is also very polyfunctional, but its meanings are usually context-dependent and often hard to formulate and label, so a uniform gloss CNT (continuative, even if the actual meaning is different) is suggested.

Fused forms of inflectional prefixes and the present tense of the verb 'be' (AUX, COP) (the "+" sign indicates morphophonological fusion as distinct from cumulative exponence):

(70) *nes-u*   *nėra*   *tėra*
NEG + be-PRS.1SG NEG + be.PRS.3 RSTR + be.PRS.3
te-bėra
POS-CNT + be.PRS.3

4.3. Finite verbs (simple forms): Latvian

4.3.1. Indicative forms

The segmentation of Latvian verbal forms is less straightforward than that of Latvian nouns. Compare the following set of present and past tense forms of the verb *pirkt* 'buy' (to show vowel alternation in the present tense, the notation deviates from standard orthography, where both /æ:/ and /ɛ:/ are written as <ē>).

(71) a. *pæ:rku*   *pæ:rk*   *pērc*   *pæ:rkam*
buy.PRS.1SG   buy.PRS.3   buy.PRS.2SG   buy.PRS.1PL
'I buy'   '(x) buy(s)' 'you (SG) buy' 'we buy'

b. *pirku*   *pirka*   *pirki*   *pirkām*
buy.PST.1SG buy.PST.3   buy.PST.2SG   buy.PST.1PL
'I bought'   '(x) bought' 'you (SG) bought' 'we bought'

While each form in this set unambiguously signals tense and person, there is no easy answer to the question of which part of the form contains which information. Consequently, scholars disagree about the best way of segmenting these forms and ascribing meanings to each segment. The author of this section (Nicole Nau) holds that there is no segment that could be glossed as 'past' or 'present'. Instead, this information is either expressed by the choice of a stem (as in the 1SG forms *pæ:rk-u* vs. *pirk-u*) or the combination of a particular stem and ending (as in 2SG *pērc* [zero ending] vs. *pirk-i*). The solution favored by this author therefore is to refrain from segmenting present and past tense forms of verbs, or to segment only the personal ending and ascribe the tense meaning to the stem. Personal endings are then assumed to have the following allomorphs: 1SG *-u*, 2SG *-i* or zero, 3 *-a* or zero, 1PL *-am* or *-ām*, 2PL *-at* or *-āt* (for an alternative see below), which leads, for example, to the following possible segmentations:

(72) *pæ:rk-u*   *pirk-a*   *pæ:rk-am*   *pirk-ām*
      buy.PRS-1SG buy.PST-3   buy.PRS-1PL buy.PST-1PL
      'I buy'   '(x) bought' 'we buy'   'we bought'

The same analysis is applied to verbs of other types, such as *rakstīt* 'write' and *strādāt* 'work' given below. Some scholars may be inclined to identify the segment *-īj-* in the past tense forms of *rakstīt* 'write' as a marker of past tense. However, the respective thematic vowel appears in other stems as well (for example, in the infinitive and in future forms, see below) and cannot be regularly associated with past tense, while the glide is purely phonologically conditioned. In verbs of the type *strādāt* 'work' the thematic vowel is present in all stems and cannot be regarded as a tense marker.

(73) a. *rakst-u*   *rakst-a*   *rakst-i*   *rakst-ām*
      write.PRS-1SG write.PRS-3 write.PRS-2SG   write.PRS-1PL
      'I write'   '(x) write(s)' 'you (SG) write' 'we write'
   b. *rakstīj-u*   *rakstīj-a*   *rakstīj-i*   *rakstīj-ām*
      write.PST-1SG write.PST.3 write.PST-2SG   write.PST-1PL
      'I wrote'   '(x) wrote'   'you (SG) wrote' 'we wrote'

(74) a. *strādāj-u*   *strādā*   *strādā*   *strādāj-am*
work.PRS-1SG work.PRS.3 work.PRS.2SG work.PRS-1PL
'I work'   '(x) work(s)' 'you (SG) work' 'we work'

    b. *strādāj-u*   *strādāj-a*   *strādāj-i*   *strādāj-ām*
work.PST-1SG work.PST-3 work.PST-2SG work.PST-1PL
'I worked'   '(x) worked' 'you (SG) worked' 'we worked'

The benefit of this analysis, which reflects a purely synchronic view on contemporary data, is that it yields a uniform and easily applicable principle for segmentation and the result is in line with most modern descriptions of Latvian morphology (especially regarding personal endings, cf. LVG 2013, 518–520). On the other hand, it conceals similarities with Lithuanian and the common heritage, which by some scholars may be felt as a drawback. These scholars may prefer other ways of segmentation and are free to follow them, as long as the segmentation is consistent and based on a sound and coherent morphological analysis, such as the one given in Andronov (2000).[6] For example, one may hold that the personal endings of 1PL and 2PL are *-m* and *-t,* while the vowel preceding these consonants belongs to the stem; this leads to the following segmentation:

(75) a. *pæ:rk*   *pæ:rka-m*   *raksta*   *rakstā-m*
buy.PRS.3 buy.PRS-1PL write.PRS.3 write.PRS-1PL
'(x) buy(s)' 'we buy'   '(x) write(s)' 'we write'

The question of personal endings is also relevant for the segmentation of future forms. We propose that 1PL has the allomorph *-im,* 2PL has the allomorphs *-it* and *-iet,* and the future marker is *-s-* or *-š-* (the latter appearing before rounded vowels).

(76) a. *pirk-š-u*   *pirk-s*   *pirk-s-i*   *pirk-s-im*
buy-FUT-1SG buy-FUT.3 buy-FUT-2SG buy-FUT-1PL
'I will buy'   '(x) will buy' 'you (SG) will buy' 'we will buy'
rakstī-š-u   *rakstī-s*   *rakstī-s-i*   *rakstī-s-im*
write-FUT-1SG write-FUT.3 write-FUT-2SG write-FUT-1PL
'I will write' '(x) will write' 'you (SG) will write' 'we will write'

Scholars who hold that the endings for 1PL and 2PL are *-m* and *-t,*

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[6] Note that Andronov's analysis presumes underlying forms and morphophonological rules for the derivation of surface forms, which cannot be reflected in interlinear glosses following the general principles accepted here.

respectively, will assume -*s*-, -*si*- and -*š*- as allomorphs of the future morpheme and segment in the following way:

(76) b.   *pirk-š-u*   *pirk-s*   *pirk-s-i*   *pirk-si-m*
      buy-FUT-1SG buy-FUT.3   buy-FUT-2SG   buy-FUT-1PL
      'I will buy'   '(x) will buy' 'you (SG) will buy' 'we will buy'
      rakstī-š-u   *rakstī-s*   *rakstī-s-i*   *rakstī-si-m*
      write-FUT-1SG write-FUT.3 write-FUT-2SG   write-FUT-1PL
      'I will write'   '(x) will write' 'you (SG) will write' 'we will write'

4.3.2. Non-indicative forms

In Latvian only 2PL has a dedicated imperative form (according to the norms of the standard language, but not for all speakers), but for 2SG the form is the same as in the indicative. However, it will make the understanding of a Latvian sentence easier if the imperative of second person singular is glossed as such, thus assuming homonymy of 2SG imperative and indicative.

(77) a.   **nāc!**   *nāciet!*   **ēd!**   *ēdiet!*
      come.IMP.2SG come.IMP.2PL eat.IMP.2SG eat.IMP.2PL
      'come!'   'come!'   'eat!'   'eat'
   b.   *tu*   **nāc**,   *tu*   **ēd**,
      2SG.NOM come.PRS.2SG 2SG.NOM eat.PRS.2SG
      'you (SG) come'   'you (SG) eat'
      jūs   *nākat*
      2PL.NOM   come.PRS.2PL
      'you (PL) come'

There is no imperative of 1st and 3rd person in Latvian. The 1PL future form has to be glossed as such, regardless of its function:

(78) *rīt*   *iesim*   *iesim!*
    tomorrow   go.FUT.1PL   =   go.FUT.1PL
    'tomorrow we'll go'   'let's go!'

Combinations of third person present and the hortative particle *lai* are glossed as such:

(79) *lai   nāk*
    HORT   come.PRS.3
    'may they come'

The Latvian irrealis (subjunctive, conditional) has one form for all persons and is easily segmented and glossed:

(80) *es/tu/mēs   dziedā-tu*
    1SG.NOM/2SG.NOM/1PL.NOM   sing-IRR
    'I/you (SG)/we would sing'

The same holds for the debitive as well as the present and future tense forms of the evidential (see below for more forms of the evidential).

(81) a. *man/tev/mums   jā-dzied*
       1SG.DAT/2SG.DAT/1PL.DAT   DEB-sing
       'I/you (SG)/we must sing'

     b. *es/tu/mēs   dzied-ot   dziedā-š-ot*
       1SG.NOM/2SG.NOM/1PL.NOM   sing.PRS-EVD sing-FUT-EVD
       'I/you (SG)/we sing (allegedly)'   'I/you (SG)/we will sing (allegedly)'

Non-standard forms where debitive and evidential are combined in one wordform may be glossed as in (82). These forms do not seem to contain information about tense as they may be combined with a tensed auxiliary, just as the debitive form in (81a); cf. Endzelin (1922, 761–762).

(82) *jā-dzied-ot*
    DEB-sing-EVD

4.3.3. Reflexive verbs

The analysis of Latvian reflexive verbforms is again a matter of debate among scholars of this language. Andronov (2000) assumes an invariant reflexive marker *-s* which combines with special allomorphs of inflectional endings. Thus, the infinitive *celties* 'to rise' is analyzed as *cel-tie-s* 'rise-INF-RFL', where *-tie-* is an allomorph of the infinitive ending that has the form *-t-* in non-reflexive verbs (for example, *cel-t* 'raise'). An alternative favoured by many (including the present authors) and more in line with traditional descriptions is to assume two allomorphs of the reflexive

marker, *-s* and *-ies*, and segment the given infinitive as *cel-t-ies* 'rise-INF-RFL'. Following the latter approach and the considerations about tense and person markers laid out above, we arrive at the following proposal for the segmentation of finite reflexive forms.

(83) a. *ceļ-os*   *cel-ies*   *ceļ-as*   *ceļ-am-ies*
rise.PRS-1SG.RFL rise.PRS-2SG.RFL rise.PRS-3.RFL rise.PRS-1PL-RFL
'I rise'   'you (SG) rise'   '(x) rise(s)'   'we rise'

     b. *cēl-os*   *cēl-ies*   *cēl-ās*   *cēl-ām-ies*
rise.PST-1SG.RFL rise.PST-2SG.RFL rise.PST-3.RFL rise.PST-1PL-RFL
'I rose'   'you (SG) rose'   '(x) rose'   'we rose'

     c. *cel-š-os*   *cel-s-ies*   *cel-s-ies*
rise-FUT-1SG.RFL   rise-FUT-2SG.RFL   rise-FUT-3.RFL
'I will rise'   'you (SG) will rise'   '(x) will rise'
cel-s-im-ies
rise-FUT-1PL-RFL
'we will rise'

     d. *cel-tos*   *cel-ies*   *ceļ-ot-ies*   *jā-ceļas*
rise-IRR.RFL   rise-IMP.2SG.RFL rise-EVD-RFL   DEB-rise.RFL
'would rise'   'rise!'   'rise(s) (they say)' 'must rise'

We refrain from segmenting suffixes where this would create further allomorphs of personal or non-indicative endings, for example 1SG *-o* (in *-o-s* '1SG-RFL'), but this is of course possible if someone wishes to do so.

The glossing of the reflexive marker is purely formal. A verbal form with this marker does not have to carry "reflexive" meaning. The stem of reflexive verbs is glossed according to the meaning of the whole lexeme (not the meaning this stem has in isolation), for example *māci-ties* 'to learn' is glossed 'learn-INF.RFL', not 'teach-INF.RFL'.

4.4. Participles and converbs

Both Baltic languages distinguish active and passive past and present participles; in addition, Lithuanian has future participles and an active participle of habitual past. In order to both reflect the symmetry of the paradigm and to spare space, it is recommended to gloss tense in the participles as in the finite forms and to use the labels PA and PP for active and passive participles, respectively. This is not to deny that "present" and "past" may have different meaning in participles than in finite forms.

Lithuanian participles: In the Past tense, tense is fused with the participle + voice suffix, while in the Present and Future tense it is expressed separately. The paradigm is shown in table 3.

Table 3. Lithuanian participles

	Active	Passive
Present	*sak-a-nt-i* say-PRS-PA-NOM.SG.F	*sak-o-m-as* say-PRS-PP-NOM.SG.M
Simple Past	*saki-us-i* say-PST.PA-NOM.SG.F	*saky-t-as* say-PST.PP-NOM.SG.M
Habitual Past	*saky-dav-us-i* say-HAB-PST.PA-NOM.SG.F	—
Future	*saky-si-ant-i / saky-sia-nt-i* say-FUT-PA-NOM.SG.F	*saky-si-m-as* say-FUT-PP-NOM.SG.M

Special fused nominative masculine forms of active participles:

(84) *sak-ąs*   *sak-ą*   *sak-ęs*
     say-PRS.PA.NOM.SG.M say-PRS.PA.NOM.PL.M say-PST.PA.NOM.SG.M

Latvian participles: As in finite forms, no separate marker of tense is identified. The tense label may be put together with the label for the participle (separated by a dot), which reflects the traditional names "present active participle", etc. An alternative is to write the tense information under the stem, which corresponds to the treatment of tense in finite forms. Only in the case of the present passive participles will these two ways lead to different segmentation. The first way is in line with Latvian grammaticography, where the present passive participle marker is held to be *-am/-ām* (LVG 2013, 576). With the alternative segmentation, the present passive participle is analyzed as the suffix *-m*, which is parallel to Lithuanian. The paradigm is shown in table 4.

Table 4. Latvian participles

	Active	Passive
Present	*las-oš-i* read-PRS.PA-NOM.PL.M or: *las-oš-i* read.PRS-PA-NOM.PL.M	*las-ām-i* read-PRS.PP-NOM.PL.M or: *lasā-m-i* read.PRS-PP-NOM.PL.M
Past	*lasīj-uš-i* read-PST.PA-NOM.PL.M or: *lasīj-uš-i* read.PST-PA-NOM.PL.M	*lasī-t-i* read-PST.PP-NOM.PL.M or: *lasī-t-i* read.PST-PP-NOM.PL.M

Fused nominative masculine form of the past active participle:

(85) *lasīj-is*
read-PST.PA.NOM.SG.M / read.PST-PA.NOM.SG.M

Periphrastic verb-forms in both Baltic languages contain a form of the verb 'be' and the past active participle. Each part is glossed according to the rules laid out above.

(86) Latvian
a. *esmu   lasīj-us-i*
be.PRS.1SG   read-PST.PA-NOM.SG.F
'I have read'
b. *viņ-as   bū-s   pa-ēd-uš-as*
3-NOM.PL.F   be-FUT.3   PVB-eat-PST.PA-NOM.PL.F
'they will have eaten'
c. *ja mēs   bū-tu   zināj-uš-i*
if   1PL.NOM be-IRR   know-PST.PA-NOM.PL.M
'if we had known'

(87) Lithuanian
a. *es-u   skaiči-us-i*
be-PRS.1SG read-PST.PA-NOM.SG.F
'I have read'

b. *j-os   bu-s   pa-valgi-usi-os*
   3-NOM.PL.F be-FUT.3 PVB-eat-PST.PA-NOM.PL.F
   'they will have eaten'

c. *jei   mes   bū-tumė-m   žinoj-ę*
   if   1PL.NOM   be-IRR-1PL know-PST.PA.NOM.PL.M
   'if we had known'

The so-called "gerunds" in Lithuanian (*padalyviai*) are transparently non-inflecting active participles of the respective tenses and should be glossed accordingly, without recourse to special labels like "GER" or the like (unless necessitated by the discussion and fully explicated by the author):

(88) Lithuanian
sak-a-nt   saki-us   saky-dav-us saky-si-ant
say-PRS-PA say-PST.PA say-HAB-PA   say-FUT-PA

In Latvian, it is possible to gloss the indeclinable participle with the suffix *-am/-ām* as an endingless present passive participle:

(89) Latvian
*redzēju   viņ-u   **las-ām***
see.PST.1SG 3-ACC.SG.M   read-PRS.PP
'I saw him reading'

Alternatively, it is glossed as a converb (CVB).

The Latvian indeclinable participle with the suffix *-ot* is glossed as converb (CVB). It is assumed to be a homonym of the evidential, which is regarded as a finite form.

(90) Latvian
a. ***Ej-ot**   prom   no   slimnīc-as,   satikām   Igor-u.*
   go-CVB   away   from hospital-GEN.SG meet.PST.1PL Igor-ACC
   'when leaving the hospital, we met Igor.' (LVK 2013)

b. *uzkliedza, [...] lai   klient-i   **ej-ot**   prom*
   shout.PST.3   HORT customer-NOM.PL go.PRS-EVD   away
   'shouted that the customers should go away' (LVK 2013)

Other converbs in Latvian and Lithuanian contain the suffix *-dam-* followed by agreement features (gender and number). Traditional names for these forms are Latvian "partly declinable participle" (*daļēji lokāmais divdabis*) and Lithuanian "half-participle" (*pusdalyvis*).

(91) Latvian

mācī-dam-s   *mācī-dam-as*   *mācī-dam-ies*
teach-CVB-SG.M   teach-CVB-PL.F   learn-CVB-SG.M.RFL
'teaching'   'teaching'   'learning'
mācī-dam-ās
learn-CVB-PL.F.RFL
'learning'

(92) Lithuanan

saky-dam-as   *saky-dam-os*
say-CVB-SG.M   say-CVB-PL.F
'saying'   'saying'

Other non-finite forms in Lithuanian:
CVB   "echo-converb" in *-te* (*bėg-te* 'running')
DPP   debitive (passive) participle in *-tin-* (*atmin-tin-as* 'memorable')

4.5. The evidential in Latvian and Lithuanian

In Latvian, only forms containing the suffix *-ot* are glossed with EVD, but not participles which may be used in evidential function.

Latvian (all examples from LVK 2013)

(93) *Runā,*   *ka*   *vīrieš-iem*   **es-ot**   *nosliec-e*
     say.PRS.3 that man-DAT.PL be.PRS-EVD dispostion-NOM.SG
     uz   *poligāmij-u.*
     to   polygamy-ACC.SG
     'They say men **have** a disposition to polygamy.'

(94) *Runā,*   *ka*   *ziem-as*   **ne-bū-š-ot,**
     say.PRS.3 that winter-GEN.SG NEG-be-FUT-EVD
     runā,   *ka*   *vairs* *nekad.*
     say.PRS.3 that more never
     'They say there **won't** be winter, they say — never again.'

(95) *Stāst-a,*   *ka*   *viņ-a*   **es-ot**   **bij-us-i**
     tell.PRS.3 that 3-NOM.SG.F be-PRS.EVD be.PST-PA-NOM.SG.F
     gandrīz *vai* *brīnum-skaist-a.*
     almost   PTC wonder-beautiful-NOM.SG.F
     'Allegedly she **was** a woman of almost incredible beauty.'

(96) *Runāj-a,*   *ka*   *agrāk* *Merk-s*   **bijis**
     say.PST-3 that earlier Merks-NOM.SG be.PST.PA.NOM.SG.M

ķirurg-s.
surgeon-NOM.SG
'They said Merks formerly **had been** a surgeon.'

In Lithuanian there are no dedicated evidential morphemes. Evidential forms always coincide with participles and should be glossed as such:

(97) Lithuanian

J-is **gyven-ąs /** **gyven-ęs /**
3-NOM.SG.M live-PRS.PA.NOM.SG.M/ live-PST.PA.NOM.SG.M/

gyven-si-ąs / **gyven-dav-ęs** *miest-e.*
live-FUT-NOM.SG.M live-HAB-PST.PA.NOM.SG.M town-LOC.SG

'(They say) he lives / lived / will live / used to live in the town.'

4.6. Verbal derivation

4.6.1. Verbal derivational prefixes (preverbs)

Verbal derivational prefixes such as *at-, iz-, pa-* etc. are glossed as PVB (for *preverb*), but only when it is important to show that the verb contains such an element. Otherwise, and especially when the prefix changes the lexical meaning of the verb, these elements are not singled out.

When the grammatical or semantic functions of preverbs are under discussion, labels for their meanings ('delimitative', 'perfective', 'ablative'…) may be used. Example:

(98) Latvian

Usually: when needed:
mēs *pa-pļāpājām* *mēs* *pa-pļāpājām*
1PL.NOM PVB-chat.PST.1PL 1PL.NOM DLM-chat.PST.1PL
'we chatted for a while'

We do not recommend the translation of preverbs by English prepositions such as 'in', 'of', etc. (with the possible exception of verbs denoting motion and displacement), as the range of meanings of the English and Baltic elements differs widely (which is not to deny that there is some overlap).

The segmentation of preverbs is always optional. When the meaning of the prefixed verb differs considerably from the base, the prefix should not be segmented (except of course when this is the issue under discussion):

(99) Latvian

  a. *mēs   pārdev-ām   māj-u*
     1PL.NOM sell.PST-1PL house-ACC.SG
     'we sold the house'

not, or only when this issue is discussed:

  b. *mēs   pār-dev-ām   māj-u*
     1PL.NOM PVB-give.PST-1PL house-ACC.SG
     'we sold the house'

4.6.2. Verbal derivational suffixes

Derivational suffixes are segmented and glossed only if necessary or if an English translation for the whole derived stem is not available. The following labels may be used (illustrated with Lithuanian suffixes):

CAUS Causative *-(d)in-*
ITER Iterative *-(d)inė-*
SML Semelfactive *-tel(ė)-*
ATT Attenuative *-(d)uriuo-*
VRB various suffixes for forming verbs from other parts of speech

(100) Lithuanian
  staty-din-ti   žvilg-telė-ti   snyg-uriuo-ti
  build-CAUS-INF glance-SML-INF snow-ATT-INF
  'have smth. built' 'glance once' 'snow gently'

5. Indeclinable words

Underived adverbs are glossed by their English translations (such as 'tomorrow', 'here', etc.). On regular deadjectival adverbs see above in the section on adjectives. Fossilized case forms of nouns or adjectives functioning as adverbs should also be preferably glossed by translations unless their morphological composition is at issue (for example, Latvian *laukā* 'outside'). However, ideophones, which are hardly translatable into English, should be glossed IDEO (see Wälchli 2015 on the Lithuanian ideophones).

    Lithuanian and Latvian prepositions, conjunctions and complementizers in most cases have fairly close English counterparts and so should

preferably be glossed by the appropriate translations rather than by labels such as PREP, COMPL or CONJ. By contrast, discourse particles are normally very hard to translate, hence the label PTC is recommended. The interrogative particle Lithuanian *ar*, Latvian *vai* is glossed Q.

(101) Latvian

    a. ***Vai*** *tad* *tu* *t-o* *ne-zināj-i?*
       Q   PTC   2SG.NOM DEM-ACC.SG NEG-know.PST-2SG
      'Didn't you know that? (I wonder)'; in this example, *tad* may also be glossed 'then'.

    b. ***zem*** *gult-as;* *runā-t* ***par*** *dzīv-i*
      under bed-GEN.SG talk-INF about life-ACC.SG
      'under the bed'   'to talk about life'

    c. *skaist-āk-s* ***par*** *sapn-i*
      beautiful-COMP-NOM.SG.M than / PREP dream-ACC.SG
      'more beautiful than a dream'

    d. *jok-a* ***pēc***
      joke-GEN.SG for / POSTP
      'for fun'

    e. ***ja*** *tu* *zinā-tu*
      if 2SG.NOM know-IRR
      'if you knew'

    f. *zinu,* ***ka*** *ne-zinu.*
      know.PRS.1SG that NEG-know.PRS.1SG
      'I know that I don't know.'

    g. *mācos,* ***lai*** *zinā-tu.*
      learn.PRS.1SG.RFL so_that know-IRR
      'I study in order to know.'

or

    e'. ***ja*** *tu* *zinā-tu*
      CONJ 2SG.NOM know-IRR
      'if you knew'

    f'. *zinu,* ***ka*** *ne-zinu.*
      know.PRS.1SG COMPL NEG-know.PRS.1SG
      'I know that I don't know.'

g'. *mācos,*   **lai**   *zinā-tu.*
learn.PRS.1SG.RFL   COMPL   know-IRR
'I study in order to learn.'

6. Conclusions

We have justified the necessity of proposing a uniform set of glossing rules
for Baltic languages and have outlined the most general principles of these
rules as well as offered a detailed discussion of the particularities of their
application to Lithuanian and Latvian data. We are fully aware of the po-
tential lacunae and shortcomings in our exposition as well as of the fact
that not everyone will agree with all our suggestions regarding glossing of
individual cases. However, we do hope that this discussion will prove use-
ful to the more general task of bridging the gap between Baltic linguistics
and general linguistics, in particular of making the Baltic data more easily
available to the general linguistic audience, and that the rules we have
proposed will be used by the specialists on Baltic languages in their work.
We are looking forward to comments and suggestions that will help to
improve the Salos Glossing Rules and make them widely accepted.

7. Alphabetic list of labels

label	meaning	comment, example
1, 2, 3	first, second, third person	1 and 2 are combined with SG and PL without a dot: 1SG, 2PL, etc.
ACC	accusative	
ACN	action noun	
ADV	adverb	
AGN	agent noun	
ATT	attenuative	Lithuanian *-(d)urio-*
AUX	auxiliary	glossing of Latvian *būt* and Lithuanian *būti* as 'be' is rec-ommended

label	meaning	comment, example
CAUS	causative	
CNT	continuative	Lithuanian verbal prefix *be-*
COLL	collective	
COMP	comparative	
COMPL	complementizer	
CONJ	conjunction	
COP	copula	not recommended, instead, use Engish 'be'
CVB	converb	corresponds to Latvian "daļēji lokāmais" and "nelokāmais divdabis" and to Lithuanian "pusdalyvis"
DAT	dative	
DEB	debitive	Latvian verbal form with the prefix *jā-*
DEF	definite	
DEM	demonstrative pronoun	used for both *tas* and *šis*
DIM	diminutive	
DIST	distant demonstrative	possible gloss for *tas* (alternative: DEM)
DLM	delimitative	
DPP	debitive passive participle	Lithuanian verbal form with the suffix *-tin-*
DU	dual	
EMPH	emphatic pronoun	Latvian, Lithuanian *pats*
EVD	evidential	corresponds to the "oblique mood" in the Baltistic tradition

label	meaning	comment, example
F	feminine	
FUT	future	
GEN	genitive	
HAB	habitual	Lithuanian aspect category, combined with PST
HORT	hortative	
IDEF	indefinite	indefinite endings of adjectives are marked only exceptionally
IDEO	ideophone	
IMP	imperative	
ILL	illative	Lithuanian case form, normally occurs only in the singular
INF	infinitive	
INS	instrumental	
INT	interrogative (pronoun)	the interrogative particle is glossed Q
IRR	irrealis	Latvian "vēlējuma izteiksme", Lithuanian "tariamoji nuosaka"
ITER	iterative	
LOC	locative	
M	masculine	
NA	non-agreement, neutral	ending of Lithuanian adjectives traditionally called "neuter"
NEG	negation	
NML	nominalizing suffix	not if ACN, AGN or other more specific labels are needed

label	meaning	comment, example
NOM	nominative	
PA	active participle	
PFX	prefix	other than PVB, CNT, NEG, POS, RFL, RSTR
PL	plural	
PN	proper name	
POS	positive polarity	Lithuanian verbal prefix *te-* in combination with the continuative *be-*
POSS	possessive	in pronouns combined to 1SG.POSS (*mans, mano*), 2SG.POSS (*tavs, tavo*)
POSTP	postposition	
PP	passive participle	
PREP	preposition	
PRM	permissive/jussive	Lithuanian verbal prefix *te-*
PROX	proximate	possible gloss for *šis* (alternative: DEM)
PRS	present	
PST	past	
PTC	particle	
PVB	preverb	verbal derivational prefixes such as *pa-*
Q	question particle	
REL	relative pronoun	
RFL	reflexive pronoun (*save, sevis*); reflexive marker (in verbs)	
RPOSS	reflexive possessive pronoun	*savo, savs*

label	meaning	comment, example
RSTR	restrictive	Lithuanian verbal prefix *te-* meaning 'only'
SG	singular	
SML	semelfactive	Lithuanian *-tel(ė)-*
SUP	supine	
SUPER	superlative	
TH	thematic vowel	
VOC	vocative	
VRB	verbalizer	suffix deriving verbs from other parts of speech

Nicole Nau
Adam Mickiewicz University
Institute of Linguistics
al. Niepodległości 4, PL-61-874 Poznań
naunicol@amu.edu.pl
http://naunicol-e.home.amu.edu.pl

Peter M. Arkadiev
Institute of Slavic Studies
Russian Academy of Sciences
Leninskij prospect 32-A, RU-119991 Moscow
peterarkadiev@yandex.ru
http://www.inslav.ru/index.php?option=com_content&view=article&id=279

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