Stems, roots and exponents in the verbal system of Lithuanian

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Overview

1. The structure of the Lithuanian verbal paradigm
2. Major conjugation classes
3. The three stems
4. The root
5. The status of the Infinitive stem
6. Summary
7. Conclusions
### The structure of the verbal paradigm

#### Verbal paradigm:

<table>
<thead>
<tr>
<th>Tense</th>
<th>Present</th>
<th>Past</th>
<th>Habitual Past</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
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<td>+</td>
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<tr>
<td><strong>Passive</strong></td>
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<tr>
<td><strong>Indicative</strong></td>
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#### Forms:

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<thead>
<tr>
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<tr>
<td>1</td>
<td>bégu</td>
<td>béga-me</td>
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<tr>
<td>2</td>
<td>bég-i</td>
<td>bég-a-te</td>
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<tr>
<td>3</td>
<td></td>
<td>bég-a-Ø</td>
</tr>
</tbody>
</table>

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Present tense of *bégti* 'run':

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The structure of the verbal paradigm

-supti-'wrap’

<table>
<thead>
<tr>
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<th>Present</th>
<th>Past</th>
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<th>Future</th>
</tr>
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<tbody>
<tr>
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<td>sup-o-te</td>
<td>sup-dav-o-te</td>
<td>sup-si-te</td>
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<td>ActPart</td>
<td>sup-a-nt-</td>
<td>sup-us-</td>
<td>sup-dav-us-</td>
<td>sup-sla-nt-</td>
</tr>
<tr>
<td>PassPart</td>
<td>sup-a-m-as</td>
<td>sup-t-as</td>
<td>–</td>
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<td>Subjunctive</td>
<td>sup-dam-as</td>
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<td>Infinitive</td>
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<td>Verbal Noun</td>
<td>sup-im-as</td>
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<td>DebPart</td>
<td>sup-tin-as</td>
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</tbody>
</table>
Overview

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Major conjugation classes

Two main parameters of classification:
- the choice of the marker of the present tense;
- the presence of a syllabic “thematic” suffix in the Infinitive and/or Past tenses.
+ Various subtypes
## Major conjugation classes

### 1. Three types of the Present

<table>
<thead>
<tr>
<th></th>
<th>a-stem</th>
<th>i-stem</th>
<th>o-stem</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>supti ‘wrap’</td>
<td>mylęti ‘love’</td>
<td>rodyti ‘show’</td>
</tr>
<tr>
<td>3</td>
<td>sup-a</td>
<td>myl-i</td>
<td>rod-o</td>
</tr>
<tr>
<td>1Sg</td>
<td>sup-ų</td>
<td>myl-į-u</td>
<td>rod-a-u</td>
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</tr>
</tbody>
</table>

For example:
- supti 'wrap'
- mylęti 'love'
- rodyti 'show'
2. Three types of stem-formation

- “Primary” (homosyllabic) verbs: no “thematic vowels”

‘wrap’: Inf *sup-ti*, Prs *sup-a*, Pst *sup-o*

Only verbs with *a*-stem Present tense.
Major conjugation classes

2. Three types of stem-formation

- “Mixed” (heterosyllabic) verbs: “thematic vowels” in some of the stems

‘sing’: Inf *gied-o-ti*, Prs *gied-a*, Pst *gied-o-jo*

‘love’: Inf *myl-é-ti*, Prs *myl-i*, Pst *myl-é-jo*

‘show’: Inf *rod-y-ti*, Prs *rod-o*, Pst *rod-é*

‘search’: Inf: *iešk-o-ti*, Prs *iešk-o*, Pst *iešk-o-jo*
Major conjugation classes

2. Three types of stem-formation

“Derived” verbs with syllabic derivational suffixes

‘be white’: Inf $balt\text{-}e\text{-}ti$, Prs $balt\text{-}e\text{-}ja$, Pst $balt\text{-}e\text{-}jo$

‘whitewash’: Inf $bal\text{-}i\text{n}\text{-}ti$, Prs $bal\text{-}i\text{n}\text{-}a$, Pst $bal\text{-}i\text{n}\text{-}o$

‘serve’: Inf $tarn\text{-}au\text{-}ti$, Prs $tarn\text{-}au\text{-}ja$, Pst $tarn\text{-}av\text{-}o$

‘divide’: Inf $dal\text{-}y\text{-}ti$, Prs $dal\text{-}ij\text{-}a$, Pst $dal\text{-}ij\text{-}o$

Again, only verbs with a-stem Present tense.
Major conjugation classes

3. Subtypes of ‘primary’ verbs

‘drag’: Inf *vilk-ti*, Prs *velk-a*, Pst *vilk-o* (ablaut)

‘burn’: *deg-ti, deg-a, deg[g’]-é* (palatalization)

‘let’: *leis-ti, leidži-a, leid-o* (palatalization)

‘steal’: *vog-ti, vagi [g’]-a, vog-é* (vowel shortening)

‘defend’: *gín-ti, gín-a, gy [i:]n-é* (vowel lengthening)

‘fall asleep’: *mig-ti, mi-n-g-a, mig-o* (infixation)

‘faint’: *alp-ti, alp-st-a, alp-o* (suffixation)
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The three stems

The Lithuanian verbal system is organized around three “principal parts” or stems, which are sufficient to predict the shape of all other cells of the paradigm:

Infinitive, Present, (Simple) Past

Once these forms are specified, all others can be derived by rather straightforward rules.

The three stems have different ‘stem spaces’ (Bonami & Boyé 2002).
The three stems

The distribution of forms across stems (Prs, Pst, Inf)

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The three stems

The three stems of Lithuanian verb are “morphomic” (in the sense of Aronoff 1994) to different degrees:

The **Present** stem is not morphomic at all;
The **Past** stem is slightly morphomic;
The **Infinitive** stem is purely morphomic.
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The root

Besides the three stems, a Lithuanian verb also has a root, which is the base for stem-formation as well as derivation. The shape of the root can be determined on the basis of the consideration of all the three stems. With different verbs, the root coincides with different stems or does not coincide with any of them at all.
The root

Different patterns of root-stem relation:

‘complain’: \[sku[u:]s-ti, skundži-a, skund[d’]-ė: \sqrt{skund-}\]

‘go’: \[eį-ti, eĭn-a, e[e:]j-o: \sqrt{eį-}\]

‘throw’: \[mes-ti, met-a, met[t’]-ė: \sqrt{met-}\]

‘fly’: \[skris-ti, skrend-a, skrid-o: \sqrt{skrid-}\]

‘be’: \[bū-ti, 1Pl es-a-me, buv-o: \sqrt{buv-}\]

‘tread down’: \[min-ti, min-a, my[i:]n’-ė: \sqrt{min-}\]

‘grow’: \[aug-ti, aug-a, aug-o: \sqrt{aug-}\]
The root

How are the stems formed?

Present and Past: Root + necessary morpho(phono)logical operations, e.g. infixation, palatalization, ablaut, lengthening, etc.

Then, the relevant desinences are suffixed.

With the Infinitive, it is different.
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The status of the Infinitive stem

The Infinitive = Root + -\textit{ti} + (automatic) morphophonological operations, i.e. dissimilation of coronal stops (‘let’ \( \sqrt{\text{leid}} + \text{ti} \rightarrow \text{leisti} \)), SK-metathesis (‘knot’ \( \sqrt{\text{mezg}} + \text{ti} \rightarrow \text{megzti} \)), elimination of \( n \) before \( s + \) compensatory vowel lengthening (‘send’ \( \sqrt{\text{siunt}} + \text{ti} \rightarrow \text{si[u:]sti} \)).
The status of the Infinitive stem

The Infinitive stem is a “back-formation” derived from the Infinitive via truncation of the Infinitive suffix -ти.

The most robust evidence for this view comes from vowel length and stress.
The status of the Infinitive stem

Non-final /a/ and /æ/ (graph. e) in Lithuanian are normally lengthened when stressed:

‘I carry’: /n’æʃ-ú/ vs. ‘s/he carries’: /n’æːš-a/
‘you can’: /gal’-í/ vs. ‘s/he can’: /gãːl’-i/

There are several morphologically conditioned exceptions to this rule, among them the Infinitive:

‘to carry’: /n’æʃ-t’i/, ‘to become’: /táp-t’i/
The status of the Infinitive stem

The forms based on the Infinitive stem inherit the short stressed /a/, /æ/: 

Fut2Pl: /n’ǽš’-i-t’æ/, /tá̯p-s’i-t’æ/ 
Imp2Pl: /n’ǽš-ki-t’æ/, /tá̯p-k’i-t’æ/ 

vs. Pst2Pl: /n’æ̃:š’-e:-t’æ/, /tãː:p-o:-t’æ/
The status of the Infinitive stem

In the 1Sg and 2Sg of the Present and Past tense subparadigms, stress shifts to the desinence from short syllables and long syllables with the ‘circumflex’ accent:

‘have’: 1Pl /túr’-i-m’æ/ vs. 1Sg /tur’-ú/
‘faint’: 3Prs /gvaïb-st-a/ vs. 2Sg /gvaib-st-í/ 3Pst /gvaïb-o/ vs. 2Sg /gvaib-a-ũ/

NB: stress shift is not blocked by overt suffixes such as Present -st or Past -o (> -a).
The status of the Infinitive stem

In the forms built on the Infinitive stem, notably in the Future, stress never shifts to the desinence even when all phonological conditions for the shift are satisfied:

‘I’ll faint’ /gvaɪb-s’-u/, ‘I’ll become’ /táp-s’-u/

The generalization is that all forms based on the Infinitive retain its stress, which is ‘frozen’.
The status of the Infinitive stem

Prs1Sg /n’æš-ú/ ‘carry’
Pst1Sg /n’æš’a-ũ/  
Inf /n’æš-t’i/
Fut1Sg /n’æš’-u/
HabPst1Sg /n’æš-dav-a-u/
Sbj2Sg /n’æš-tum/
DebPrt /n’æš-tin-as/
Converb /n’æš-dam-as/
The status of the Infinitive stem

- Forms based on the Infinitive stem inherit its phonological and prosodic characteristics, which seem to become ‘frozen’ in a peculiar way.

- This is not expected under the assumption that the status of the Infinitive stem in the paradigm is the same as that of the other two stems (crucially, while the formation of the Present and Past stems occurs before stress assignment, the Infinitive stem is rather formed after it).
The status of the Infinitive stem

What about the Past Passive Participle?
Superficially, PPP is very similar to Inf:

<table>
<thead>
<tr>
<th></th>
<th>Inf</th>
<th>PPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>'steal'</td>
<td>vogti</td>
<td>vogtas</td>
</tr>
<tr>
<td>'talk'</td>
<td>kalbêti</td>
<td>kalbêtas</td>
</tr>
<tr>
<td>'show'</td>
<td>rodyti</td>
<td>rodytas</td>
</tr>
<tr>
<td>'call'</td>
<td>vadinti</td>
<td>vadintas</td>
</tr>
</tbody>
</table>
The status of the Infinitive stem

However, stressed /a/ and /æ/ are lengthened in PPP, and its stress is mobile rather than fixed (at least with primary verbs):

‘carry’: Inf /n’aɛ̃-t’i/ vs. PPP /n’aɛ̃:š-t-as/

‘pick’: Inf /r’ak-t’i/ vs. PPP /r’a:k-t-as/

‘finish’: Inf /pa-baɪɡ-ti/ vs. PPP:
NomSgMasc /pá-baɪɡ-t-as/, NomSgFem /pa-baɪɡ-t-á/
The status of the Infinitive stem

- The Past Passive Participle is based directly on the root, not on the Infinitive stem.
- The formal similarities of PPP and Inf follow from the fact that their suffixes (-ti and -t) contain the same consonant and therefore trigger identical morphological rules.
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Summary: A refined inheritance tree of the Lithuanian verbal paradigm

- Root
  - Past
    - Passive Participle
  - Infinitive
    - Infinitive stem
  - Present Stem
    - Present Finite Forms
    - Present Particles
  - Past Stem
    - Past Finite Forms
    - Past Active Participle
    - Verbal Noun

- Imperative
- Subjunctive
- Past Habitual
- Debitive Participle
- Converb
Summary: A refined inheritance tree of the Lithuanian verbal paradigm

Root

- Past Passive Participle
- Infinitive
- Present Stem
- Past Stem

Infinitive stem

Imperative
- Subjunctive
- Past Habitual
Debitive Participle
Converb

Present Finite Forms

Past Finite Forms
- Past Active Participle
- Verbal Noun

Past Active Participle

Past Habitual

Subjunctive

Imperative

Passive Participle

Past

Infinitive
Summary: A refined inheritance tree of the Lithuanian verbal paradigm

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Summary: A refined inheritance tree of the Lithuanian verbal paradigm

Root

- Past Passive Participle
- Infinitive
- Present Stem
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Infinitive stem

- Imperative
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- Converb

Present Finite Forms

Past Active Participle

Verbal Noun
Summary: A refined inheritance tree of the Lithuanian verbal paradigm

- **Root**
  - **Past Stem**
  - **Present Stem**
  - **Infinitive**
    - **Past Passive Participle**
    - **Infinitive stem**
  - **Present Finite Forms**
  - **Past Active Participle**
  - **Verbal Noun**

- **Imperative**
  - **Subjunctive**
  - **Past Habitual**

- **Debitive Participle**
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**Finite Forms**

**Past finite forms**

**Past Habitual**

**Past Active Participle**

**Verbal Noun**
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Conclusions

The complex verbal system of Lithuanian presents evidence that

► The notion of ‘morphome’ can be gradual: the ‘stem spaces’ of different stems can be more or less morphosyntactically (non)consistent.
Conclusions

The complex verbal system of Lithuanian presents evidence that

▸ Different stems of a lexeme are not necessarily situated at the same ‘level’ in the hierarchical structure of the paradigm (i.e. they need not be ‘sisters’ in the ‘inheritance tree’ representation of the paradigm).
Conclusions

The complex verbal system of Lithuanian presents evidence that

► While ‘terminal nodes’ of the inheritance tree (i.e. fully inflected wordforms) are normally based on (or derived from) stems, stems can also be derived from full wordforms.
References


References


Thank you!
Danke schön!
Köszönöm szépen!
Labai ačiū!