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**Stems, roots and
exponents
in the verbal system of
Lithuanian**

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

Indicative				
	Present	Past	Habitual Past	Future
Finite	+	+	+	+
Active Participles	+	+	+	+
Passive Participles	+	+	–	+

Imperative	Infinitive
Subjunctive	Converb
	Debitive participle
	Verbal noun

Present tense of *bégti* 'run':

	Sg	Pl
1	<i>bég-u</i>	<i>bég-a-me</i>
2	<i>bég-i</i>	<i>bég-a-te</i>
3	<i>bég-a-∅</i>	

The structure of the verbal paradigm

supti`wrap`

	Present	Past	Habitual Past	Future
2PI	<i>sup-a-te</i>	<i>sup-o-te</i>	<i>sup-dav-o-te</i>	<i>sup-si-te</i>
ActPart	<i>sup-a-nt-</i>	<i>sup-us-</i>	<i>sup-dav-us-</i>	<i>sup-sia-nt-</i>
PassPart	<i>sup-a-m-as</i>	<i>sup-t-as</i>	—	<i>sup-si-m-as</i>

Imperative	<i>sup-ki-te</i>	Subjunctive	<i>sup-tumé-te</i>
Infinitive	<i>sup-ti</i>	Converb	<i>sup-dam-as</i>
DebPart	<i>sup-tin-as</i>	Verbal Noun	<i>sup-im-as</i>

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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

	<i>a</i> -stem <i>supti</i> 'wrap'	<i>i</i> -stem <i>mylěti</i> 'love'	<i>o</i> -stem <i>rodyti</i> 'show'
3	<i>sup-a</i>	<i>myl-i</i>	<i>rod-o</i>
1Sg	<i>sup-u</i>	<i>myl-i-u</i> [mi:l'-u]	<i>rod-a-u</i>
2Sg	<i>sup-i</i>	<i>myl-i</i>	<i>rod-a-i</i>
1Pl	<i>sup-a-me</i>	<i>myl-i-me</i>	<i>rod-o-me</i>
2Pl	<i>sup-a-te</i>	<i>myl-i-te</i>	<i>rod-o-te</i>

Major conjugation classes

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-ě-ti*, Prs *myl-i*, Pst *myl-ě-jo*

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

‘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-ě-ti*, Prs *balt-ě-ja*, Pst *balt-ě-jo*

‘whitewash’: Inf *bal-in-ti*, Prs *bal-in-a*, Pst *bal-in-o*

‘serve’: Inf *tarn-au-ti*, Prs *tarn-au-ja*, Pst *tarn-av-o*

‘divide’: Inf *dal-y-ti*, Prs *dal-ij-a*, Pst *dal-ij-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': *gin-ti*, *gin-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**)

Indicative			
Present Finite	Past Finite	Habitual Past Finite	Future Finite
Present ActPart	Past ActPart	Habitual Past ActPart	Future ActPart
Present PassPart	Past PassPart		Future PassPart

Imperative	Converb	DebPart
Subjunctive	Infinitive	Verbal Noun

The three stems

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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*, *skund*ž*i-a*, *skund*[d']-*é*: √ *skund-*

`go': *ei-ti*, *ein-a*, *é*[e:]*j-o*: √ *ei-*

`throw': *mes-ti*, *met-a*, *met*[t']-*é*: √ *met-*

`fly': *skris-ti*, *skrend-a*, *skrid-o*: √ *skrid-*

`be': *bū-ti*, 1Pl *es-a-me*, *buv-o*: √ *buv-*

`tread down': *min-ti*, *min-a*, *my*[i:]*n'-é*: √ *min-*

`grow': *aug-ti*, *aug-a*, *aug-o*: √ *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 + *-ti* + (automatic) morphophonological operations, i.e. dissimilation of coronal stops ('let' $\sqrt{\textit{leid}} + \textit{ti} > \textit{leisti}$), SK-metathesis ('knot' $\sqrt{\textit{mezg}} + \textit{ti} > \textit{megzti}$), elimination of *n* before *s* + compensatory vowel lengthening ('send' $\sqrt{\textit{siunt}} + \textit{ti} > \textit{si[u:]sti}$).

The status of the Infinitive stem

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

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'æš-ú/ vs. 's/he carries': /n'æ̃:š-a/

'you can': /gal'-í/ vs. 's/he can': /gã:l'-i/

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

'to carry': /n'æš-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'æš'-i-t'æ/, /táp-s'i-t'æ/

Imp2Pl: /n'æš-ki-t'æ/, /táp-k'i-t'æ/

vs. Pst2Pl: /n'ǣ:š'-e:-t'æ/, /tǣ: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' /gvaĩb-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:

	Inf	PPP
'steal'	<i>vogti</i>	<i>vogtas</i>
'talk'	<i>kalbėti</i>	<i>kalbėtas</i>
'show'	<i>rodyti</i>	<i>rodytas</i>
'call'	<i>vadinti</i>	<i>vadintas</i>

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'æš-t'i/ vs. PPP /n'æ:š-t-as/

`pick': Inf /rák-t'i/ vs. PPP /rã:k-t-as/

`finish': Inf /pa-baig-ti/ vs. PPP:

NomSgMasc /pá-baig-t-as/, NomSgFem /pa-baig-t-á/

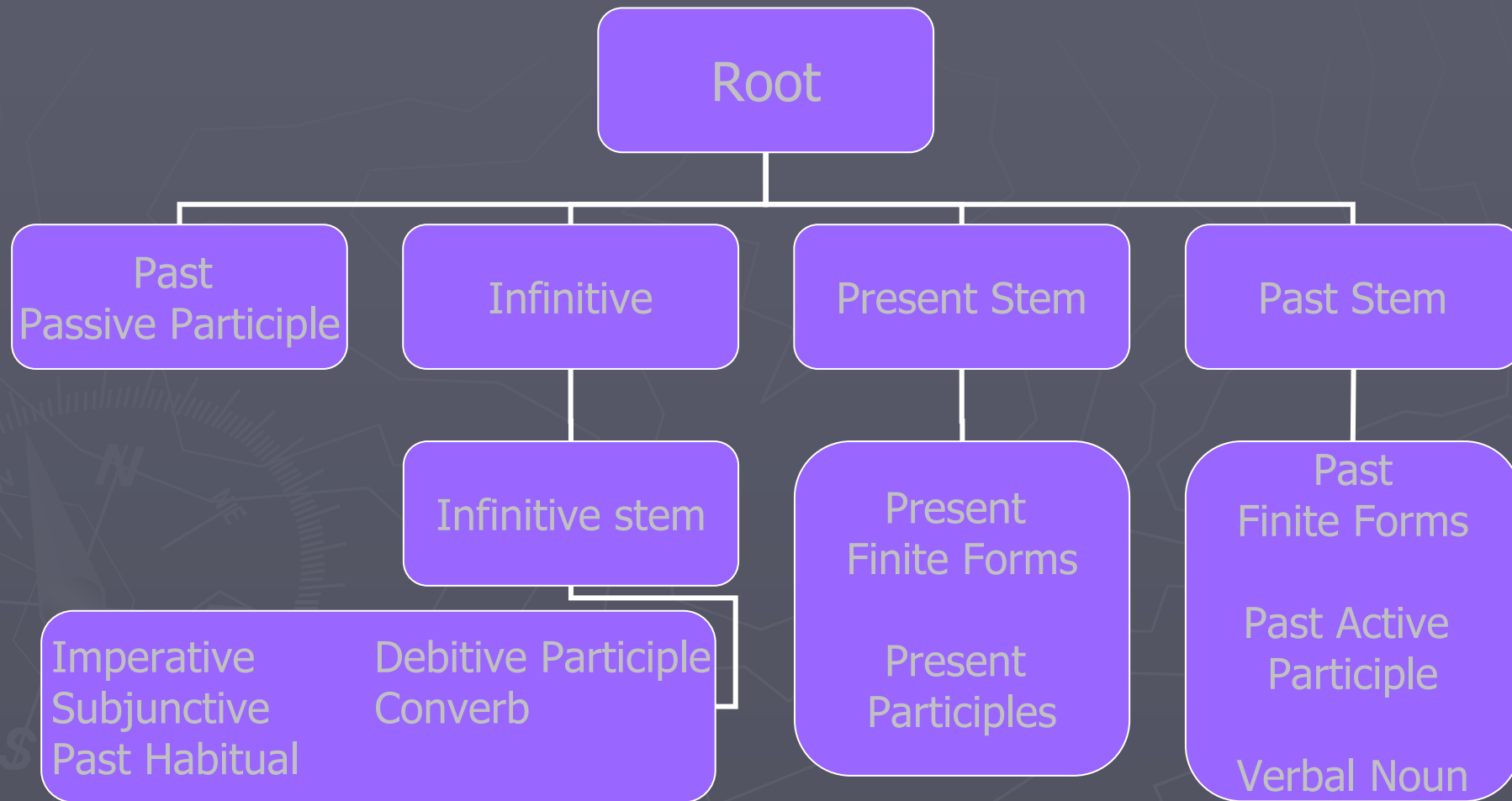
The status of the Infinitive stem

- ▶ 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.

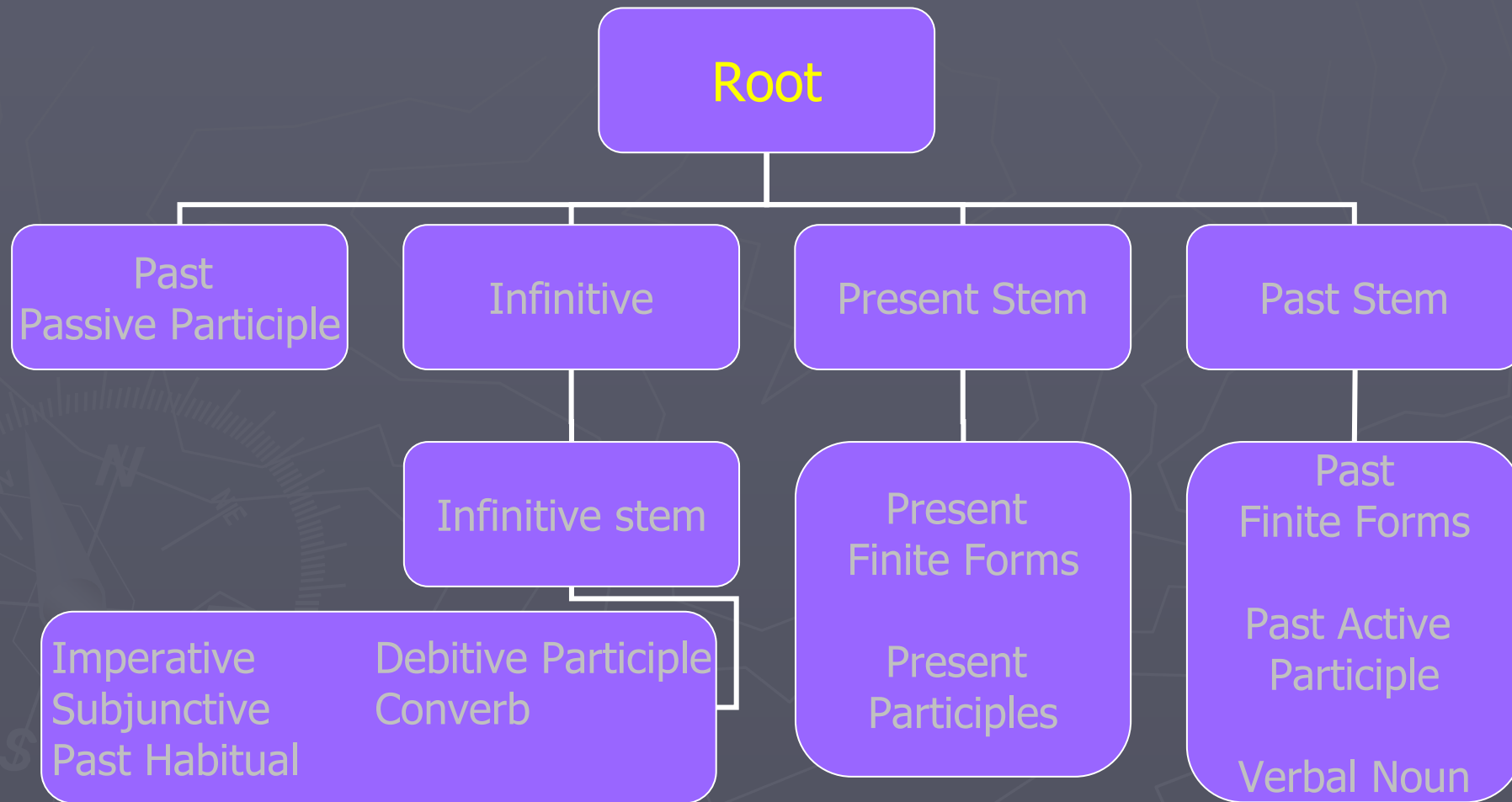
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2. Major conjugation classes
3. The three stems
4. The root
5. The status of the Infinitive stem
6. Summary
7. Conclusions

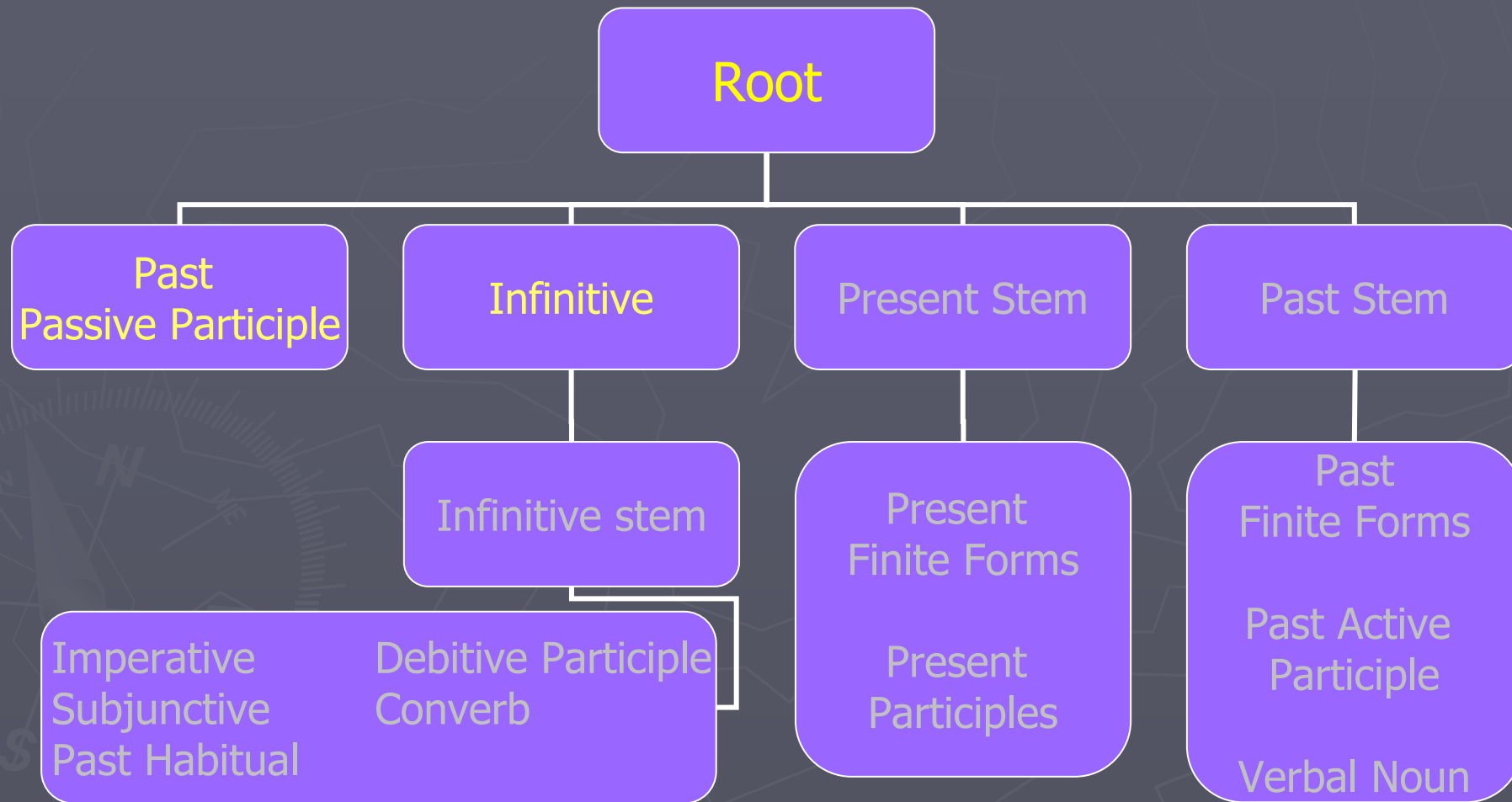
Summary: A refined inheritance tree of the Lithuanian verbal paradigm



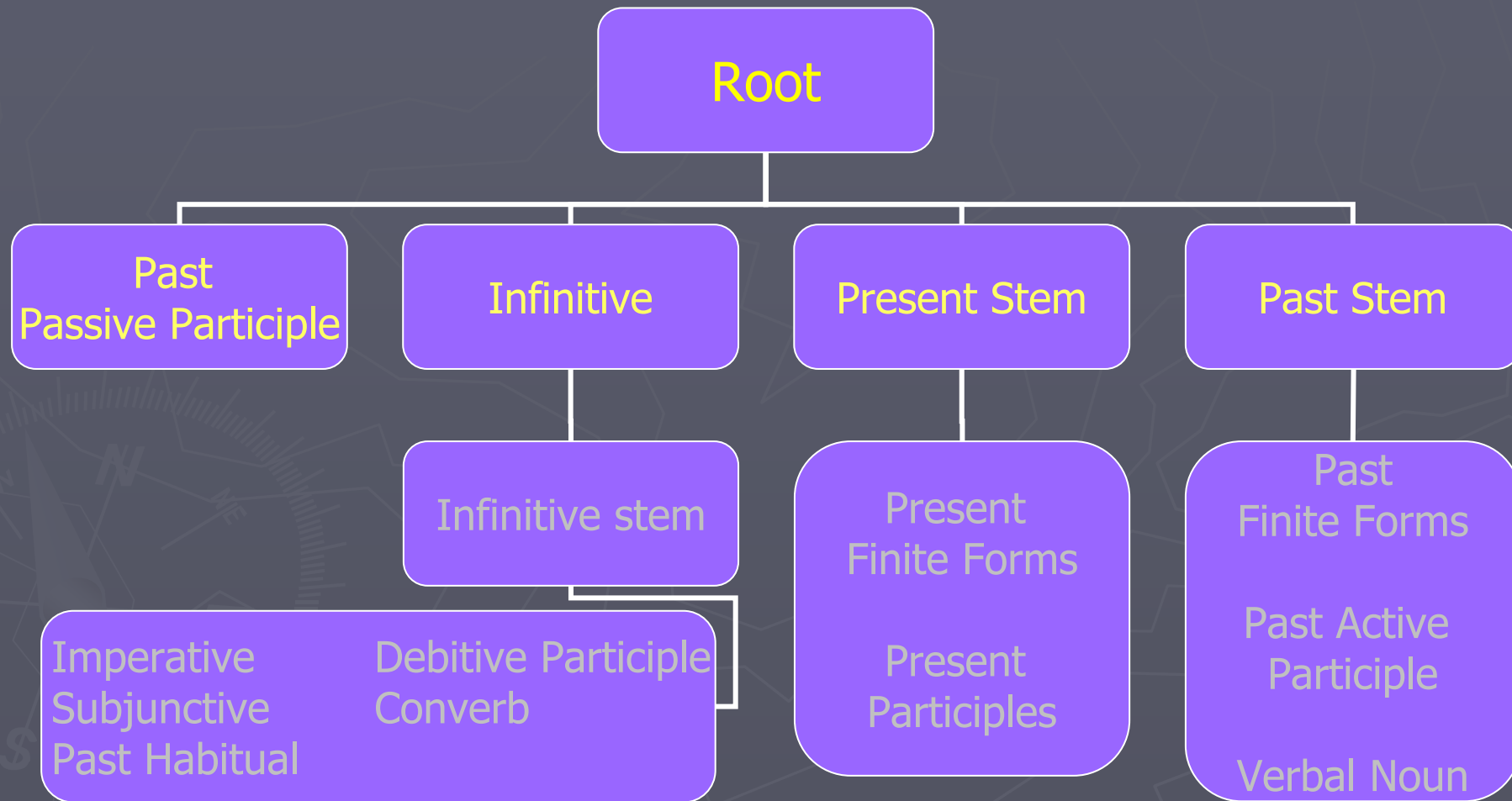
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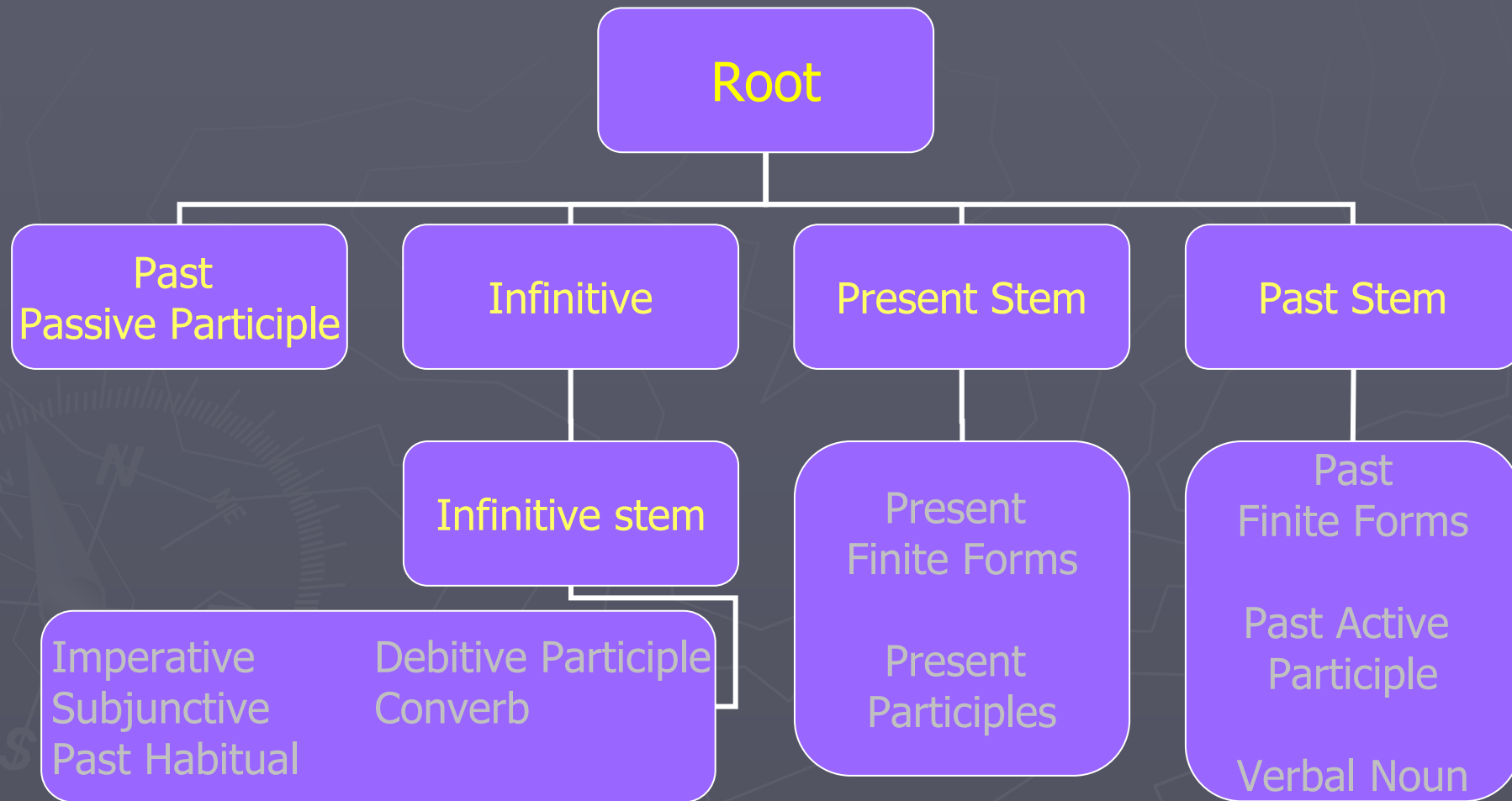
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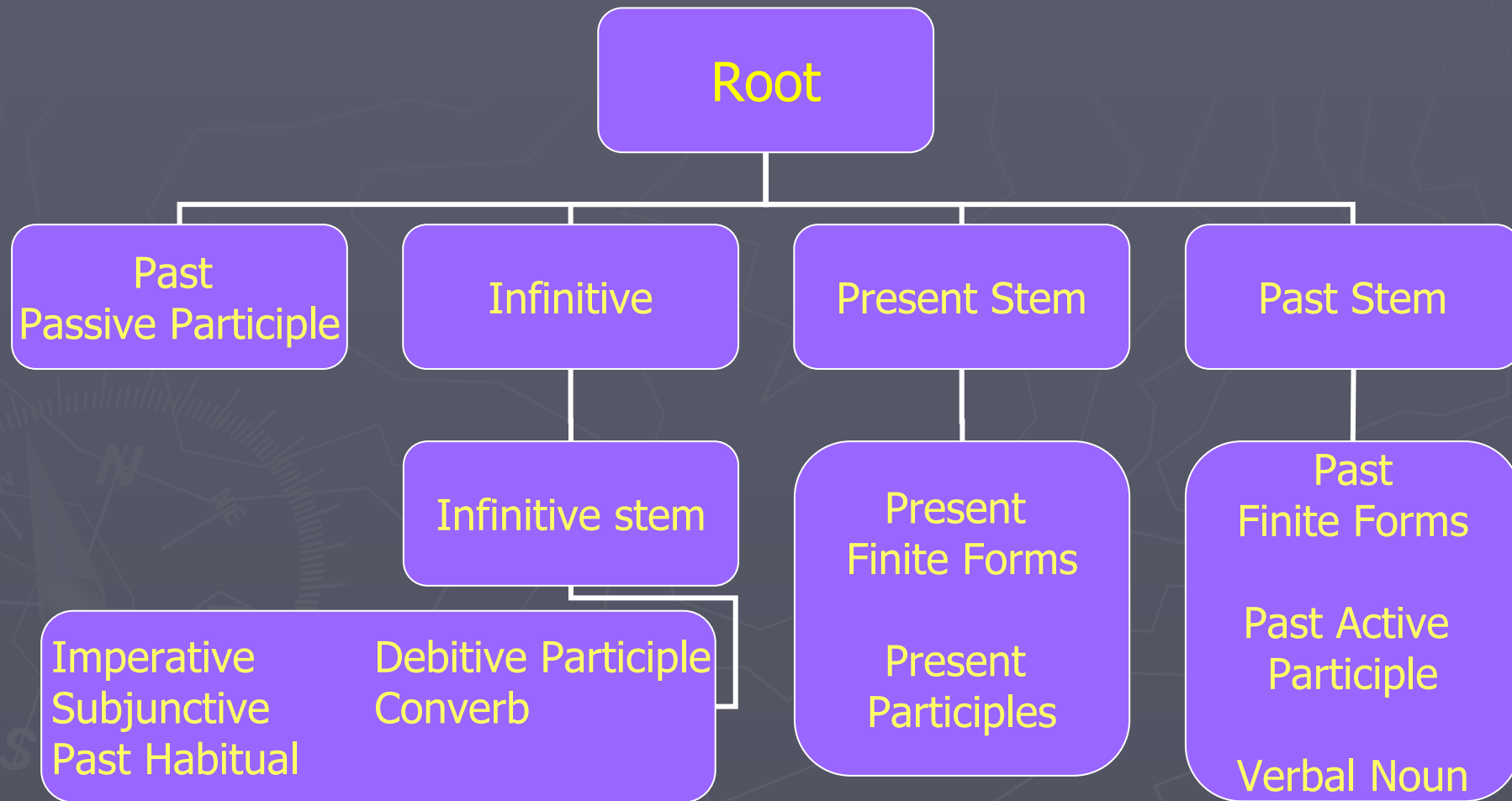
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Conclusions

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

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