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Almost parallel translations as a comparative tool: Baltic flagging in diachrony

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Flagging and flag

Argument marking:

➔ via PERSON INDEXES

➔ via FLAGS

Flagging and flag

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➔ via PERSON INDEXES

➔ via **FLAGS — cases and adpositions:**

A flag is a bound form that occurs on a nominal and that indicates the semantic or syntactic role of the nominal with respect to a verb (in a clause) or with respect to a possessed noun (in a complex nominal). (Haspelmath 2019: 96)

Flagging and flag

Argument marking:

➔ via PERSON INDEXES

➔ via **FLAGS — cases and adpositions:**

This study: argument AND adjunct marking:
I saw him-<u>ACC</u> <u>on</u> Monday → 2 flags
I saw him-ACC yesterday → 1 flag

A flag is a bound form that occurs on a nominal and that indicates the semantic or syntactic role of the nominal with respect to a verb (in a clause) or with respect to a possessed noun (in a complex nominal). (Haspelmath 2019: 96)

Research question

1. Do two living Baltic languages — Lithuanian and Latvian — keep the flagging already attested in 16th century (in the translations from German)?

   Is it true that the flags we see today were formed even before the introduction of the standardized written language? In this case, there should be no difference between the old and modern flags in Latvian and Lithuanian

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2. To what extent the two (vernacular) Baltic languages of that period were susceptible to copying German argument-coding patterns?

   German had/has less synthetic flags (cases) than the Baltic languages but all of them have analytic flags (adpositions). How readily Old Latvian and Old Lithuanian calque the adpositions? The difference in flagging analyticity level could show the difference in susceptibility of German flagging patterns

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Old Latv vs. Modern Latv
Old Lith vs. Modern Lith

2. To what extent the two (vernacular) Baltic languages of that period were susceptible to copying German argument-coding patterns?

German vs. Old Latvian
German vs. Old Lithuanian

Research question in context

What is the role of language standardization process for language change (Koller 1998; McLaughlin 2011)? Namely, for change in flagging?

➔ being less conscious compared to vocabulary, appear to be less controlled (by all kinds of speakers, incl. pioneer translators, codifiers, purists)

➔ relatively low [right] in borrowability scales, see Muysken (1981), Matras (2007), Field (2002), Gardani, Arkadiev, Amiridze (2015)

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- ➔ relatively low [right] in borrowability scales, see Muysken (1981), Matras (2007), Field (2002), Gardani, Arkadiev, Amiridze (2015)
- ➔ translations can promote/increase in usage the constructions shared by source and target language
- ➔ early texts are usually being created in a highly bilingual environment → interference

Research question in context

What-when-why causes the change in flagging for closely related languages?

➔ only 69% (=71/103) of shared flags in Latvian and Lithuanian (Alfimova, accepted, also see BivalTyp database)

cf. 79% of shared flags in Serbian and Slovenian,
64% of shared flags in Serbian and Latvian,
59% of shared flags in Serbian and Norwegian (Bokmal)

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Research q

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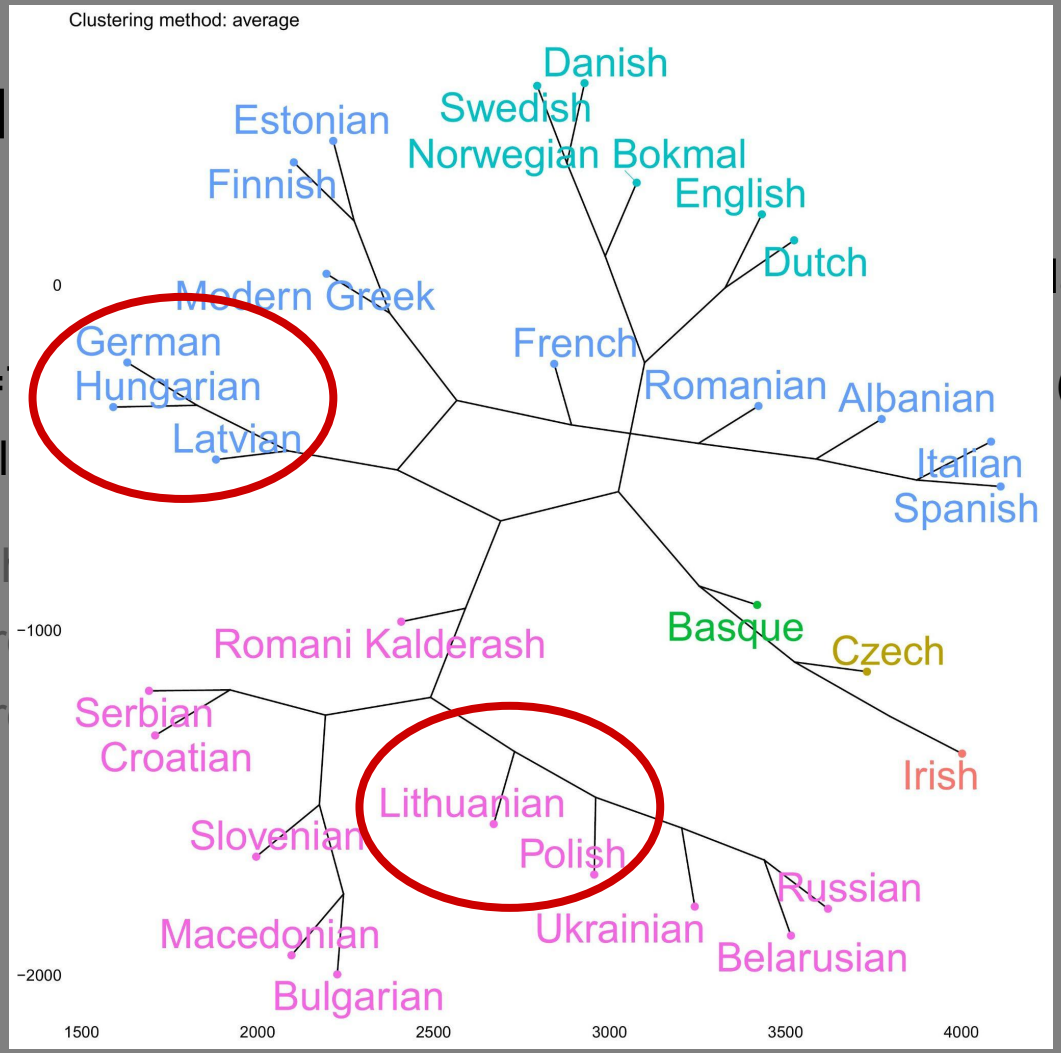


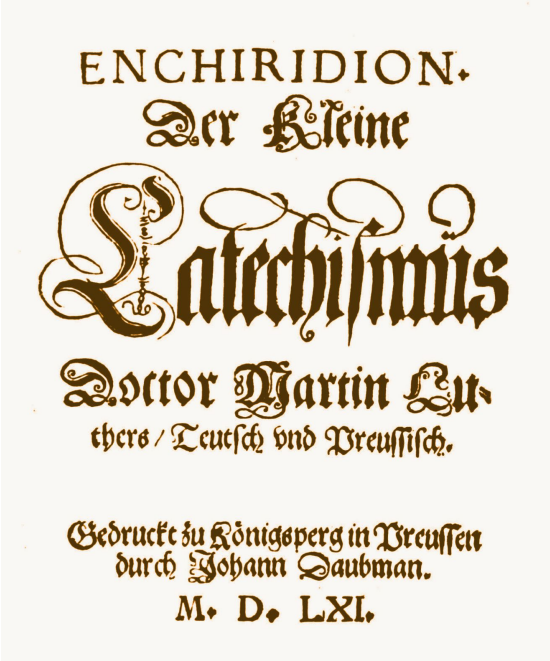
Structure

I. **Data:**
   - Sources
   - Sample
   - Descriptive statistics
II. Method
III. Results

Sources

Martin Luther's Small Catechism (1529) translations into Baltic languages in 16th century:

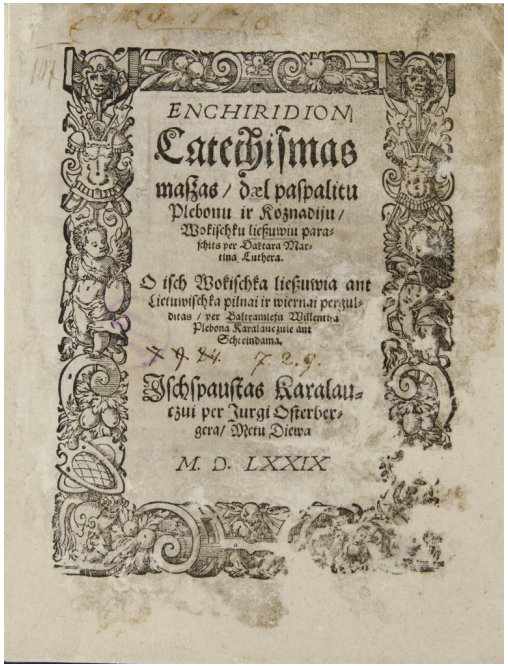
Old Prussian (1561)



ENCHIRIDION.
Der Kleine
Catechismus
Doctor Martin Luthers / Teutsch vnd Preussisch.

Gedruckt zu Königsperg in Preussen durch Johann Daubman.
M. D. LXI.

Old Lithuanian (1579)



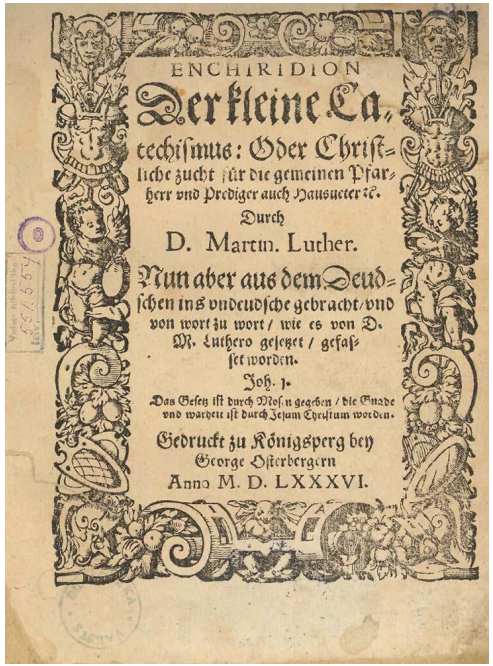
ENCHIRIDION
Catechismas
maszas / dæl paspaliu
Plebonu ir Koznadiju /
Wokischku lieszuwiu paraszhits per Dattara Martina Luthera.

O isch Wokischka lieszuwia ant Lietuwischka pilnai ir wiernai perguldintas / per Baltramiesu Willentha Plebona Karalauczuie ant Scheindama.

Jschspaustas Karalauczui per Jurgi Osterbergera / Metu Diewa

M. D. LXXIX

Old Latvian (1586)

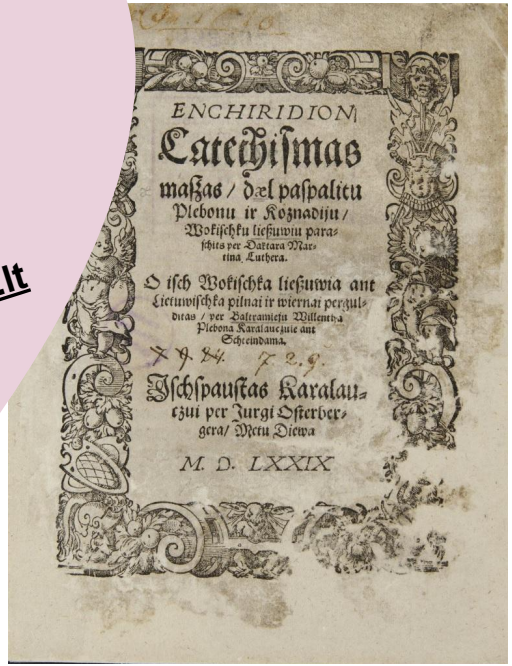


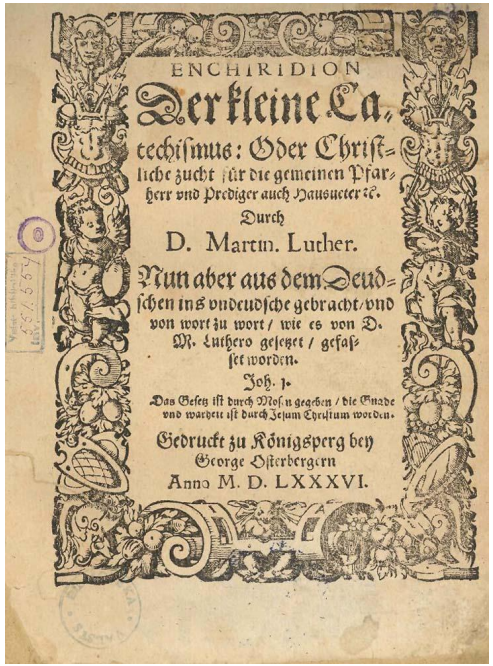
ENCHIRIDION
Der kleine Catechismus: Oder Christliche zucht / für die gemeinen Pfarrherr vnd Prediger auch Hausuater ꝛc.
Durch
D. Martin. Luther.
Nun aber aus dem Deudschen ins vndeudsche gebracht / vnd von wort zu wort / wie es von D. M. Luthero gesetzet / gefasset worden.
Joh. 1.
Das Gesetz ist durch Mosen gegeben / die Gnade vnd warheit ist durch Jesum Christum worden.
Gedruckt zu Königsperg bey George Osterbergern
Anno M. D. LXXXVI.

Sources

Martin Luther's Small C[illegible]29) translations into Baltic languages in 16th century:

Old Prussian (1[illegible] Lithuanian (1579) Old Latvian (1586)





titus.uni-frankfurt.de

senie.korpuss.lv

seniejirastai.lki.lt

kolekcijos.biblioteka.vu.lt

Sources

Latvian translations in this study	Lithuanian translations in this study
Old Latvian (1586)	**Old** Lithuanian (1579)
• anonym (apparently bilingual at least in German and Latvian) • Proofreading by four pastors from Courland	• B. Willent (bilingual in Lithuanian and German) • No proofreading (however, his relative Mosvid/Mažvydas was also engaged in literary work)
Modern Latvain (2012)	*Modern* Lithuanian (2007)
Contemporary texts easily googleable and available online	

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Sample

The text of the Ten Commandments commented by Martin Luther and its translations into OLatv, OLith, MLatv and MLith.

The Seventh Commandment

You shall not steal.

What does this mean?

We should fear and love God so that we do not take our neighbor’s money or possessions, or get them in any dishonest way, but help him to improve and protect his possessions and income.

Sample

The text of the Ten Commandments commented by Martin Luther and its translations into OLatv, OLith, MLatv and MLith were aligned parallelly and tagged for:

- the lexical verb in each clause
- argument and adjunct coding (case, preposition or drop?)
- some properties of the verb (polarity: yes/no, prefix: yes/no)

Sample

source	clause	sentence	verb	NEG	PREF	a1	a2	a3…
original	*vnd jm* ***vertrawen****.*	3	trust	0	1	DROP	DAT	
olv	*vnd vs to* ***Czerreet****.*	3	trust	0	0	DROP	PP	
mlv	*un uz Viņu* ***paļauties****.*	3	trust	0	1	DROP	PP	
olt	*ir iem* ***nůlĩtikieti****.*	3	trust	0	1	DROP	INS	
mlt	*ir Juo* ***pasitikėti****.*	3	trust	0	0	DROP	INS	

Sample

source	clause	sentence	verb	NEG	PREF	a1	a2	a3…
original	*vnd jm* ***vertrawen****.*	3	trust	[illegible]	[illegible]	[illegible]	DAT	
olv	*vnd vs to* ***Czerreet****.*	3	trust	[illegible]	[illegible]	[illegible]	PP	
mlv	*un uz Viņu* ***paļauties****.*	3	trust	0	[illegible]	[illegible]	PP	
olt	*ir iem* ***nůſſitikieti****.*	3	trust	0	1	DROP	INS	
mlt	*ir Juo* ***pasitikėti****.*	3	trust	0	0	DROP	INS	

Subjects

Objects

Adjuncts

Structure

I. **Data:**
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Sample: Descriptive statistics

- 1 original text, 4 translations
- 243 clauses in total (= 46-51 clauses per language)
- 1360 tokens

Sample: Descriptive statistics

	German (original)	OLatv	MLatv	OLith	MLith
N_{TOKENS}	**296**	324	281	219	240
$\frac{N_X}{N_{GERMAN}}$	**1**	1.09	0.95	0.74	0.81

Descriptive statistics: Tokens

	German (original)	OLatv	MLatv	OLith	MLith
N_{TOKENS}	**296**	324	281	219	240
$\frac{N_X}{N_{GERMAN}}$	**1**	1.09	0.95	0.74	0.81

OLatv > German > MLatv > MLith > OLith

Descriptive statistics: Tokens

German	Du ſolt kein falſche zeugnus geben wider deinen Nechſten. (9)
OLatv	Thöw nhe buus nhepatte§e Letczibe doth prettibe touwe Tuwake. (9)
MLatv	Tev nebūs nepatiesi liecināt pret savu tuvāko. (7)
OLith	Ne ludik neteiſaus ludima prieſch artima tawa. (7)
MLith	Neliudyk neteisiai prieš savo artimą. (5)
	‘You shall not give false testimony against your neighbor.’

German = OLatv > MLatv = OLith > MLith

Descriptive statistics: Tokens

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N_{TOKENS}	**296**	324	281	219	240
$\frac{N_X}{N_{GERMAN}}$	**1**	1.09	0.95	0.74	0.81

Descriptive statistics: Tokens

German	vnd ein yeglicher **ſein gemahel** lieben vnd ehren. (8)
OLatv	vnde ka Jckwens **ßouwe loulathe Drouge** myle thur vnd gode. (10)
MLatv	un ikviens **savu laulāto draugu** mīlam un cienām. (8)
OLith	idanti koſʒnas **moteri ſawa** miletu, bey cʒeſtije laikitu. (8)
MLith	ir kiekvienas **savo žmoną ar vyrą** mylėtume ir gerbtume. (9)
	‘…and wife (or husband) love and honor.’

OLatv > MLith > German = MLatv = OLith

Descriptive statistics: Verbs

	German (original)	OLatv	MLatv	OLith	MLith
Clauses	48 (293)	49 (324)	51 (281)	46 (219)	49 (240)
$\frac{N_{CLAUSES}}{N_{TOTAL}}$	16%	15%	18%	21%	20%

Predicative load?

Descriptive statistics: Verbs

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$\frac{N_{CLAUSES}}{N_{TOTAL}}$	16%	15%	18%	21%	20%

Predicative load?

Descriptive statistics: Verbs

	German (original)	OLatv	MLatv	OLith	MLith
Unique lexical verbs	36 (293)	39 (324)	43 (281)	36 (219)	38 (240)
$\frac{N_{UNIQUE}}{N_{TOTAL}}$	12%	12%	15%	16%	16%

Descriptive statistics: Verbs

	German (original)	OLatv	MLatv	OLith	MLith
Unique verbs corr. to German	**36 (36)**	33 (39)	26 (43)	25 (36)	23 (38)
$\frac{N_{X=GERMAN}}{N_X}$	**100%**	85%	60%	69%	61%

Descriptive statistics: Verbs

	German (original)	OLatv	MLatv	OLith	MLith
Unique verbs corr. to German	**36 (36)**	33 (39)	26 (43)	25 (36)	23 (38)
$\frac{N_{X=GERMAN}}{N_X}$	**100%**	85%	60%	69%	61%

only 21 shared lexical verbs in all 5 texts:
hold, have, fear, love, trust, curse, praise, thank, sanctify, contemn, honor, live, kill, do, help, steal, belie, talk, covet, keep, stay

Descriptive statistics: Summary

1. N of tokens: OLatv > German > MLatv > MLith > OLith
   Diachronically, the number of tokens decreases for Latvian and increases for Lithuanian. (Does it mean that over time Latvian became more synthetic and Lithuanian — more analytic?)
2. Predicative load: German = OLatv < MLatv < OLith = MLith
   Diachronically, the predicative load for Latvian grows, whereas for Lithuanian it stays at the same level.
3. Lexical verb ratio to German: OLatv > OLith > MLatv > MLith
   The ratio of lexical verbs attested in translations to the lexical verbs in original text is higher for old translations than for modern ones. (Does it mean that Old Latvian shall be considered more susceptible to German-like argument/adjunct structure?)

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Method

➔ Today:

Compare the **analyticity** level of the texts:

analytic flags (adpositions) vs. synthetic flags (cases);

N of analytic flags / N of verbs

➔ Future plans:

Compute the distances between languages based on flagging;

Mixed linear model with random predictors (lexical verbs);

Suggestions?

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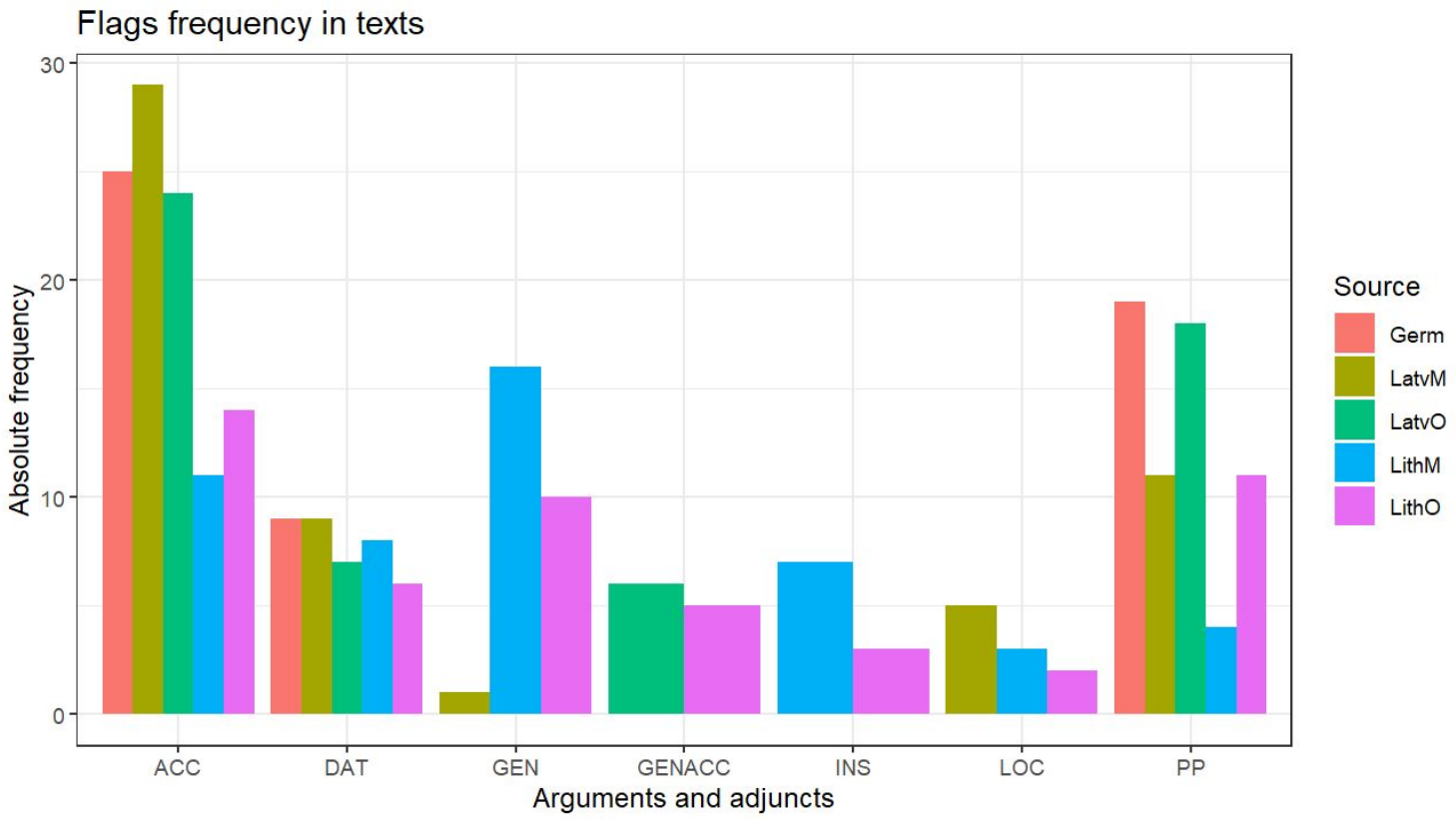
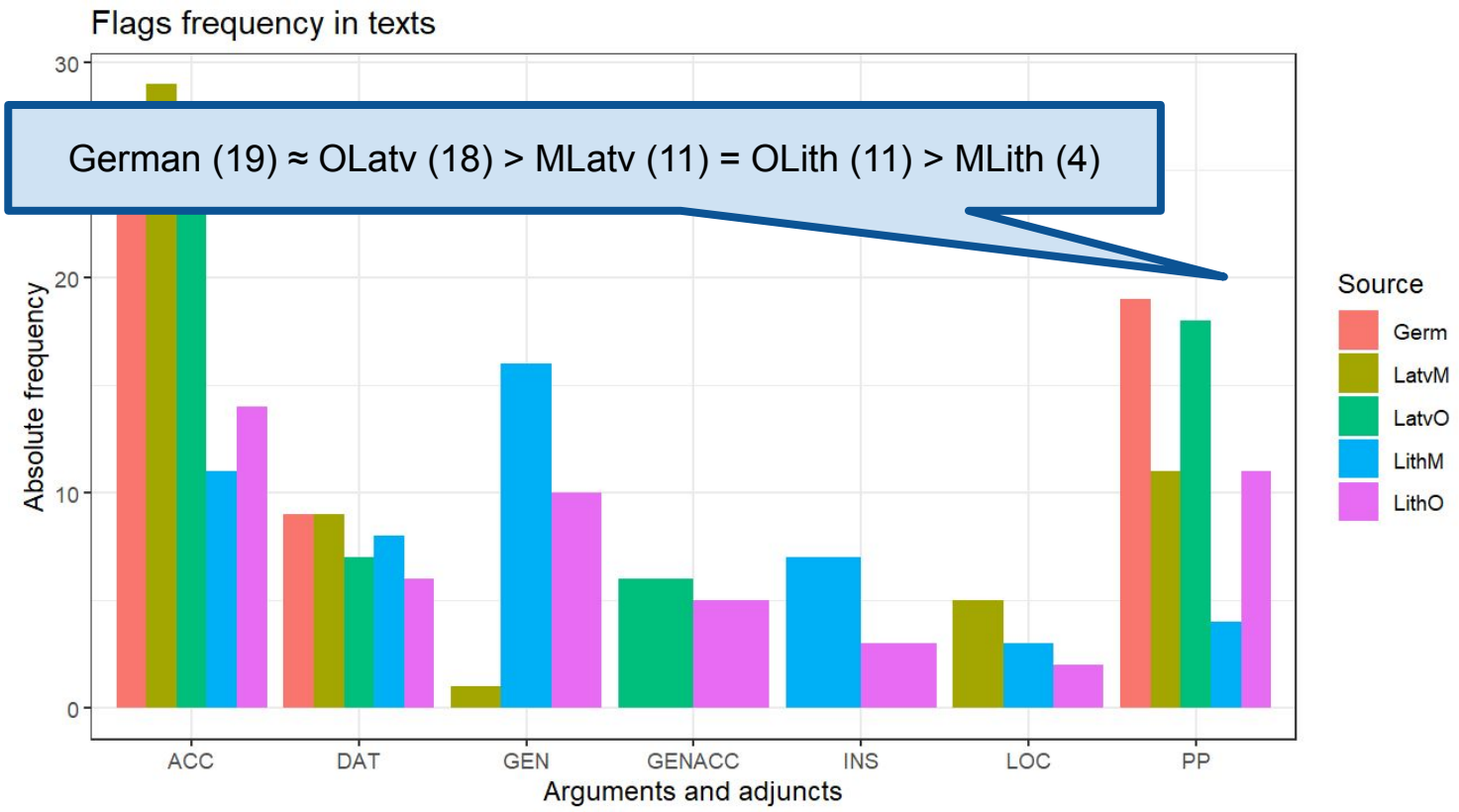
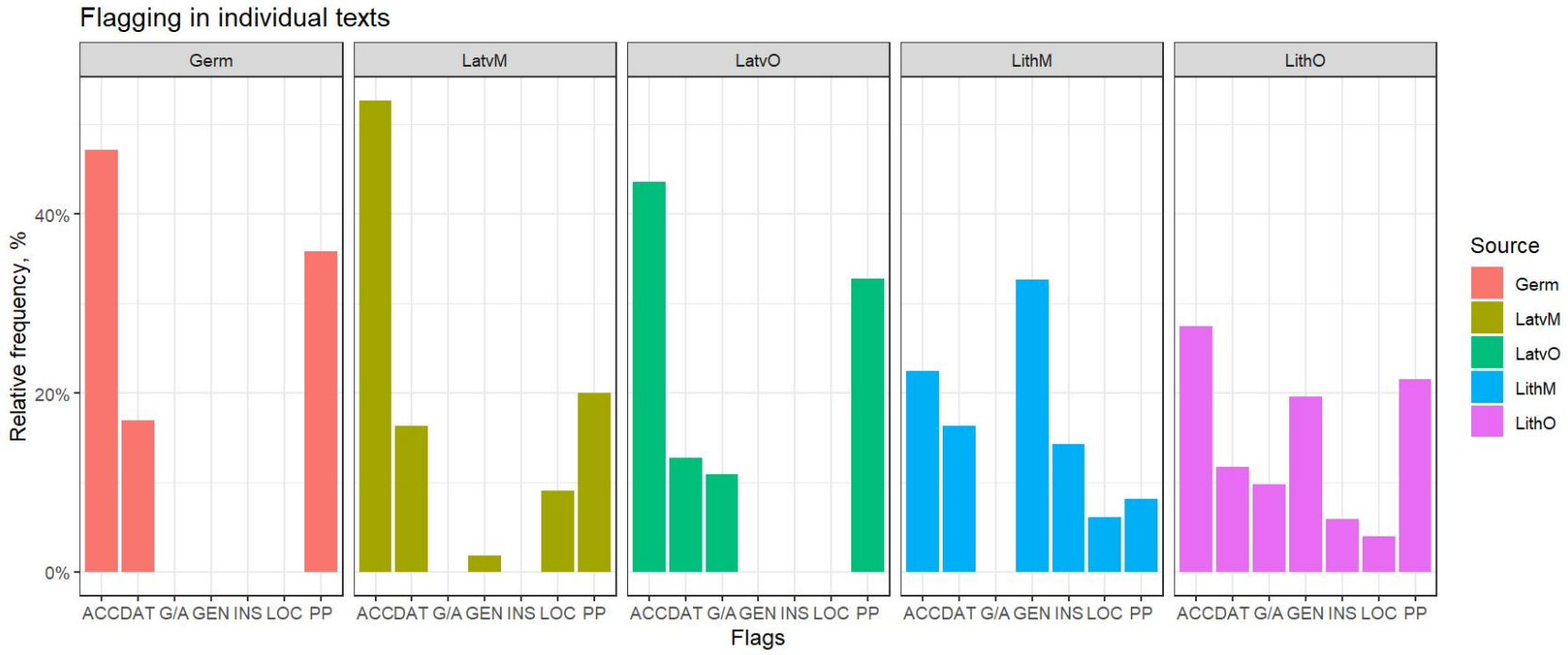
Result: Analyticity



Result: Analyticity



Result: Analyticity



Result: Analyticity

1. The number of adpositions is higher in old texts than in modern ones.
2. The flagging in Old Latvian translation is as analytic as German, whereas the flagging in Old Lithuanian is much less analytic than Old Latvian and German.

Result: Analyticity

- Oblique cases (DAT, INS, LOC) vs. PP
- Hypothesis 0: there is no difference in analyticity in old and modern texts
- Fisher's Exact Test for language pairs: OLatv—MLatv, OLith—MLith

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	OLatv	%	MLatv	%
Case	7	28%	14	56%
PP	18	72%	11	44%
Sum	25		25	
Odds ratio: 3.191935, p-value = 0.08451 → **H0 is confirmed. No difference**				

Result: Analyticity

- Oblique cases (DAT, INS, LOC) vs. PP
- Hypothesis 0: there is no difference in analyticity in old and modern texts
- Fisher's Exact Test for language pairs: OLatv—MLatv, OLith—MLith

	OLith	%	MLith	%
Case	11	50%	18	82%
PP	11	50%	4	18%
Sum	22		22	
Odds ratio: 4.339966, ***p-value = 0.05461*** → **H0 is denied. There is a difference**				

Result: Analyticity

- Relative frequency: N of PP/N of verbs

	Germ	%	OLatv	%	MLatv	%	OLith	%	MLith	%
PP	19	**40%**	18	**37%**	11	**22%**	11	**24%**	4	**8%**
Verbs	48		49		51		46		49	

Result: Analyticity

To sum up, the analyticity level does not differ significantly for OLatv and MLatv, but it does for OLith and MLith.

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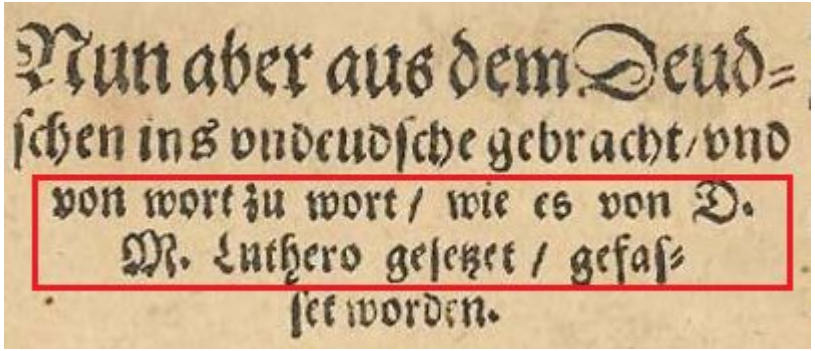
Factors?


Nun aber aus dem Deud-
schen ins vndeudsche gebracht/vnd
von wort zu wort / wie es von D.
M. Luthero gesetzet / gefas-
set worden.

- Translation strategy?
- Inner function-driven language change?
- Language contact?
- Promotion of analyticity via early translations by non-native speakers?

Conclusions

1. Do two living Baltic languages — Lithuanian and Latvian — keep the flagging already attested in 16th century (in the translations from German)?

   Is it true that the flags we see today were formed even before the introduction of the standardized written language? In this case, there should be no difference between the c
   Lithuanian

   Old Latv vs. Modern Latv
   Old Lith vs. Modern Lith

2. To what extent the two (vernacular) Baltic languages of that period were susceptible to copying German argument-coding patterns?

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   (adpositions). How readily Old Latvian and Old Lithuanian calque th ng
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   Old Latv ≈ Modern Latv
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   analyticity level could show the difference in susceptibility of German flagging patterns

   German ≈ Old Latvian
   German > Old Lithuanian

Universität Potsdam

Thank you!

Thank you!

And thanks to my colleagues from Uni Potsdam:
Ilja Seržant, Kirill Kozhanov, Maria Ovsjannikova, Sergey Say, Dmitri Sitchinava