Full valency and the position of enclitics in the Old Czech

Radek Čech
Pavel Kosek
Ján Mačutek
Olga Navrátilová

Development of the Czech pronominal (en)clitics

- supported by the national project (GAČR GA17-02545S)
- analysis of enclitics from 14th century to 20th century
- word order
- Biblical texts

Enclitics

- language units that are phonetically dependent on preceding word
- there must be no syntactic relationship between enclitic and preceding word
- form
  - discrete morpheme
  - auxiliary verb
  - pronoun

[*Co*] *sě tobě vidí, Šimone?*
what$_{NOM}$ REFL$_{ACC}$ see$_{3.PS.SG.PRAES}$
‘What is thy opinion, Simon? ’
Bible olomoucká (BiblOl) Mathew 17,24

Enclitics (in verb finite phrase) in Contemporary and Old Czech

- Contemporary Czech
  - relatively stable position = after the first phrase of clause (from the first half of 20. century)

- Old (and Middle) Czech
  - word order variation

Word order of enclitics in Old Czech

1. the postinitial position (the Wackernagel's Law)

[I][E][]*

[*toho věku*] *sě jemu porodil Isák*

that$_{\text{GEN.F.SG}}$ *age*$_{\text{GEN.F.SG}}$ REFL$_{\text{ACC}}$ *him*$_{\text{DAT.M.SG}}$ *born*$_{\text{PART.PRET.ACT.NOM.SG.M}}$ *Isaac*$_{\text{NOM.M.SG}}$

'And as Abraham was a hundred years old, his son Isaac was born to him.'

BiblOl Genesis 21,5

Word order of enclitics in Old Czech

2. the non-postinitial position

[I][][]*[E][]*

[*Volánie Sodomských a Gomorrejských*] *rozmnožilo* *sě* *jest*

outcry$_{NOM.N.SG}$ sodom$_{ADJ.GEN.M.PL}$ and gomorrha$_{ADJ.GEN.M.PL}$ multiply$_{PART.PRET.ACT.N.SG}$ REFL$_{ACC}$ be$_{AUX.PRET.3.SG}$

'The cry of Sodom and Gomorrha is multiplied'

BiblOl Genesis 18,20

Research questions

- are there any regularities in a word order distribution of enclitics in Old Czech?
- how are particular word order positions connected to other language properties?

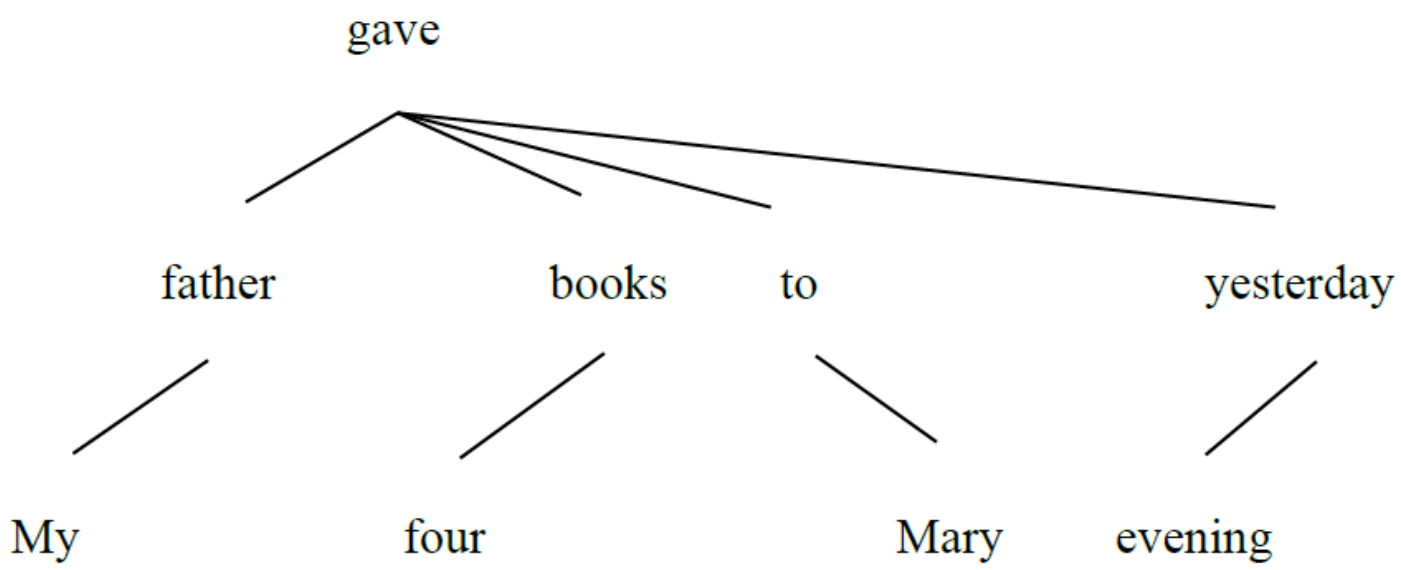
- style
- length of initial phrase
- groups of particular enclitics bahave differently

Hypothesis

The higher the full valency of the predicate,
the lower the probability of the occurrence of the enclitic
after the initial phrase of the clause.

Full valency (FV)

- is a reaction to the absence of reliable criteria for distinguishing obligatory arguments (complements) and non-obligatory arguments (optional adjuncts)
- all directly dependent units of the predicate which occur in the actual language usage comprise its full valency frame



Full valency & word order of enclitics

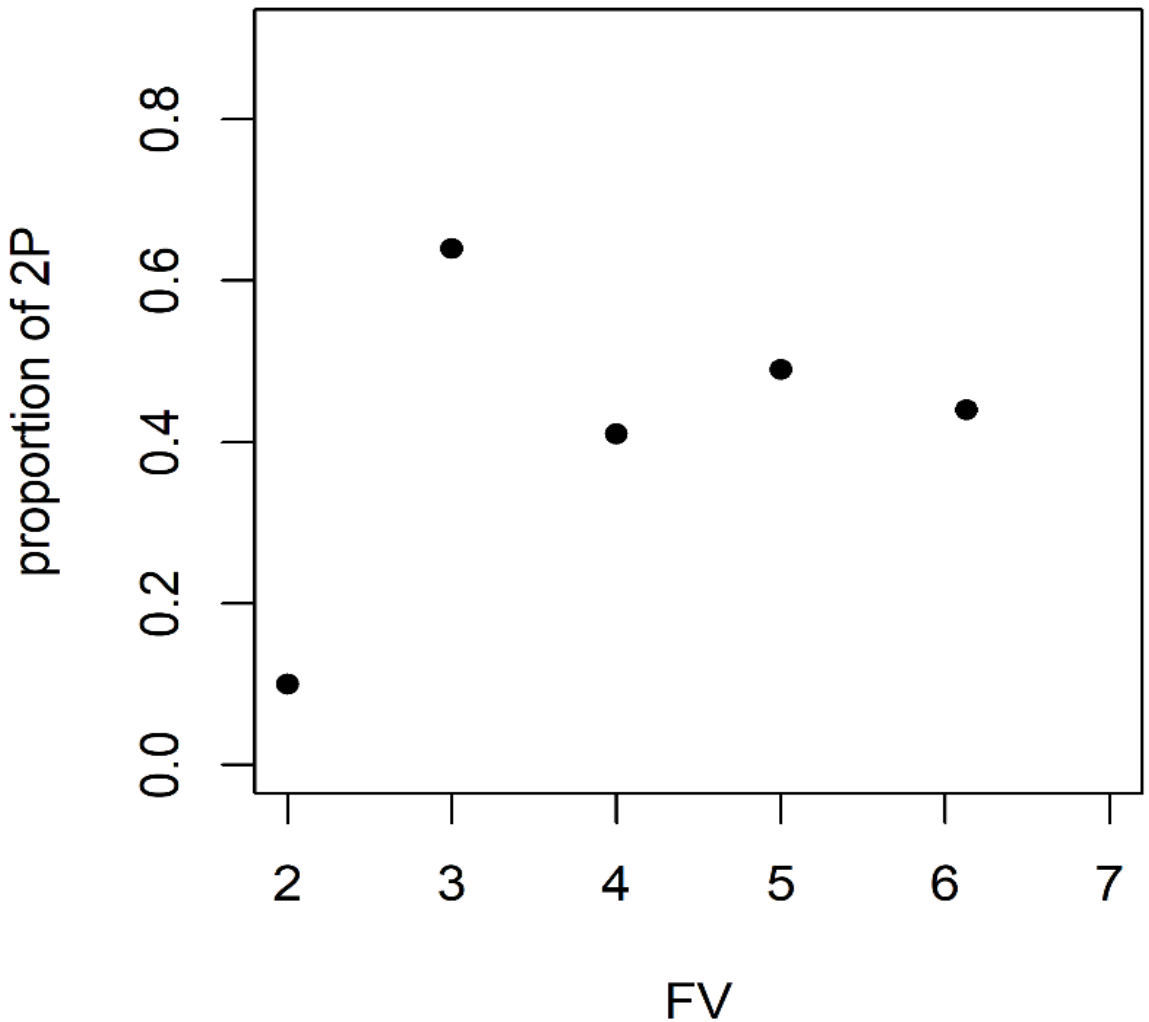
- higher FV of the predicate → higher complexity of the clause
    - (at least at this level of the syntactic tree, i.e. at the root of the clause and its direct dependents)
- the higher complexity of the clause → increasing the probability that the Wackernagel's Law is "violated"

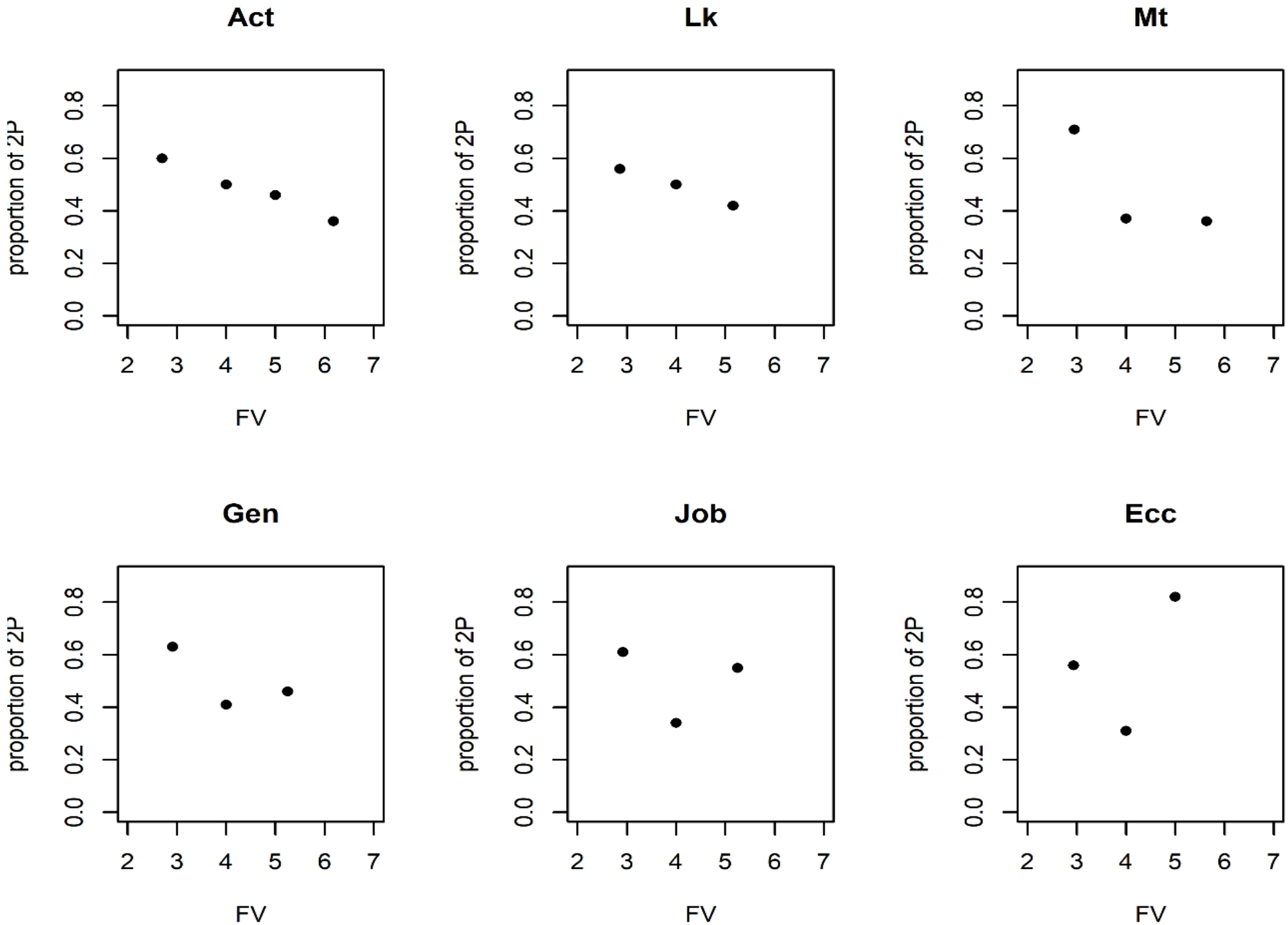
Language material

- the *Olomouc Bible* (Bible olomoucká, BiblOl) and one book (Acts) from *Litoměřice-Třeboň Bible* (Bible litoměřicko-třeboňská, BiblLitTřeb)
- the beginning of 15th century
  - however, it is considered to be copied from missing older translation from 1360
- one of the oldest Old Czech **prose** texts
- Old Testament:
  - Genesis (Gen), Isaiah (Is), Job (Job), Ecclesiastes (Ecc)
- New Testament:
  - Gospel of St. Matthew (Mt), Gospel of St. Luke (Lk), Acts (Act), and Revelation (Rev)

Results

FV	2P	non-2P	proportion of 2P
2	2	18	0.1
3	133	75	0.64
4	81	117	0.41
5	47	49	0.49
6.13	14	18	0.44


proportion of 2P
0.0
0.2
0.4
0.6
0.8
2
3
4
5
6
7
FV


Act
Lk
Mt
Gen
Job
Ecc
proportion of 2P
FV
0.0
0.2
0.4
0.6
0.8
2
3
4
5
6
7

VF_{Act}	$2P_{Act}$	non-$2P_{Act}$	proportion of $2P_{Act}$	VF_{Lk}	$2P_{Lc}$	non-$2P_{Lk}$	proportion of $2P_{Lk}$
2	2	18	0.1	2.86	20	16	0.56
3	133	75	0.64	4	18	18	0.5
4	81	117	0.41	5.16	8	11	0.42
5	47	49	0.49				
6.13	14	18	0.44				
VF_{Mt}	$2P_{Mt}$	non-$2P_{Mt}$	proportion of $2P_{Mt}$	VF_{Gen}	$2P_{Gen}$	non-$2P_{Gen}$	proportion of $2P_{Gen}$
2.95	15	6	0.71	2.91	20	12	0.63
4	7	12	0.37	4	13	19	0.41
5.64	5	9	0.36	5.25	11	13	0.46
VF_{Job}	$2P_{Job}$	non-$2P_{Job}$	proportion of $2P_{Job}$	VF_{Ecc}	$2P_{Ecc}$	non-$2P_{Ecc}$	proportion of $2P_{Ecc}$
2.92	23	15	0.61	2.93	34	27	0.56
4	11	21	0.34	4	12	27	0.31
5.25	11	9	0.55	5	9	2	0.82

Conclusions

- the hypothesis is not falsified for “narrative“ books
- the hypothesis is falsified for “poetic“ books
  - the poetic character of texts → a border condition which restricts the validity of the hypothesis
- the hypothesis is falsified for a mixture of texts