Subject Island and Discontinuous Spellout in Russian: Experimental Approach

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1. Subject island in Russian

- Subject island is typologically weak and can be violated in some cases:
  a. Which candidate$_i$ were there [posters of t$_i$] all over the town?
  b. *Which candidate$_i$ were [posters of t$_i$] all over the town?

- Subject-object subextraction asymmetry in Russian: Polinsky et al. (2013). 3 x 2 AJ experiment:
  - the structural verb type (unaccusative / unergative / transitive)
  - DP position in dependent clauses with *čtoby* (preverbal / postverbal)
- Subject DPs show different degrees of opacity: Ua > Ue > Tr
- Position matters only for object DPs: more opaque when preceding a verb
- However, subjects of simple clauses can be islands too
- **–> Research question:** Do DPs in simple clauses share the same properties?

2. Experiment 1: simple clause

- 4 x 2 AJ experiment (1–7 Likert scale):
- DP type (unaccusative / unergative / transitive subject / transitive object)
- DP position (preverbal XV / postverbal VX)
- *Wh*-extraction with the *wh*-word *čej* 'whose'
- An example of experimental block for XV-position

a.	čji	včera	večerom	deti	zaboleli?	
	whose.PL	yesterday	evening	children.PL	got.sick	
b.	čji	včera	večerom	deti	sygrali	v futbol?
	whose.PL	yesterday	evening	children.PL	played	football
c.	čji	včera	večerom	deti	dočitali	knižku?
	whose.PL	yesterday	evening	children.PL	finished.reading	book.F
d.	čju	včera	večerom	knižku	dočitali	deti?
	whose.F	yesterday	evening	book.F	finished.reading	children.PL

Results. Two-way ANOVA: both the DP type ($F(3,3763) = 67.15$, $p < .0005$) and DP position ($F(1,3763) = 195.08$, $p < .0005$) are statistically significant, and so is their interaction ($F(3,3763) = 25.39$, $p < .0005$)

- Preverbal position is significantly more transparent for every DP type (except for the Ua subject), even for object DPs!
- In the XV position all subject DPs are rated the same and higher than objects
- In the VX position intransitive subjects are rated the same and higher than transitive subjects and objects
- No Unaccusative Subject Advantage
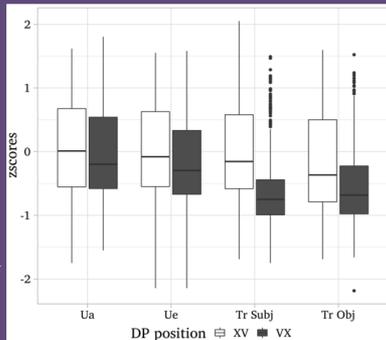
for more details see Belova (2020)

3. Discontinuous spellout (= scattered deletion)

One of the possible explanations for the differences between our results and the ones of M.Polinsky et al. (2013) is that split-DPs in simple and dependent clauses are formed by different mechanisms: subextraction and discontinuous spellout:

| Protiv | sovetskoj | on | vystupal | vlasti |
| against | soviet | he | spoke.out | authorities |

[$_{PP}$Protiv [$_{DP}$sovetskoj vlasti] on vystupal [$_{PP}$protiv [$_{DP}$sovetskoj vlasti]]

4. Experiment 2: PP subextraction vs DS

- Hypothesis: if DS in bipredicative clause is forbidden, there will be the superadditivity effect for this condition (signaling parser overload)
- 2 x 2 AJ experiment (1–7 Likert scale):
- clause structure (simple / dependent)
- spellout type (full / discontinuous)

a.	Na	kakuju	kartinu	Pet'a	posmotrel?
	on	what.sort.F	painting.F	Pet'a	looked.at
b.	Na	kakuju	Pet'a	posmotrel	kartinu?
	on	what.sort.F	Pet'a	looked.at	painting.F
c.	Na	kakuju	kartinu	Vas'a	xočet,
	on	what.sort.F	painting.F	Vas'a	wants
	čtoby	Pet'a	posmotrel?		
	conj	Pet'a	looked.at		
d.	Na	kakuju	Vas'a	xočet	
	on	what.sort.F	Vas'a	wants	
	čtoby	Pet'a	posmotrel	kartinu?	
	conj	Pet'a	looked.at	painting.F	
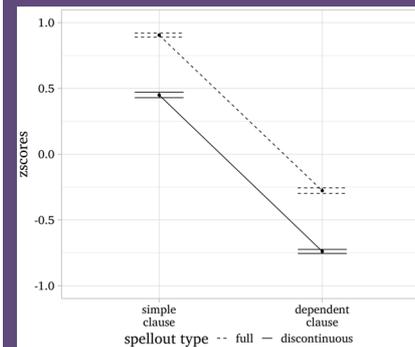
Results:
– The lower ratings for DS were expected (cf. Nunes (1999)),
– But no superadditivity effect in DS + dependent clause (*differences-in-differences score* = 0.007).
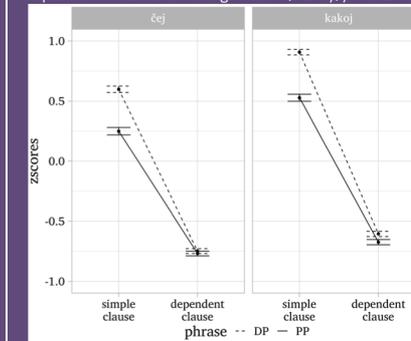
5. Experiment 3: PP vs DP

- Hypothesis: if split DPs and split PPs are formed with the same mechanism, the patterns will be the same for both of them
- 2 x 2 AJ experiment (1–7 Likert scale)
- clause structure (simple / dependent)
- XP type (DP / PP)
+ controlled variable *wh*-word (*kakoj* / *čej*)

a.	Čju	Pet'a	uvidel	kartinu?
	whose.F	Pet'a	saw	painting.F
b.	Na	čju	Pet'a	posmotrel kartinu?
	on	whose.F	Pet'a	looked.at painting.F
c.	Čju	Vas'a	xočet,	čtoby Pet'a
	whose.F	Vas'a	wants	conj Pet'a
	uvidel	kartinu?		
	saw	painting.F		
d.	Na	čju	Vas'a	xočet,
	on	whose.F	Vas'a	wants
	čtoby	Pet'a	posmotrel	kartinu?
	conj	Pet'a	looked.at	painting.F

Results: according to two-way ANOVA both the XP type ($F(1,3942) = 134.97$, $p < .0005$), clause structure ($F(1,3942) = 5207.77$, $p < .0005$) and their interaction ($F(1,3942) = 82.75$, $p < .0005$) are statistically significant. The difference between XP types in dependent clauses is not significant (Tukey, $p = 0.271$)

The elements *protiv sovetskoj* do not form a constituent so they cannot move to the left periphery via subextraction.
DS analysis:
– the lower copy of a moved constituent can be accessible for PF
– the constituent in question is spelled-out partly in its highest copy and partly in its lowest one.

No consensus on whether DS is possible for XPs moved out from a dependent clause to a matrix one in Russian:
– Sekerina (1997): Long-Distance Split Scrambling is forbidden
– Pereltsvaig (2008): counterexamples to Sekerina's constraint in Colloquial Russian
–> Experimental investigations on split constructions without double reading and on split DPs to compare

6. Discussion

- Experiment 2:
  – the ratings for DS + dependent clause are low but still higher than ungrammarical fillers
  – DS doesn't overload the parser irresistibly
  – DS and full spellout in a dependent clause are clearly distinguishable
- Experiment 3:
  – split PPs explained in terms of DS
  – in case of DPs – impossible to distinguish DS from subextraction (LBE)
  – split DPs are rated higher than split PPs –> the syntactic behavior of XPs is different in simple clauses but is the same in dependent clauses

Analysis:

- Why the PPs and DPs behave the same in dependent clauses?
  – all movements in general are slightly acceptable? but Exp2 results –> it is generally not true
  – both DPs and PPs undergo the same transformation
- If the second guess is true, the only possible interpretation for both XPs is discontinuous spellout
- BTW, object DPs in a dependent clause shouldn't be islands according to syntactic approaches
- In simple clauses - clear distinction between DPs and PPs. DPs are compatible with subextraction interpretation –> this interpretation is less penalized by the parser
- Can we really catch the LBE from XP in a dependent clause?

References

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