

# Salvation by deletion in Russian LBE\*

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## 1 Introduction

- The dominant approach to ellipsis remnants: move-and-delete (Ross 1969; Merchant 2001; 2004 i.a.). Take Merchant’s account of sluicing. Ellipsis is denoted by **a gray box**.
  - (1) a. I think he punched someone, but I don’t remember who.
    - b. [<sub>VP</sub> remember [<sub>CP</sub> who **he punched  $t_{who}$**  ]]
- Salvation by deletion: cases where the movement steps necessary for the move-and-delete approach are illicit without ellipsis.
  - (2) Violation of the RC island by sluicing
    - a. They hired someone who speaks a Balkan language – guess which!
    - b. \*Guess which Balkan language they hired someone who speaks \_\_\_\_!
- There are two positions to take re: salvation by deletion given that ellipsis involves non-pronounced syntactic structure (see the papers in Güneş & Lipták 2022 for state of the art).
  - Some constraints on movement are active only on PF and are thus voided by ellipsis (Chomsky 1972; Boeckx 2001; Lasnik 2001; Fox & Lasnik 2003; Merchant 2008; Griffiths & Lipták 2014; Mendes & Kandybowicz 2023 among many others)
  - There’s no such thing (Barros, Elliott & Thoms 2014, famously).
- The core idea of no-island-repair theorists: non-isomorphic sources.
- In other words, the deleted structure might not be a carbon copy of the clause over which the indefinite correlate scopes (Erteschik-Shir 1973; Vicente 2008; van Craenenbroeck 2010; Barros 2014; among others)

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- E.g., short sources.
  - (3) Guess which **he speaks** !
- E.g., cleft sources.
  - (4) They hired someone who speaks a Balkan language – guess which **it was \_\_\_\_** !
- NB! The issue isn't whether all putative cases of salvation by deletion are such (probably not—some arguments provided by Barros, Elliott & Thoms 2014 are compelling), the issue is whether there are **any** cases of island repair.
- This talk looks at examples of sluicing in Russian where the move-and-delete approach requires illicit subextraction. Example (5a) shows exceptional left branch extraction from a PP (see 5b).
  - (5) a. *Ja sidel v kakoj-to mašine no ja ne pomnju kakoj*  
 I sat in some.F.PREP.SG car.PREP.SG but I not remember which.F.PREP.SG  
 'I sat in some car but I don't remember which.'
  - b. *\*ja ne pomnju kakoj ja sidel v \_\_\_\_ mašine*  
 I not remember which.F.PREP.SG I sat in car  
 Int.: 'I sat in some car but I don't remember in which car I sat.'
- (6) **Today's claims:**
  - a. Non-isomorphic sources can't be used to approach the pattern. Instead, the pattern is easily understood under the Cyclic Linearization model of salvation by deletion (Fox & Pesetsky 2005), given independent evidence in favor of Cyclic Linearization from Russian left branch extraction (Davis 2021).
  - b. Cyclic Linearization leads to additional predictions re: salvation by deletion, when combined with the Scattered Deletion account of extraction from Russian DPs/PPs (Fanselow & Ćavar 2002; Pereltsvaig 2008; Bondarenko & Davis 2023).
  - c. Nevertheless, there is a principled restriction on such cases of ellipsis—what we call the **Sole Remnant generalization**—the exceptional remnant can't co-occur with pronounced PP-external clausemate material.
  - d. A fleshed out model of linearization (in the spirit of Fox & Pesetsky 2003 and Johnson 2020) captures the Sole Remnant Generalization—which is good since similar restrictions hold for preposition drop in other languages.
- This case study thus presents new evidence in favor of a cyclic linearization view of restrictions on movement and in favor of particular proposals about how linearization statements are generated.

## 2 Russian left branch sluicing out of PP

- Here is the basic pattern again. Russian, along with a variety of other languages, allows left branch extraction. However, LBE that crosses a PP boundary is out.

(7) a. LBE out of an NP is fine

*Krasnuju ja videl* [<sub>NP</sub> \_\_\_\_ *mašinu*]  
red.F.ACC.SG I saw car.ACC.SG  
'I saw a RED car.'

b. LBE that crosses a PP boundary is illicit

\**Krasnoj ja sidel* [<sub>PP</sub> *v* \_\_\_\_ *mašine*]  
red.F.PREP.SG I sat in car.PREP.SG  
Int.: 'I sat in a RED car.'

- This restriction is alleviated in sluicing contexts.

(8) a. Adjectival sluice that crosses a PP is possible

*Ja sidel v kakoj-to mašine no ja ne pomnju kakoj*  
I sat in some.F.PREP.SG car.PREP.SG but I not remember which.F.PREP.SG  
'I sat in some car but I don't remember in which.'

b. The elided clause cannot be pronounced

\**Ja sidel v kakoj-to mašine no ja ne pomnju kakoj ja*  
I sat in some.F.PREP.SG car.PREP.SG but I not remember which.F.PREP.SG I  
*sidel v \_\_\_\_ mašine*  
sat in car  
Int.: 'I sat in some car but I don't remember in which car I sat.'

- It's a problem for the move-and-delete approach to sluicing (Merchant 2001). A natural reaction (in the spirit of Barros, Elliott & Thoms 2014): argue that the ungrammatical sentence in (8b) is not the elided part of (8a). That doesn't work.

### 2.1 Non-isomorphc sources don't cut it

- The statement of the problem assumes that the preposition is present in the elided clause. One may challenge this assumption by relying on a cleft source without a preposition (again, in the spirit of Barros, Elliott & Thoms 2014; existing work has applied this logic to cases of preposition drop, see Section 2.4).

(9) I sat in some car but I don't remember which that was \_\_\_\_ car.

- In Russian, the subject of a copular clause must be, well, nominative.

(10) *eta mašina krasnaja*  
 this.F.NOM.SG car.NOM.SG red.F.NOM.SG  
 ‘This car is red.’

- But also: the predicative part of a copular clause might be instrumental.

(11) *eta mašina byla krasnoj*  
 this.F.NOM.SG car.NOM.SG was red.F.INST.SG  
 ‘This car was red.’

- **Argument 1:** case connectivity. The crucial examples are impossible when the remnant bears a case different from the case assigned by the preposition. Example (12b) rules out an effect of the syncretism between INST and PREP found with some declension classes in Russian.

(12) a. *Ja sidel v kakoj-to mašine no ja ne pomnju kakoj* /  
 I sat in some.F.PREP.SG car.PREP.SG but I not remember which.F.PREP.SG  
 \**kakaja*  
 which.F.NOM.SG

‘I sat in some car but I don’t remember in which.’

b. *Ja sidel v kakom-to vagone no ja ne pomnju*  
 I sat in some.M.PREP.SG train.car.PREP.SG but I not remember  
*kakom* / \**kakoj* / \**kakim*  
 which.M.PREP.SG which.M.NOM.SG which.M.INST.SG

‘I sat in some train car but I don’t remember in which.’

- Suppose there is a way to enforce case-matching (see Barros, Elliott & Thoms 2014; Barros & Vicente 2016; Thoms 2019 for suggestions). Then, **Argument 2:** a non-isomorphic source predicts unrestricted P-stranding under ellipsis in Russian: if a non-isomorphic source is possible for subextraction from a DP, it should be possible for DP extraction too. That is not borne out (Ionova 2019).

(13) a. *On govoril mne o kakoj-to mašine no ja ne pomnju*  
 he told me about some.F.PREP.SG car.PREP.SG but I not remember  
*kakoj*  
 which.F.PREP.SG

‘He told be about some car but I don’t remember about which.’

- b. \**On govoril mne o čem-to no ja ne pomnju čom*  
 he told me about something.PREP.SG but I not remember what.PREP.SG  
 Int.: ‘He told be about something but I don’t remember about what.’

- A sidenote: availability of P-stranding is prosody-dependent (Ionova 2019). It also seems to be dependent on the type of the *wh*-element: complex *wh*-phrases allow for P-stranding under sluicing much easier than simple ones.

- (14) a. *Ona sidit okolo čjego-to kabineta no ja ne pomnju čjego*  
 She sits near somenone.GEN.SG office but I not remember whose.GEN.SG  
 ‘She is sitting near someone’s office but I don’t remember near whose office.’

- b. ?*Ja ostavil čemodan okolo čego-to no ja ne pomnju čego*  
 I left suitcase near something.GEN.SG but I not remember what.GEN.SG  
 ‘I left my suitcase near something but I don’t remember near what.’

- Another sidenote: the analysis to come also predicts unrestricted P-stranding. However, it involves a preposition in the elided structure, making it possible for its properties to influence availability of sluicing. An analysis based on non-isomorphic source that lacks a preposition entirely just cannot take preposition-specific factors into account.
- **Argument 3:** Merchant (2001) has argued that clefts are not possible with *else*-modification, whereas sluices are. Consider (15a) and (15b), both of which are acceptable. However, while (15a) can be reduced to pseudo-sluicing with a cleft source (due to the syncretism effect, van Craenenbroeck 2010), (15b) prohibits such an option due to the presence of the modifier *else*.

- (15) a. *Ja znaju chto Petja ezdit na kakoj-to mašine no ja ne pomnju*  
 I know that Petja drives on some.F.PREP.SG car but I not remember  
*kakoj*  
 which.F.PREP.SG

‘I know that Petja drives some car, but I don’t remember which.’

- b. *Ja znaju chto Petja ezdit na krasnoj mašine no ja ne pomnju*  
 I know that Petja drives on red.F.PREP.SG car but I not remember  
*kakoj ešo*  
 which.F.PREP.SG else

‘I know that Petja drives a red car, but I don’t remember which else.’

- **Intermediate conclusion:** while clefting may indeed be a possible source for sluicing in some cases, it is not enough; sometimes we deal with genuine cases of salvation by deletion.

## 2.2 Salvation by deletion. How?

- I favor Cyclic Linearization (CL, Fox & Pesetsky 2003; Fox & Pesetsky 2005; Ko 2014; Davis 2021 among others). Its **core idea**: successive-cyclicity is enforced by linearization.

(16) Non-successive-cyclic movement leads to contradiction

a. A non-successive-cyclic derivation:  $[\text{Phase}_2 \text{ Y Z } [\text{Phase}_1 \text{ X } t_Y ]]$

b. Linearization statements:

Phase<sub>1</sub>: X « Y

Phase<sub>2</sub>: Y « Z « Phase<sub>1</sub> ⇒ Y « Z « X

(17) Successive-cyclic movement doesn't

a. A successive-cyclic derivation:  $[\text{Phase}_2 \text{ Y Z } [\text{Phase}_1 t_Y \text{ X } t_Y ]]$

b. Linearization statements:

Phase<sub>1</sub>: Y « X

Phase<sub>2</sub>: Y « Z « Phase<sub>1</sub> ⇒ Y « Z « X

- A CL-compliant account of movement barriers: lack of an intermediate landing site. For our purposes: the lack of an Adj « P « N order inside the PP leads to the impossibility of Adj « P « N order on the clause level.

(18) a. Adj « P is unavailable inside PP

\**Ja sidel* [<sub>PP</sub> *krasnoj* v \_\_\_\_ *mašine*]  
 I sat red.F.PREP.SG in car.PREP.SG  
 Int.: 'I sat in RED car.'

b. LBE from a PP is unavailable

\**kakoj* *ja sidel* v \_\_\_\_ *mašine*?  
 which.F.PREP.SG I sat in car.PREP.SG  
 Int.: 'In which car did I sit?'

c. LBE out of PP is banned due to a linearization conflict

PP phase: P « Adj « N

CP phase: Adj « ... « P « N

- Cyclic Linearization makes a **crucial prediction**: if some of the conflicting linearization statements are removed, ungrammaticality disappears. That's what sluicing achieves: ordering relative to P and N is irrelevant since P and N are not pronounced.

(19) LBE out of PP is OK if P and N never pronounced

PP phase: P « Adj « N

CP phase: Adj « ... « P « N

- See Sections 2.4 and 3 for discussion of other types of ellipsis.

## 2.3 Extending the account

- Previous discussion assumed that left branch extraction is *bona fide* movement of the modifier. However, there is plenty of evidence against that. For example, LBE licenses parasitic gaps like movement of the whole nominal phrase (Bondarenko & Davis 2023).

(20) *Kakoj<sub>2</sub> Vasja voznenavidel* [    <sub>2</sub> *podarok*]<sub>1</sub> [*ne obnaruziv PG<sub>1</sub> pod jolkoj*]?  
 what Vasja came.to.hate gift not discover.CVB under pine.tree  
 ‘Which present did Vanja come to hate, not finding (it) under the New Year tree?’  
 (ibid. ex.13)

- **An alternative:** Scattered Deletion (SD). The idea is that the whole nominal phrase undergoes movement and the copies are partially pronounced (Fanselow & Ćavar 2002; Pereltsvaig 2008).

(21) [*kakoj* *podarok*]<sub>1</sub> *Vasja voznenavidel* [*kakoj* *podarok*]<sub>1</sub> [*ne obnaruziv PG<sub>1</sub>*  
 what gift Vasja came.to.hate what gift not discover.CVB under  
*pod jolkoj*?  
 pine.tree  
 ‘Which present did Vanja come to hate, not finding (it) under the New Year tree?’  
 (ibid. ex.13)

- A criticism of Scattered Deletion is its unrestricted nature. Cyclic Linearization helps with that (as recognized by Davis 2021: 195).

(22) Only leftmost modifier might be extracted

a. *Oleg prodal* {*svoi gonočnye mašiny* / \**gonočnye svoi mašini*}  
 Oleg sold self.ACC.PL race.ACC.PL cars race.ACC.PL self.ACC.PL cars  
 ‘Oleg sold his race cars.’

b. \*<sub>[NP</sub> *svoi gonočnye mašini*] *Oleg prodal* [<sub>NP</sub> *svoi gonočnye*  
 self.ACC.PL race.ACC.PL cars Oleg sold self.ACC.PL race.ACC.PL  
*mašini*]  
 cars  
 Int.: ‘Oleg sold his RACE cars.’

- c. The problem:  
 NP phase: SELF » Adj  
 CP phase: Adj » SELF

- The Scattered Deletion account is also extended to extraction from prepositional phrases. Consider the P-first generalization of Sekerina (1997): preposition must be pronounced in the highest copy.

(23) a. [<sub>PP</sub> *Pered pervym vagonom*] *on stoit* [<sub>PP</sub> *pered pervym vagonom*]  
 before first carriage he stands before first carriage  
 ‘He stands before the FIRST carriage.’

b. \* [<sub>PP</sub> *Pered pervym vagonom*] *on stoit* [<sub>PP</sub> *pered pervym vagonom*]  
 before first carriage he stands before first carriage  
 Int.: ‘He stands before the FIRST carriage.’

- c. The problem:  
 PP phase: P » Num » N  
 CP phase: Num » N » P

- Finally, our analysis predicts that any restrictions on extraction from Russian nominal / prepositional phrases are alleviated by sluicing / fragments (insofar as they’re pragmatically compatible with sluicing / fragments). This prediction is borne out, as evidenced by the ban on extraction of genitive complements of Russian nouns (Lyutikova 2008).

(24) a. \**Čego on kupil [NP korobku \_\_\_\_]*?  
 what.GEN he bought box  
 Int: ‘What did he buy a box of?’

b. \* [*Korobku čego*] *on kupil [NP korobku čego]*?  
 what.GEN he bought box what.GEN  
 Int: ‘What did he buy a box of?’

c. *On kupil korobku čego-to no ja ne pomnju čego*  
 he bought box something.GEN but I not remember what.GEN  
 ‘He bought a box of something but I don’t remember of what.’

- **Take-away:** Cyclic Linearization both constrains a Scattered Deletion approach to Russian LBE and makes novel predictions regarding salvation by deletion.

## 2.4 An overgeneration issue

- At the current level of detail, the account predicts that any ellipsis configuration gives rise to the effect — insofar as nodes found in the conflicting linearization statements are deleted, left branch remnant from a PP should be fine under sluicing.

- That is false. Multiple sluicing is incompatible with such island repair.

(25) a. *Ja sbil kogo-to na kakoj-to mašine no ja ne pomnju čej \*(na)*  
 I hit someone on some.PREP.F.SG car but I not remember who on  
*kakoj*  
 which.PREP.F.SG

Int: ‘I hit someone on some car but I don’t remember whom I hit on which car.’

b. *On menja vstretil togda u kakogo-to vokzala s kakoj-to*  
 He me met then near some.M.GEN.SG terminal with some.F.INSTR.SG  
*damoj, no ja zabył \*(u) kakogo s kakoj*  
 dame but I forgot near which.M.GEN.SG with which.F.INSTR.SG

c. *On menja vstretil togda u kakogo-to vokzala s kakoj-to*  
 He me met then near some.M.GEN.SG terminal with some.F.INSTR.SG  
*damoj, no ja zabył u kakogo \*(s) kakoj*  
 dame but I forgot near which.M.GEN.SG with which.F.INSTR.SG

‘He met me near some terminal with some dame but I forgot near which terminal and with what dame.’

- Ellipsis that leaves other remnants in the clause (such as polarity ellipsis or Aux-VP ellipsis) is out as well.

(26) *Ya na gumanitarnuyu programmy postupať budu, a \*(na) inženernuju*  
 I on humanities programm apply AUX.FUT.1SG but on engineer  
*{net / ne budu}*  
 not not AUX.FUT.1SG

‘I will be applying to a humanities program but I will not be applying to an engineering program.’

- There is, however, a unifying feature: the remnant cannot occur with overt PP-external material. Let’s call this the **Sole Remnant Generalization**.
- Interestingly, the Sole Remnant Generalization seems to be robust. First, it holds of other cases where Russian allows preposition drop.

- (27) a. *Ja podralsja s nim iz-za čego-to no ne pomnju (iz-za) čego*  
 I fought with him over something but not remember over what  
 ‘I fought with him over something but I don’t remember what’
- b. *Ja podralsja iz-za čego-to s kem-to no ne pomnju \*(iz-za) čego*  
 I fought with him over something but not remember over what  
*s kem*  
 with whom  
 ‘I fought with someone over something but I don’t remember with whom and over what’

- More importantly, it holds for preposition drop cross-linguistically (exemplified for Spanish on the basis of Rodrigues, Nevins & Vicente 2009, but see Rodrigues, Nevins & Vicente 2009 for Brazilian Portuguese, Szczegielniak 2006 for Polish, Stjepanović 2008, 2012 for Serbo-Croatian).

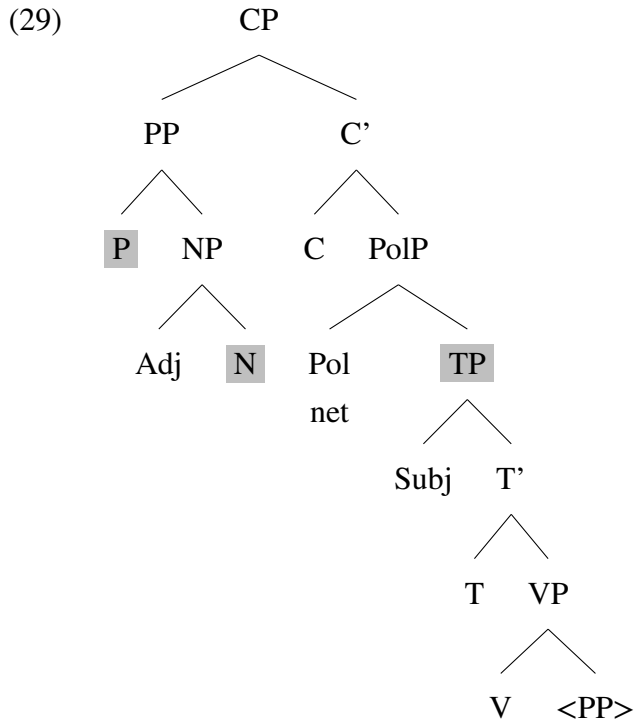
(28) Spanish

- a. No P-stranding in Spanish (Rodrigues, Nevins & Vicente 2009: ex. 4a)  
*\*Que chica ha hablado Juan con?*  
 which girl has talked Juan with  
 Int.: ‘Which girl has Juan talked with?’
- b. P-drop in Spanish (Rodrigues, Nevins & Vicente 2009: ex. 4b)  
*Juan ha hablado con una chica, pero no sé cuál*  
 Juan has talked with a girl but not know which  
 ‘Juan has talked with a girl but I don’t know which.’
- c. No multiple P-drop (Rodrigues, Nevins & Vicente 2009: ex. 4b)  
*Ella habló con alguien sobre algo pero no sé \*(con) quién*  
 she talked with someone about something but not know with whom  
*\*(sobre) qué*  
 about what  
 ‘She talked with someone about something, but I don’t know with whom and about what.’

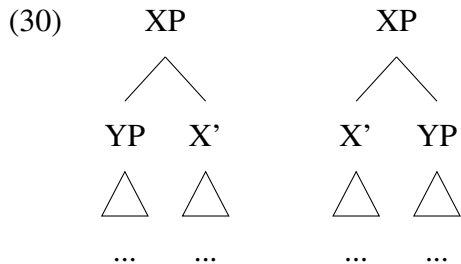
- Some of the cited authors suggest that the effect is related to cleft sources. As we have shown, however, cleft sources do not suffice for Russian. So if we account for the Sole Remnant Generalization we open the door for a re-appraisal of such effects in other languages as well.

### 3 An account of the sole remnant generalization

- Consider a structure with polarity ellipsis



- Something there leads to ungrammaticality. Our idea: Adj cannot be ordered relative to Pol. Namely, ordering of Adj relative to Pol is mediated by PP, which fails when P is not pronounced.
- However, this intuition is quite hard to capture in existing models of linearization!
- Many models are based on the idea that linearization of (30) is based on  $d(YP) < d(X')$  or  $d(X') < d(YP)$  where  $d(X)$  is the set of terminals dominated by  $X$  (see Kayne 1994; Fox & Pesetsky 2005; Bachrach & Katzir 2009 and 2017; Johnson 2020 a.o.).



- Such accounts rule out Scattered Deletion on principled grounds — no good for our purposes.
- Another option: generate the linearization statements for both positions and then filter out the conflicts (this is the option we implied in section 2; see also Malanoski 2024).

(31) Filtering out conflicts with the PP-internal P<Adj<N ordering

Scattered Deletion:	⇒	Elide:
<div style="display: flex; justify-content: space-around;"> <span style="background-color: #cccccc; padding: 2px;">P &lt; V</span> <span>Adj &lt; V</span> <span style="background-color: #cccccc; padding: 2px;">N &lt; V</span> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <span>V &lt; P</span> <span style="background-color: #cccccc; padding: 2px;">V &lt; Adj</span> <span>V &lt; N</span> </div>		<div style="display: flex; justify-content: space-around;"> <span style="background-color: #cccccc; padding: 2px;">P &lt; V</span> <span style="background-color: #cccccc; padding: 2px;">Adj &lt; V</span> <span style="background-color: #cccccc; padding: 2px;">N &lt; V</span> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <span style="background-color: #cccccc; padding: 2px;">V &lt; P</span> <span style="background-color: #cccccc; padding: 2px;">V &lt; Adj</span> <span style="background-color: #cccccc; padding: 2px;">V &lt; N</span> </div>

- This is a more fleshed out variant of the approach that led to overgeneration to begin with.
- Here, we propose a modification of Johnson’s (2020) account that allows for Scattered Deletion.

### 3.1 The linearization procedure

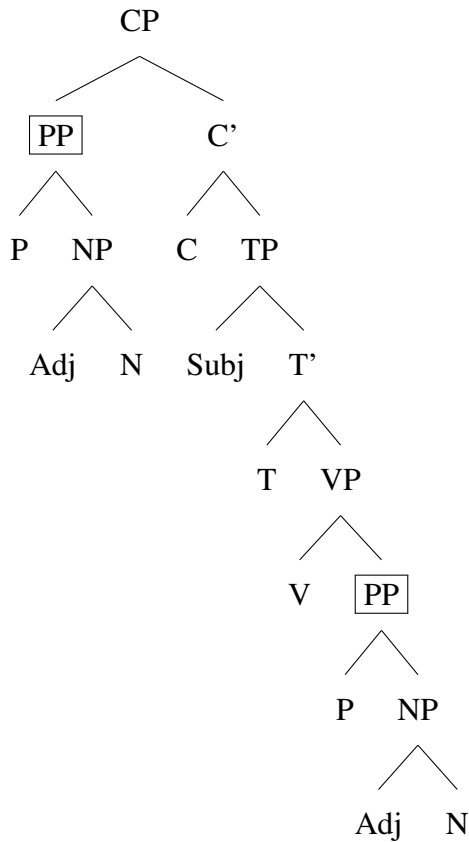
- Core innovation of Johnson’s is relying on paths from terminal nodes to the root node.

(32) Path from a terminal (cf. Johnson 2020)

Each terminal  $\alpha$  is associated with a sequence of syntactic objects  $\langle X_0, X_1, X_2, \dots, X_n \rangle$  where  $X_0$  is  $\alpha$ ,  $X_1$  is a mother of  $\alpha$ ,  $X_n$  is the root node, and  $X_{i+1}$  is a mother of  $X_i$

- Consider a PP-movement structure—all terminals dominated by PP have two paths to the root.

(33) a. Structure



b. Paths

- $p_1(P) = \langle P, PP, VP, T', TP, C', CP \rangle$
- $p_2(P) = \langle P, PP, CP \rangle$
- $p_1(Adj) = \langle Adj, NP, PP, VP, T', TP, C', CP \rangle$
- $p_2(Adj) = \langle Adj, NP, PP, CP \rangle$
- $p_1(N) = \langle N, NP, PP, VP, T', TP, C', CP \rangle$
- $p_2(N) = \langle N, NP, PP, CP \rangle$
- $p(V) = \langle V, VP, T', TP, C', CP \rangle$
- $p(T) = \langle T, T', TP, C', CP \rangle$
- $p(\text{Subj}) = \langle \text{Subj}, TP, C', CP \rangle$
- $p(C) = \langle C, C', CP \rangle$

- Each path is associated with a copy. Let’s introduce a notion of a copy choice. In Johnson’s system, discordant copy choices are ruled out—we’ll find a way to avoid that.

- (34) Copy choice
- a. A copy choice is  $\Pi$ , a subset of paths from terminal nodes to the root node
  - b. Unique totality (modified from Johnson's totality)  
A copy choice  $\Pi$  should contain a single path for every terminal node.
- (35) Path correspondence axiom (Johnson's 2020 version)
- a.  $d(X)$  is a set of terminal nodes  $\alpha$  s.t.  $X \in \text{PATH}(\alpha)$
  - b. If  $p$ , a path, is in  $\Pi$ , then for every  $X \in p$  and  $X$ 's sister  $Y$ 
    - either  $\alpha < \beta$  is in the linearization for all  $\alpha \in d(X)$  and for all  $\beta \in d(Y)$
    - or  $\beta < \alpha$  is in the linearization for all  $\alpha \in d(X)$  and for all  $\beta \in d(Y)$
- Consider  $V$  and the lower copy of  $PP$ . By PCA,  $V$  should either precede or follow all terminals that have  $PP$  in their path. Thus,  $V$  either precedes both  $P$ ,  $\text{Adj}$ , and  $N$ , or follows all of them. Scattered deletion is out. However, it's easy to modify Johnson's proposal: following Fox and Pesetsky (2003), linearization statements are only made for items that share a mother.
- (36) Fox and Pesetsky's (2003) laws of precedence
- Given two sisters,  $X$  and  $Y$ , and their mother  $Z$ ,  $X <_Z Y$  if
- a.  $X$  is a specifier of  $Y$
  - b.  $Y$  is a complement of  $X$
  - c.  $X$  is an adjunct of  $Y$
- (37) Path correspondence axiom (our version)
- a. If  $Y$  imm. dominates  $X$ ,  $d(X, Y)$  is a set of terminals  $\alpha$  s.t.  $X \in \text{PATH}(\alpha)$ ,  $Y \in \text{PATH}(\alpha)$   
*informally*, it's a set of all nodes that have the  $\langle XP, YP \rangle$  sequence in their path.
  - b. If a path  $p \in \Pi$ , then for every  $X \in p$ ,  
for all  $\alpha \in d(X, Z)$  and for all  $\beta \in d(Y, Z)$   
where  $Y$  is  $X$ 's sister and  $Z$  is the mother of  $X$  and  $Y$ 
    - If  $X <_{ZP} Y$ , then  $\alpha < \beta$
    - If  $Y <_{ZP} X$ , then  $\beta < \alpha$*informally*, ordering statements between non-terminals  $X$  and  $Y$  sharing a mother  $Z$  matter only for terminals which have the  $\langle X, Z \rangle$  sequence in their chosen path
- Now, Scattered Deletion is possible (note: we are aware that it's not possible in every language; see Conclusions). Essentially, an ordering like  $V < PP$  only orders  $V$  relative to those terminals inside  $PP$  which are pronounced in the lower copy (which have  $\langle PP, VP \rangle$  in their path).

- (38) a. Chosen paths:
- PATH(P) = ⟨P, PP, CP⟩ (pronounced high)
- PATH(Adj) = ⟨Adj, NP, PP, CP⟩ (pronounced high)
- PATH(N) = ⟨N, NP, PP, VP, T', TP, C', CP⟩ (pronounced low)
- b. Laws of precedence:
- Adj <<sub>NP</sub> N   P <<sub>PP</sub> NP   PP <<sub>CP</sub> C'   C <<sub>C'</sub> TP   Subj <<sub>TP</sub> T'   T <<sub>T'</sub> VP   V <<sub>VP</sub> PP
- c. Path correspondence axiom results
- P < C   Adj < C   C < Subj   Subj < T   T < V   V < N
- P < Subj   Adj < Subj   C < T   Subj < V   T < N
- P < T   Adj < T   C < V   Subj < N
- P < V   Adj < V   C < N
- P < N   Adj < N
- P < Adj
- d. Resulting linear order
- P < Adj < C < Subj < T < V < N

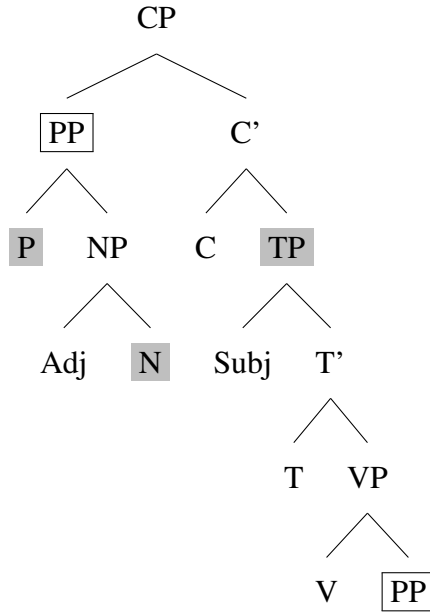
- Note: there are two steps to linearization under this proposal.
  - Step 1: establishing laws of precedence.
  - Step 2: establishing terminal precedence by path correspondence axiom.
- Ellipsis now can happen between steps 1 and 2.

(39) What ellipsis of XP does:

- a. Mark for non-pronunciation every terminal  $\alpha$  s.t.  $XP \in \text{PATH}(\alpha)$
- b. Delete all  $X <_Z Y$  s.t.  $X$  or  $Y$  is a projection of a terminal marked for non-pronunciation.

- Consider structure with sluicing. The assumption: zero-terminals don't have to be linearized (alternative: sluicing is C'-deletion).

(40) a.



b. Chosen paths

$\text{PATH}(P) = \langle P, PP, VP, T', TP, C', CP \rangle$

$\text{PATH}(N) = \langle N, NP, PP, VP, T', TP, C', CP \rangle$

$\text{PATH}(\text{Adj}) = \langle \text{Adj}, NP, PP, CP \rangle$

c. Laws of precedence:

$PP <_{CP} C'$      $C <_{C'} TP$      $\text{Subj} <_{TP} T'$

$T <_{T'} VP$      $V <_{VP} PP$

$P <_{PP} NP$      $\text{Adj} <_{NP} N$

d. LoP after ellipsis:

$PP <_{CP} C'$      $C <_{C'} TP$      $\text{Subj} <_{TP} T'$

$T <_{T'} VP$      $V <_{VP} PP$

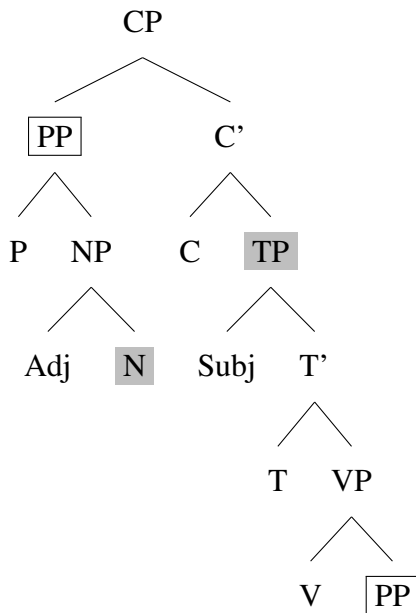
$P <_{PP} NP$      $\text{Adj} <_{NP} N$

e. After PCA

Adj (on its own);    C (on its own, null)

- Note: Cyclic Linearization plays a role if P is not elided.

(41) a.



b. Chosen paths

$\text{PATH}(P) = \langle P, PP, CP \rangle$

$\text{PATH}(N) = \langle N, NP, PP, VP, T', TP, C', CP \rangle$

$\text{PATH}(\text{Adj}) = \langle \text{Adj}, NP, PP, CP \rangle$

c. Laws of precedence:

$PP <_{CP} C'$      $C <_{C'} TP$      $\text{Subj} <_{TP} T'$

$T <_{T'} VP$      $V <_{VP} PP$

$P <_{PP} NP$      $\text{Adj} <_{NP} N$

d. LoP after ellipsis:

$PP <_{CP} C'$      $C <_{C'} TP$      $\text{Subj} <_{TP} T'$

$T <_{T'} VP$      $V <_{VP} PP$

$P <_{PP} NP$      $\text{Adj} <_{NP} N$

e. PP-internal linearization

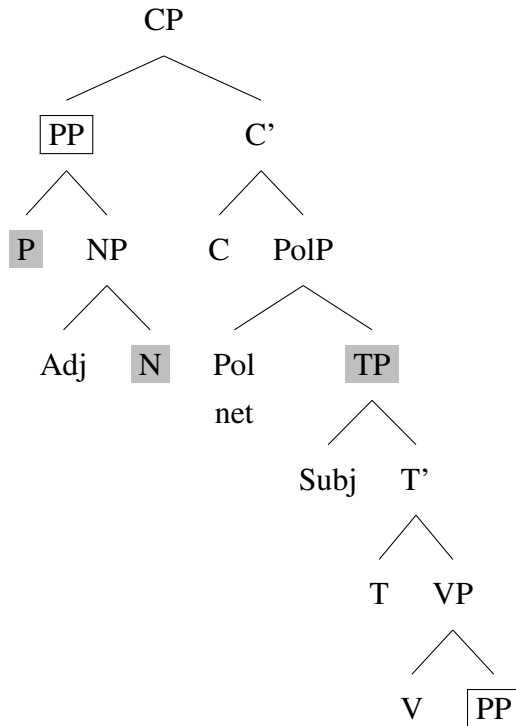
$P < \text{Adj} < N$

f. After PCA

$P < \text{Adj}; P < C, \text{Adj} < C$

- Consider structure with polarity ellipsis: overt Pol can't be linearized relative to Adj

(42) a.



b. Chosen paths

PATH(P) = ⟨P, PP, VP, T', TP, PolP, C', CP⟩

PATH(N) = ⟨N, NP, PP, VP, T', TP, PolP, C', CP⟩

PATH(Adj) = ⟨Adj, NP, PP, CP⟩

c. Laws of precedence:

PP <<sub>CP</sub> C'    C <<sub>C'</sub> PolP    Pol <<sub>C'</sub> TP

Subj <<sub>TP</sub> T'    T <<sub>T'</sub> VP    V <<sub>VP</sub> PP

P <<sub>PP</sub> NP    Adj <<sub>NP</sub> N

d. LoP after ellipsis:

PP <<sub>CP</sub> C'    C <<sub>C'</sub> PolP    Pol <<sub>C'</sub> TP

Subj <<sub>TP</sub> T'    T <<sub>T'</sub> VP    V <<sub>VP</sub> PP

P <<sub>PP</sub> NP    Adj <<sub>NP</sub> N

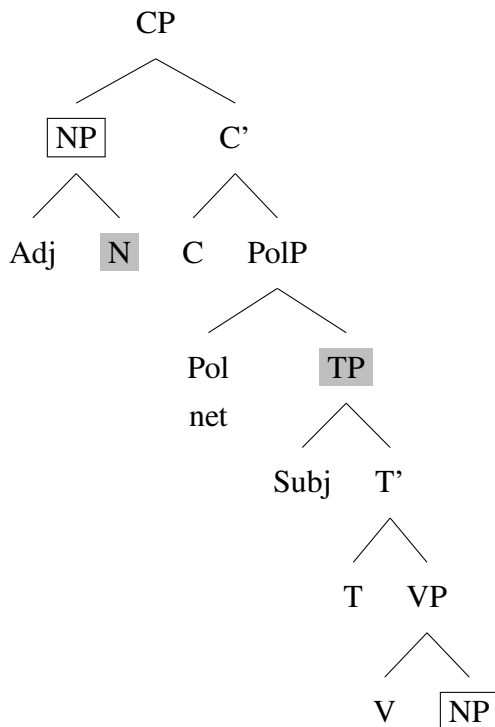
e. After PCA

Adj (on its own);    C < Pol

f. Conflict: Adj >< Pol

- Same logic applies to multiple sluicing and Aux-VP ellipsis: Adj can't be linearized if P is elided.
- Here's an issue: if [Adj N] sequences are headed by N, then LBE sluices from NPs should be impossible in multiple sluicing / polarity ellipsis / Aux-VPE.

(43) a.



b. Chosen paths

PATH(N) = ⟨N, NP, VP, T', TP, PolP, C', CP⟩

PATH(Adj) = ⟨Adj, NP, CP⟩

c. Laws of precedence:

NP <<sub>CP</sub> C'    C <<sub>C'</sub> PolP    Pol <<sub>C'</sub> TP

Subj <<sub>TP</sub> T'    T <<sub>T'</sub> VP    V <<sub>VP</sub> NP

Adj <<sub>NP</sub> N

d. LoP after ellipsis:

NP <<sub>CP</sub> C'    C <<sub>C'</sub> PolP    Pol <<sub>C'</sub> TP

Subj <<sub>TP</sub> T'    T <<sub>T'</sub> VP    V <<sub>VP</sub> NP

Adj <<sub>NP</sub> N

e. After PCA

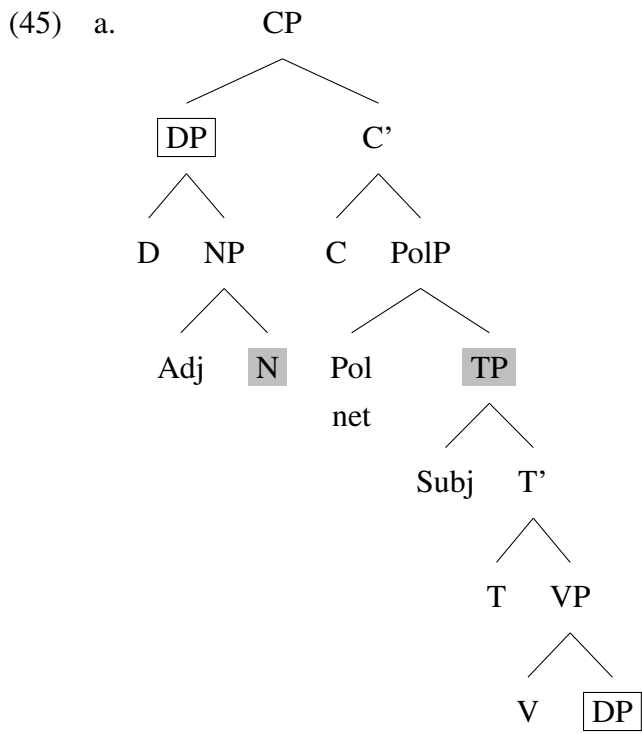
Adj (on its own);    C < Pol

f. Conflict: Adj >< Pol

- But such remnants are possible in those environments.

- (44) a. *Ja videl kakuju-to devočku gde-to tam no ne pomnju kakuju gde*  
 I saw some girl somewhere there but not remember which where  
 'I saw some girl somewhere there but I don't remember which girl and where.'
- b. *Ja svetloe pivo budu pitj, a temnoje {net / ne budu}*  
 I light beer will drink but dark not not will  
 'I will drink light beer, but dark beer, I won't.'

- Therefore, the head of the projection in Spec,CP is not elided. A clear candidate: the zero D in Russian DPs. Clearly, this change does not influence the previous results that rely on effects of eliding P.



- b. Chosen paths  
 PATH(D) = ⟨D, DP, CP⟩  
 PATH(N) = ⟨N, NP, DP, VP, T', TP, PolP, C', CP⟩  
 PATH(Adj) = ⟨Adj, NP, DP, CP⟩
- c. Laws of precedence:  
 DP <<sub>CP</sub> C'    C <<sub>C'</sub> PolP    Pol <<sub>C'</sub> TP  
 Subj <<sub>TP</sub> T'    T <<sub>T'</sub> VP    V <<sub>VP</sub> DP  
 D <<sub>DP</sub> NP    Adj <<sub>NP</sub> N
- d. LoP after ellipsis:  
 DP <<sub>CP</sub> C'    C <<sub>C'</sub> PolP    Pol <<sub>C'</sub> TP  
 Subj <<sub>TP</sub> T'    T <<sub>T'</sub> VP    V <<sub>VP</sub> PP  
 D <<sub>DP</sub> NP    Adj <<sub>NP</sub> N
- e. DP-internal linearization  
 D < Adj < N
- f. After PCA  
 D < Adj < C < Pol

- Summing up: the sole remnant generalization follows from a two-step model of linearization where ellipsis applies in between steps.
  - Step 1: (non-)terminal sisters are ordered
  - Step 2: total ordering of terminals is derived from order of sisters
- An indirect argument in favor of a zero D head in Russian nominal phrases comes as a by-product.

## 4 Conclusion and open problems

- This talk has argued in favor of a Cyclic Linearization model of salvation by deletion in exceptional left branch remnants in Russian clausal ellipsis.
- A somewhat novel model for linearization (but frankly, a mix of Fox & Pesetsky 2003 and Johnson 2020) accounts for restriction on such remnants: scattered deletion results in problems if the head of the scattered phrase is elided.
- A big problem: P-stranding overgeneration. As it stands, our analysis predicts unrestricted preposition drop in Russian sluicing. However, it is known to be prosody-sensitive (Ionova 2019)

- (46) a. \**On govoril mne o čem-to no ja ne pomniju čom*  
he told me about something.PREP.SG but I not remember what.PREP.SG  
Int.: ‘He told be about something but I don’t remember about what.’
- b. *Ja ostavil čemodan okolo čego-to no ja ne pomniju čego*  
I left suitcase near something.GEN.SG but I not remember what.GEN.SG  
‘I left my suitcase near something but I don’t remember near what.’

- Another overgeneration issue: scattered deletion is impossible in, for example, English (whereas our linearization model freely allows it)
- Both are a question of contiguity: there is both cross-linguistic and lexical variation regarding what which items must be adjacent to.
- For now, we leave the question open. We expect a theory like Richards (2016) to provide additional empirical bite.

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