

Linearization asymmetries in Russian left branch extraction*

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Abstract: While Russian syntax usually permits both extraction from subjects and scrambling of objects, we observe that these movement processes cannot co-occur. We argue following work on similar restrictions in other languages that this and related patterns emerge from a Cyclic Linearization theory of phase spell-out, in combination with the concept that vP is a phase, and a ban on movement within phrase edges. This investigation of Russian also reveals some additional factors that allow the expected constraints on scrambling to be circumvented.

1 Introduction

In this paper, we examine some limitations on movement in Russian. We focus on patterns involving left branch extraction (LBE), which is sub-extraction of an element originating in the left edge of the nominal phrase, such as an adjective, demonstrative, or possessor. LBE is normally possible from both subjects and objects:¹

- (1) a. **LBE from subject**
Èta_k včera [t_k devočka] pogladila kota
this yesterday girl stroked cat
‘This girl stroked the cat yesterday.’
b. **LBE from object**
Ètogo_k devočka pogladila [t_k kota]
this girl stroked cat
‘The girl stroked this cat.’

While Russian syntax typically permits a wide variety of word order manipulating movement operations such as LBE, certain instances of movement in Russian do not readily co-occur. The primary puzzle we focus on here is the following. While Russian typically allows an object to scramble over the subject (2a), if this occurs, then LBE from the subject is not possible (2b):

- (2) a. **Object scrambling**
Kota_k èta devočka pogladila t_k
cat this girl stroked
‘This girl stroked the cat.’
b. **No object scrambling + LBE from subject**
* Èta_j kota_k [t_j devočka] pogladila t_k
this cat girl stroked
‘This girl stroked the cat.’

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¹Some forms of LBE are more marked than others, for instance demonstrative and quantifier LBE. We begin our discussion with examples of demonstrative LBE, since for this sort of LBE the asymmetries examined in this paper are especially robust.

Essentially the same asymmetry, shown in (3) below, is known to hold in Korean and Japanese (Saito, 1985; Miyagawa, 1989; Ko, 2007, 2014). Since these languages are unrelated to Russian, this asymmetry is likely not a language-particular oddity, but rather a fact that emerges from the general properties of natural language.

(3) **Object scrambling blocks extraction from subject in Korean (same holds for Japanese)**

a. **Sub-extraction from object across subject**

Maykcwu-lul_k John-i [t_k sey-pyeng] masiessta

Beer-ACC John-NOM [3-bottle] drank

‘John drank three bottles of beer.’

(Korean, Ko 2014, pg. 31, ex. 1b)

b. **No sub-extraction from subject across scrambled object**

* Haksayng-tul-i_k maykcwu-lul_j [t_k sey-myeng] t_j masi-ess-ta

Students-PL-NOM beer-ACC 3-people drink-PAST-DECL

‘Three students drank beer.’

(Korean, Ko 2014, pg. 32, ex. 7)

We extend to Russian the account for such asymmetries in Korean/Japanese proposed by Ko (2007, 2014), which has the following components. #1: The Cyclic Linearization theory (CL; Fox & Pesetsky, 2005a,b, a.o.), for which spell-out linearizes entire phases at the same time, and the relative linear ordering established by spell-out must be preserved for the rest of the derivation. #2: The phase-hood of vP (Chomsky, 2000, 2001, 2008, a.o.). #3: A ban on movement from one specifier to another of the same phrase (Ko, 2007, 2014, a.o.). As we’ll see, these three concepts accurately predict the unacceptability of Russian sentences like (2b).

However, sentences like (2b) do succeed in two other circumstances in Russian, which thus must be analyzed differently. First, object scrambling does not prevent LBE of an adjective from the subject. The same goes for certain possessors, for some speakers:

(4) a. **Object scrambling + adjective LBE from subject**

Vesělaja_j tort_k [t_j devočka] ela t_k

happy cake girl ate

‘The happy girl ate cake.’

b. **Object scrambling + possessor LBE from subject**

% Naš/Vasja_j knigu_k [t_j syn] pročital t_k

our/Vasja’s book son read

‘Our/Vasja’s son read the book.’

We suggest that these strings are derived from constructions in which the apparently extracted adjective/possessor does not originate within the nominal phrase (Graschchenkov, 2016). The existence of such constructions provides an analysis for sentences like those in (4) that does not involve sub-extraction, and hence is not subject to the constraints this paper focuses on.

The second exceptional circumstance is sentences where V precedes the subject, in which case the combination of movements in (2b) becomes acceptable for some speakers:

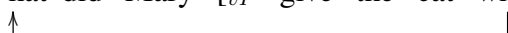
(5) a. **Object scrambling + LBE from subject (OVS order)**

% Každaja/ëta_j kota_k pogladila [t_j devočka] t_k

every/this cat stroked girl

Consider a derivation like (7) below, where the object *what* moves to spec-CP without passing through the edge of vP:

(7) **Hypothetical non-successive-cyclic movement from vP**

[_{CP} What did Mary [_{vP} give the cat ~~what~~]]?


In (7) the vP is completed and consequently spelled-out before *what* moves. Therefore *what* is linearized in its base position, generating the ordering information in (8):

(8) **Ordering at vP (without successive-cyclic movement)**

give < the cat < what ($\alpha < \beta$ means ‘ α linearly precedes β ’)

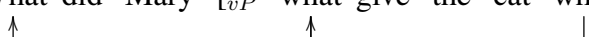
Later, *what* moves in one step to spec-CP. Spell-out of CP produces the information in (9):

(9) **Ordering at CP**

what < did < Mary < [content of vP]

Notice that in (8), *what* was determined to follow everything in vP, but in (9), *what* was established to precede everything in CP, and ultimately also precede the content of vP. This linearization information is contradictory: *what* cannot both be pronounced right of the vP and left of the content of CP. CL posits that such contradictory scenarios cause a crash at PF. However, successive-cyclic movement through the edge of vP avoids this contradiction. Notice that spell-out of the vP in (10) below, where successive-cyclic movement occurs, generates the linearization information in (11):

(10) **Successive-cyclic movement through the linear edge of vP**

[_{CP} What did Mary [_{vP} ~~what~~ give the cat ~~what~~]]?


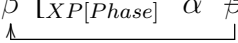
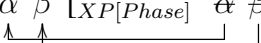
(11) **Ordering at vP with successive-cyclic movement**

what < give < the cat

The ordering of this vP does not contradict the linearization eventually produced at CP that we saw in (9): when (9) and (11) are combined, the result is that *what* is determined to precede the content of both vP and CP. This is consistent with pronouncing *what* at the left edge of the sentence.

If movement from a phase doesn’t pass through the linear edge, hence crossing over some material in the phase on the way out, there is a way to salvage the derivation. Moving that crossed-over material into the next phase to a position preceding what previously crossed it, thus restoring the original order of those elements, keeps linearization coherent:

(12) **Illicit crossing at the edge repaired by restoring original order**

a. * [_{YP[Phase]} β [_{XP[Phase]} α β]]

b. ✓ [_{YP[Phase]} α β [_{XP[Phase]} α β]]


In the next section, we will see that the pressures imposed by CL interact with certain independently motivated properties of syntax to derive the Russian facts previewed above.

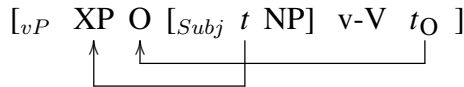
3 Deriving the asymmetry

As (2b) above showed, in Russian sub-extraction from a subject is generally banned when an object scrambles above it. Example (2b) showed this fact with demonstrative LBE, but the same holds for LBE of quantifiers (13a), numerals (13b), and 3rd person pronominal possessors (13c):

- (13) a. **No object scrambling + quantifier LBE from subject**
 * *Každaja_j kota_k [t_j devočka] pogladila t_k*
 every.fem.NOM cat girl.fem.NOM stroked
 ‘Every girl stroked a cat.’
- b. **No object scrambling + numeral LBE from subject**
 * *Tri_j košku_k [t_j mal’čika] uvideli t_k*
 three.NOM cat.ACC boy.SG.GEN saw
 ‘Three boys saw a cat.’
- c. **No object scrambling + 3rd person pronominal possessor LBE from subject**
 * *[Ego/eě/ix]_j včera večerom goršok_k [t_j koška] razbila t_k*
 his/her/their yesterday evening.INSTR pot.ACC cat.NOM broke
 ‘Yesterday evening his / her / their cat broke the pot.’³

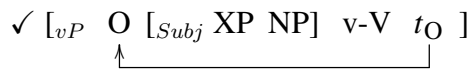
To explain this pattern, we combine CL with two other concepts. First, we assume following other work in phase theory that vP, in whose edge external arguments originate, is a phase in Russian. If vP is a phase, then given CL, the final ordering of any material originating in vP must be able to be established within the vP. Otherwise, the derivation will ultimately suffer from a linearization contradiction. Given this expectation, deriving the unacceptable sentences in (2b) and (13) would require scrambling the object over the subject within vP, and then sub-extracting a constituent from the subject and placing it in a vP-internal position preceding the scrambled object:

- (14) **Object scrambling over subject followed by LBE from subject**



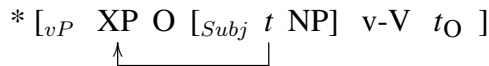
If we can identify a problem with either of these necessary vP-internal movement steps, then we will have a reason why the relevant sentences are unacceptable. The first movement step, where the object scrambles over the subject, poses no problem:

- (15) **No problem with object scrambling over the subject**



However, there are reasons to suspect a problem with the second movement step, in which a constituent undergoes LBE from the subject to a position above the scrambled object within vP:

- (16) **Illegal movement from subject to spec-vP**



³Though this sentence is fine under the interpretation ‘A cat broke his / her / their pot yesterday evening.’

Such movement will fail if there is a ban on movement from one specifier to another of the same phrase (here spec-vP to spec-vP). Ko (2007, 2014) argues that such a ban is predicted if movement of a phrase to the specifier of a head requires a probing feature on that head to find that phrase in its c-command domain (Chomsky, 1995, 2001, a.o.). Since a head does not c-command its specifiers, it cannot move an element from one of its specifiers to another. This ban is also expected by at least some versions of anti-locality, the concept that movement must not be too short (Abels, 2003; Grohmann, 2003; Bošković, 2005; Erlewine, 2016, a.o.). Given the independent reasons for banning phrase-bounded spec-to-spec movement, we have an explanation for the unacceptability of scrambling the object over the subject, and then sub-extracting from the subject. Since the second of these movements cannot occur within the vP, the word order characteristic of these sentences cannot be derived in vP. If that word order is derived later in the derivation, it will contradict the ordering of constituents that the vP established.

The prediction mentioned at the end of the previous section, diagrammed in (12) above, leads us to expect that the unacceptable sentences we are primarily concerned with should be repaired, if the scrambled object ends up left of the constituent extracted from the subject. Doing so restores the order of the extracted material and the object that was established in vP, and so should avoid a linearization contradiction. This prediction is correct:

(17) **LBE from subject permitted when scrambled object precedes extracted element**

Kota_j každaja_k včera večerom [_{vP} t_j [t_k devočka] pogladila t_j]
 cat every yesterday evening girl pet

‘Every girl stroked the cat.’

3.1 Predictions for other sub-extractions from subject

Russian allows inversions in which the head of the nominal phrase is dislocated, stranding its modifiers/specifiers (Pereltsvaig, 2008; Lyutikova, 2012). As expected, object scrambling interrupts the extraction involved in deriving such an inverted split of a subject:

(18) **Inverted split with demonstrative stranding**

a. **Mal’čik_k** (včera) [ètot t_k] pogladil sobaku
boy.masc.NOM (yesterday) **this.masc.NOM** stroked dog.ACC

‘This boy stroked the dog (yesterday).’

b. * **Mal’čik_k** sobaku_j [ètot t_k] pogladil t_j
boy.masc.NOM dog.ACC **this.masc.NOM** stroked

‘This boy stroked the dog.’

(19) **Inverted split with quantifier stranding**

a. **Mal’čik_k** (včera) [každyj t_k] košku uvidel
boy.masc.NOM (yesterday) **every.masc.NOM** cat.ACC saw

‘Every boy saw the cat (yesterday).’

b. * **Mal’čik_k** košku_j [každyj t_k] uvidel t_j
boy.masc.NOM cat.ACC **every.masc.NOM** saw

‘Every boy saw the cat.’

(20) **Inverted split with possessor stranding**

- a. **Koška**_k (včera) [ego/eë/ix _{t_k}] razbila goršok
cat.NOM (yesterday) **his/her/their** broke pot.ACC
 ‘His / her / their cat broke the pot (yesterday).’
- b. ?? **Koška**_k goršok_j (včera večerom) [ego/eë/ix _{t_k}] razbila _{t_j}
cat.NOM pot.ACC (yesterday evening.INSTR) **his/her/their** broke
 ‘(In the yesterday’s evening) his / her / their cat broke the pot.’

(21) **Inverted split with numeral stranding**

- a. **Mal’čika**_k (verojatno) [**tri** _{t_k}] uvideli košku
boy.SG.GEN (probably) **three.NOM** saw cat.ACC
 ‘(Probably), (approximately) three boys saw a cat.’
- b. * **Mal’čika**_k košku_j [**tri** _{t_k}] uvideli _{t_j}
boy.SG.GEN cat.ACC **three.NOM** saw
 ‘Three boys saw a cat.’

In contrast and as expected, split inversion of an object which crosses the subject is acceptable:

(22) **Inverted split of object over subject**⁴

- a. **Mal’čik** uvidel [**koški**_k **tri** _{t_k}]
boy.NOM saw **cat.SG.GEN** **three.ACC**
 ‘The boy saw (approximately) three cats.’
- b. **Koški**_k **mal’čik** uvidel [_{t_k} **tri** _{t_k}]
cat.SG.GEN **boy.NOM** saw **three.ACC**
 ‘The boy saw (approximately) three cats.’

These patterns are amenable to the same explanation we proposed for similar sentences involving LBE from the subject. CL requires the element extracted in an inverted split of a subject to move from the subject to a position within vP above the scrambled object. However, such phrase-bounded spec-to-spec movement cannot occur. The same restriction, and explanation, holds for extraction of a post-nominal genitive complement of a subject:

(23) a. **Initial sentence**

Dočka **xudožnika** pogladila kota
 daughter **painter.GEN** stroked cat.ACC
 ‘Daughter of a painter stroked the cat.’

b. **Extraction of complement from subject**

Xudožnika_j (včera) [**dočka** _{t_j}] pogladila kota
painter.GEN (yesterday) **daughter** stroked cat.ACC
 ‘Daughter of a painter stroked the cat.’

⁴Inverting N to the right of the numeral triggers an “approximately” reading for the numeral, as (22a) shows. Inverted splits involving numerals generally yield the same reading (22b), suggesting that the N < Numeral order involved in such splits is derived before the split occurs. This is what we expect if nominal phrases are phases, since if this is so, any material that sub-extracts from a nominal phrase must exit via its left linear edge.

c. **No object scrambling + extraction of complement from subject**

* **Xudožnika_j** kota_k [**dočka t_j**] pogladila t_k
painter.GEN cat.ACC daughter stroked

‘Daughter of a painter stroked the cat.’⁵

3.2 Predictions for the interaction of other material originating in vP

The account proposed above predicts that we will find familiar restrictions when we combine sub-extraction from subjects with the scrambling of other vP-internal material. For instance, as expected, scrambling of an oblique argument also blocks extraction from the subject:

(24) **Oblique argument scrambling blocks LBE from subject**

a. **Initial sentence**

Ětot student predstavil učitel’nice Mašu
this student introduced teacher.fem.DAT Masha.ACC
 ‘This student introduced Masha to the teacher.’

b. **Dative scrambling**

Učitel’nice_k **ětot student** predstavil t_k Mašu
 teacher.fem.DAT **this student** introduced Masha.ACC
 ‘This student introduced Masha to the teacher.’

c. **Dative scrambling + LBE from subject**

* **Ětot_j** učitel’nice_k [t_j **student**] predstavil t_k Mašu
this teacher.fem.DAT **student** introduced Masha.ACC
 ‘This student introduced Masha to the teacher.’

The same is true for scrambling of a VP-level PP:

(25) **PP scrambling from vP blocks LBE from subject**

a. **Initial sentence**

Pjat’ mal’čikov prinesli v klass pivo
five.NOM boy.GEN.PL brought in classroom beer
 ‘Five boys brought beer into the classroom.’

b. **PP Scrambling**

[V klass]_k **pjat’ mal’čikov** prinesli t_k pivo
 in classroom **five.NOM boy.GEN.PL** brought beer
 ‘Five boys brought beer into the classroom.’

c. **PP scrambling + LBE from subject**

* **Pjat’_j** [v klass]_k [t_j **mal’čikov**] prinesli t_k pivo
five.NOM in classroom **boy.GEN.PL** brought beer
 ‘Five boys brought beer into the classroom.’

The same also holds for scrambling of low adverbs:

⁵Though this sentence is grammatical with a different reading, that the daughter stroked the cat of a painter.

- (26) a. **Initial sentence**
Každaja **devočka** vyčistila jaščik polnostju
every.fem.NOM girl.fem.NOM cleaned drawer completely
 ‘Every girl cleaned a drawer completely.’
- b. **Low Adverb Scrambling**
 Polnostju_k **každaja** **devočka** vyčistila jaščik *t_k*
 completely **every.fem.NOM girl.fem.NOM** cleaned drawer
 ‘Every girl cleaned a drawer completely.’
- c. **Low Adverb Scrambling + LBE from subject**
 * **Každaja_j** polnostju_k [*t_j* **devočka**] vyčistila jaščik *t_k*
every.fem.NOM completely **girl.fem.NOM** cleaned drawer
 ‘Every girl cleaned a drawer completely.’

Scrambling (or external merge) of an adverb into the vP edge will necessitate LBE from the subject to target a higher specifier of the same vP, above that adverb. As mentioned, such movement is banned, thus (26c) is ruled out. Furthermore, we see below that adverbs which plausibly originate outside the vP do not have the same blocking effect on LBE from the subject:

- (27) **High adverbs do not interrupt extraction from subject**
- a. **Každaja_k** [včera večerom] [*t_k* **devočka**] vyčistila jaščik
every.fem.NOM yesterday evening.INSTR **girl.fem.NOM** cleaned drawer
 ‘Every girl cleaned a drawer yesterday evening.’
- b. **Ètot_k** [po vsej vidimosti] [*t_k* **student**] predstavil
this.masc.NOM at all sight **student.masc.NOM** introduced
 učitel’nice Mašu
 teacher.fem.DAT Masha.ACC
 ‘Apparently, this student introduced Masha to the teacher.’
- c. **Pjat’_k** [verojatno] [*t_k* **mal’čikov**] prinesli v klass pivo
five.NOM probably **boy.GEN.PL** brought in classroom beer
 ‘Probably, five boys brought beer into the classroom.’

This is expected, since an adverb that originates outside of vP doesn’t interact with the linearization information established for elements originating within the vP.

4 The exceptional nature of adjectives and possessors

As mentioned in the introduction, the asymmetry examined here does not hold for some elements. That is, object scrambling does not block LBE from a subject which extracts an adjective (for all speakers), or a 1st person / 2nd person / lexical possessor (for some speakers).⁶

⁶This difference indicates that the constraints analyzed in this paper are likely not due to something like parsing difficulty. That is, it is not obvious why it should be harder to parse sentences involving extraction of a demonstrative or quantifier, as opposed to an adjective. The gap left behind by movement of these elements occurs in an identical position in the linear string. The fact that a different position for the verb also improves the relevant sentences, as discussed at the end of this paper, is suggestive of the same conclusion. It is unclear how any of these circumstances should make the crucial combination of movements any easier to process.

(28) **Object scrambling doesn't block LBE of adjectives and some possessors from subject**⁷

- a. **Vesělaja_j** tort_k [*t_j* **devočka**] ela *t_k*
happy cake **girl** ate
 'The happy girl ate cake.'
- b. % **Naš/Vasin_j** knigu_k [*t_j* **syn**] pročit_k
our/Vasja's book **son** read
 'Our/Vasja's son read the book.'

The fact that an island boundary (a relative clause in (29) below) makes such sentences unacceptable suggests that movement is indeed involved here:

(29) **Adjective/possessor LBE from subject is island-bounded**

- a. * **Čěrnju_j** devočka, [kotoraja uvidela [*t_j* **košku**]], ela tort
black girl who saw cat.ACC ate cake.ACC
 'The girl who saw a black cat ate cake.'
- b. * **Našu_j / Vasinu_j** devočka, [kotoraja uvidela [*t_j* **košku**]], ela tort
our / Vasja's girl who saw cat.ACC ate cake.ACC
 'The girl who saw a our /Vasja's cat ate cake.'

We hypothesize that the unexpected strings in (28) are derived from constructions where the seemingly extracted adjective or possessor originates external to the nominal phrase. If this is correct, such sentences should indeed be immune to the constraints we have discussed so far, since they do not involve sub-extraction.

One possibility along such lines is that these sentences are derived from certain "secondary predication structures, in which an adjective is generated outside of the subject":⁸

(30) **Secondary predication**

Maša otpravilas' domoj, [*PredP* **vesělaja (i vsem dovol'naja)**]
 Maša went home happy and all.INSTR satisfied

'Masha went home, (while being) happy (and satisfied with everything).'

Such an analysis is only applicable to adjectives, however, since possessors do not appear to participate in this sort of secondary predication. Thus this analysis is plausible for speakers we have encountered who exhibit the following judgment pattern. #1: No co-occurrence of object scrambling and possessor LBE from subject (thus (28b) is unacceptable). #2: Acceptance of examples like (28a) when they involve movement of stage-level adjectives like "happy" which readily form the relevant secondary predications. #3: No acceptance of examples like (28a) if they involve movement of an individual-level adjective like "blue-eyed" or "tall" (31):

⁷We cannot currently offer a decisive explanation for why 3rd person pronominal possessors are unique in never forming strings like (28b) for any speakers, as (13c) above showed. An explanation will likely depend on the fact that such possessors uniquely do not undergo case/gender/number concord with the possessum. The lack of such concord perhaps makes sentences like (13c) unacceptable due to being confusing, since when such a possessor is extracted, its morphology does not make it possible to unambiguously determine which noun phrase it is associated with.

⁸A reviewer suggests that both the intonation and the interpretation of sentences like (28a) is indicative of such a derivation based on secondary predication. We appreciate this observation.

(31) **No object scrambling + LBE of individual level adjective (for which there is no secondary predication analysis available)**

- a. * **Goluboglazyj_j** stixotvorenije [**t_j mal’čik**] pročital
 blue-eyed poem boy read
 ‘The blue-eyed boy read a poem.’
- b. * **Vysokaja_j** zabor [**t_j devočka**] pereprygnula
 tall fence girl jumped.over
 ‘The tall girl jumped over the fence.’

As mentioned, there are also speakers who accept examples like (28b), where extraction of a possessor from the subject succeeds despite there being object scrambling. While such Russian pre-nominal possessors may be adjuncts just as adjectives are (Lyutikova, 2014),⁹ it is not clear they are amenable to a secondary predication analysis. However, both adjectives and possessors can be what Grascchenkov (2016, 2018) analyzes as “shifted” attributes:

(32) **Shifted attributes**

- Maša včera razbila vazu — **doroguščuju, maminu / moju**
 Masha yesterday broke vase **very.expensive mom’s / my**
 ‘Mary broke a vase yesterday — a very expensive one, mom’s / mine.’

Grascchenkov (2016) argues that such shifted attributes originate in a PredP, and not within the nominal phrase. If such a construction is possible for possessors, then this would provide a basis for deriving sentences like (28b) above. An argument in favor of the ability of possessors to originate outside of the nominal phrase is the fact that only “shifted” possessors can modify pronouns:¹⁰

⁹If adjectives and possessors are both adjuncts, and adjuncts are uniquely able to be merged late (Lebeaux, 1991), then word orders like (28) could be derived by covertly moving the subject and then late merging to it. One of Lebeaux’s diagnostics for late merge is avoidance of principle C. If Russian permits covertly moving an argument and then late merging an adjunct to it, such a derivation should be able to produce a sentence like (ii), where a lexical possessor construed with the object occupies a position above the co-indexed possessor:

- ii. * **Vašinu₁ on₁** uvidel košku
 vasja’s he saw cat.ACC
 ‘Vasja saw his cat’

Since this sentence is unacceptable, we do not pursue a late merge approach, at least for possessors.

¹⁰Another possibility is that speakers who allow examples like (28b) have an independent topic-like use of these possessors. For instance, the possessor in (iii.) can be interpreted like an “as for” phrase with an elided possessum:

- iii. **Naš-(to)_j / Vasin-(to)_j** dvojku_k **t_j syn** polučil **t_k**
 our-TOP / Vasja’s-TOP two **son** got
 ‘As for ours/Vasja’s, the son got a two.’

It is not clear that this use of possessors is related to the LBE in (28b). The information structure of (28b) seems different, likely instantiating focus rather than topicalization. Also, it is difficult to analyze (iii.) as a kind of a hanging topic, since this construction is island-sensitive, suggesting the presence of movement of some variety:

- iv. ***Našego-(to)_k** ja uvidela devočku, kotoraja pogladila **t_k** kota
 our-TOP I saw girl who stroked vat
 ‘I saw a girl who stroked our cat.’

(33) **Possessor cannot modify pronoun unless shifted**

- a. * **Moj on** vyšel na scenu
 my he went.out on stage
 ‘My he went onto the stage.’
- b. **Moj**, vsemi obožamyj, **on** vyšel na scenu
 my by.all adored he went.out on stage
 ‘My, adored by everyone, he went onto the stage.’

If the shifted possessor in (33b) originated within the associated pronoun, it is unclear why that possessor should be unacceptable when not shifted (33a).

5 The ameliorating effect of VS order as phase extension

All the sentences we have examined so far use SV order, but Russian also permits VS orders. Interestingly, for at least some speakers, the asymmetry we derived in the first part of this paper disappears when V precedes the subject, as in (34) below. Here the scrambled object and V precede the subject, from which LBE succeeds:

(34) **VS order permits object scrambling + extraction from subject**

- a. % **Každaja/ëta** kota_k pogladila [_{t_j} **devočka**] _{t_k}
 every/this cat stroked girl
 ‘Every/this girl stroked the cat.’
- b. % **Každaja/ëta** pogladila kota_k [_{t_j} **devočka**] _{t_k}
 every/this stroked cat girl
 ‘Every/this girl stroked the cat.’

Several works argue that if a phase head moves, it extends phasehood up to the head moved to (Den Dikken, 2007; Gallego, 2010; Alexiadou et al., 2014). Following such works, we suggest that in sentences like (34), V moves to a head above vP, carrying v into a higher head, which thereby inherits the phasehood of v:

(35) **Head movement enlarges the phase (here to a hypothetical XP)**



The constraints on LBE from subjects analyzed in this paper are only predicted to hold when vP is a phase, due to the ban on phrase-bounded specifier to specifier movement. But if V-v movement from vP causes a higher projection to count as the relevant phase, as in (35), then that ban will cease to be applicable. Thus in a structure like (35) it should be possible to scramble an object to spec-XP or spec-vP, and then extract an element from the subject and into spec-XP. Such movements, all of which are locality-respecting, derive the word orders of (34) within the local phase.

We thus adopt such an account for (34). Under this analysis, while Russian V typically raises no higher than v in the syntax, when it does move further the relevant phase is expanded, and the usual constraints on movement from the subject cease to hold. Consistent with this proposal is Bailyn (2012), who represents the Russian V in v, and Bailyn (1995), for which V moves somewhat, but not up to T. While Gribanova (2013, 2017) argues that Russian V moves as far as an Aspect head above vP for the purposes of morpho-phonological unification, Gribanova & Harizanov

(2018) raise the possibility of such movement being the result of post-syntactic morphological amalgamation rather than head movement beyond vP in the syntax itself.¹¹

6 Conclusion

In this paper, we argued that certain restrictions on scrambling in Russian emerge if we adopt Cyclic Linearization, the concept of vP as a phase in Russian, and a ban on phrase-bounded spec-to-spec movement. We also observed that adjectives (and most possessors, for some speakers) are exempt from the relevant restrictions, and suggested that this is so because these elements can originate external to the nominal phrase. Finally, we hypothesized that VS order sometimes ameliorates the typical constraints on scrambling by enlarging the relevant phase, thereby allowing greater possibilities for movement within that domain, and allowing typically impossible word orders to be successfully derived.

7 Appendix: Unergatives versus unaccusatives

This paper has focused on the subjects of transitive clauses, but our account predicts that scrambling of vP-internal material should block extraction from the subject of unergative predicates as well, though not from that of unaccusative ones. This prediction does not appear to be correct:

- (36) a. **Pjat'**_j s dereva [**t_j jabloko**] upalo b. **Pjat'**_j v klasse [**t_j devoček**] tancevali
five from tree apples fell **five** in class girls danced
 'Five apples fell from the tree.' 'Five girls danced in the class.'

For quantifier LBE there appears to be a contrast of the expected sort. PP scrambling blocks such LBE from unergative subjects, but not from unaccusative subjects:

(37) Quantifier LBE - Unaccusative

- a. **Každoje** **jabloko** upalo na zemlju
every.neut.NOM **apple.neut.NOM** fell on ground
 'Every apple fell on the ground.'
- b. **Každoje**_j [na zemlju]_k [**t_j jabloko**] upalo *t_k*
every.neut.NOM on ground **apple.neut.NOM** fell
 'Every apple fell on the ground.'

(38) Quantifier LBE - Unergative

- a. **Initial sentence**
Každaja **devočka** prygala so skakalkoj
every.NOM **girl.NOM** jumped with jumping.rope
 'Every girl jumped with a jumping rope.'
- b. **PP Scrambling**
 [So skakalkoj]_k **každaja** **devočka** prygala *t_k*
 with jumping.rope **every.NOM** **girl.NOM** jumped
 'Every girl jumped with a jumping rope.'

¹¹The ameliorating effect of verb movement shown here is not absolute. For some speakers, and in some configurations, it did not greatly improve the sentence. We must leave this puzzle aside for now.

c. **No PP scrambling + quantifier LBE from subject**

- * **Každaja_j** [so skakalkoj]_k [*t_j* **devočka**] prygala *t_k*
every.NOM with jumping.rope **girl.NOM** jumped
 ‘Every girl jumped with a jumping rope.’

The fact that we have not reliably found a distinction between unergative and unaccusative subjects is the major challenge for further development of this analysis. The most obvious explanations for this finding are that we are not properly controlling for unergativity/unaccusativity, or that the subjects of transitives and unergatives originate in different positions in Russian. While a more detailed understanding of Russian argument structure may furnish an analysis of the second sort, this is beyond the scope of this paper.

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