

Chapter 8

How to introduce instrumental agents: Evidence from binding in Russian event nominal phrases

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The aim of this paper is to argue that instrumental agents in Russian are introduced by a silent P through binding phenomena by instrumental agents in event nominal phrases. Two assumptions are adopted in this paper: one is the absence of the DP layer in Russian based on binding phenomena and the other is a particular structure of event nominal phrases. I show that the appropriateness of proposing a silent P is supported by Generalized Case Realization Requirement in Russian and that the silent P is a lexical preposition, not a functional one due to its ability to bind objects out of PP.

Keywords: Russian, event nominal phrases, DP–NP, instrumental agents

1 Introduction

In this paper, I claim that instrumental agents in Russian are introduced by a silent P (\emptyset), through binding phenomena by instrumental agents in event nominal phrases. Two assumptions are adopted here: one is the structure of event nominal phrases proposed by Miyauchi & Ito (2016) and Miyauchi (to appear), and the other is that Russian nominal phrases are not DP but NP. I discuss that GENERALIZED CASE REALIZATION REQUIREMENT (GCRR) in Serbo-Croatian (Horvath 2014) can apply (at least partially) to Russian and show that setting a silent P is appropriate via this discussion. Finally, I point out a possibility to bind objects out of PP and demonstrate that the silent P is a lexical preposition, not a functional one.



The rest of this paper is organized as follows. In §2, I outline discussion on the structure of nominal phrases through Russian binding phenomena. §3 offers a syntactic account on a restriction of θ -roles of genitive nouns in event nominal phrases with some assumptions, based on Miyauchi & Ito (2016) and Miyauchi (to appear). In §4, I propose the syntactic structure of event nominal phrases containing instrumental agents and §5 shows the validity of GCRR in Russian. §6 points out that there are binding phenomena out of PP in Russian and the proposed structure is modified. Finally, §7 concludes the paper.

2 Russian binding phenomena and the structure of nominal phrases

The structure of Slavic nominal phrases without overt articles is controversial in terms of whether they have DP in their structure or not. Some researchers insist on the presence of DP even in Slavic (Progovac 1998; Rappaport 2002; Rutkowski 2002; Bašić 2004; Franks & Pereltsvaig 2004; Pereltsvaig 2007; Rutkowski & Maliszewska 2007; LaTerza 2016, etc.), while others maintain that nominal phrases in Slavic are NPs (Zlatic 1998; Trenkić 2004; Bošković 2005; 2007; 2009; Petrović 2011; Despić 2013, etc.).

In this paper, I investigate instrumental agents in event nominal phrases in Russian from the standpoint of the no-DP analysis.¹ In this section, I outline the discussion of the structure of nominal phrases through Russian binding phenomena, which gives support to the no-DP analysis, based on Despić's (2013) paradigm.² Despić (2013) argues that binding phenomena and Kayne's (1994) antisymmetry approach provide a key to examine the existence or absence of the DP projection. He concludes that there is no DP in Serbo-Croatian and that the D-like elements are adjuncts.

Following Despić (2013), I adopt Kayne's (1994) definition of c-command given in (1).³

- (1) X c-commands Y iff X and Y are categories, X excludes Y and every category that dominates X dominates Y. (Kayne 1994: 16)

The definition of exclusion is as follows (2):

¹Note that the NP/DP debate itself is beyond the scope of this paper. Please see the references cited above for arguments for and against the DP projection in Slavic.

²The content of this section is based on Miyauchi (2016). Please see Miyauchi (2016) for more details.

³I use this definition of c-command henceforth.

- (2) α excludes β if no segment of α dominates β . (Chomsky 1986: 9)

The Russian sentences (3a), (4a), and (5a) are ungrammatical with co-reference between possessors and pronouns, while (3b), (4b), and (5b) are grammatical. There is a clear contrast between (3a), (4a), (5a) and (3b), (4b), (5b).

- (3) a. * *Kolin_i poslednij fil'm sil'no ego_i razočaroval.*
 Kolya's latest film really him disappointed
 Intended: 'Kolya_i's latest film really disappointed him_i.'
- b. *Poslednij fil'm Koli_i sil'no ego_i razočaroval.*
 latest film Kolya.GEN really him disappointed
 'The latest film of Kolya_i really disappointed him_i.'
- (4) a. * *Vanin_i papugaj ukusil ego_i včera.*
 Vanya's parrot bit him yesterday
 Intended: 'Vanya_i's parrot bit him_i yesterday.'
- b. *Papugaj Vanin_i ukusil ego_i včera.*
 parrot Vanya.GEN bit him yesterday
 'The parrot of Vanya_i bit him_i yesterday.'
- (5) a. * *Sašin_i mjač včera udaril ego_i po golove.*
 Sasha's ball yesterday hit him in head
 Intended: 'Sasha_i's ball hit him_i in the head yesterday.'
- b. *Mjač Saši_i včera udaril ego_i po golove.*
 ball Sasha.GEN yesterday hit him in head
 'The ball of Sasha_i hit him_i in the head yesterday.'

Let us see (3) as a representative case. Following Despić (2013), I argue that (3a) is ungrammatical because the possessor *Kolin* 'Kolya's' binds the co-indexed pronoun *ego* 'him,' which results in Condition B violation. According to the reasoning in Despić (2013), this suggests that Russian nominal phrases lack the DP layer.⁴ Figure 1 shows the structure of (3a).⁵ Note that under Kayne's (1994) the-

⁴An anonymous reviewer argues that the Serbo-Croatian data in Despić (2013) corresponding to the examples (3)–(5) are not ungrammatical, which suggest Despić's (2013) conclusion about the presence/absence of the DP layer in Serbo-Croatian is questionable, but as I am only concerned with Russian here, I do not have much to add. I am only employing the reasoning and the structure of the argument developed in Despić (2013). My argument for the lack of DP in Russian is thus valid regardless of the quality of Despić's (2013) Serbo-Croatian data.

⁵The object *ego* 'him' in (3a) is scrambled and the word order of this sentence becomes SOV. For the sake of simplicity, however, scrambling is ignored in Figure 1. I take the basic word order in Russian to be SVO, following Isačenko (1966).

ory, specifiers are taken to be adjoined phrases. Consequently, specifiers are not distinguished from adjuncts and the bar-level notation does not make sense.⁶

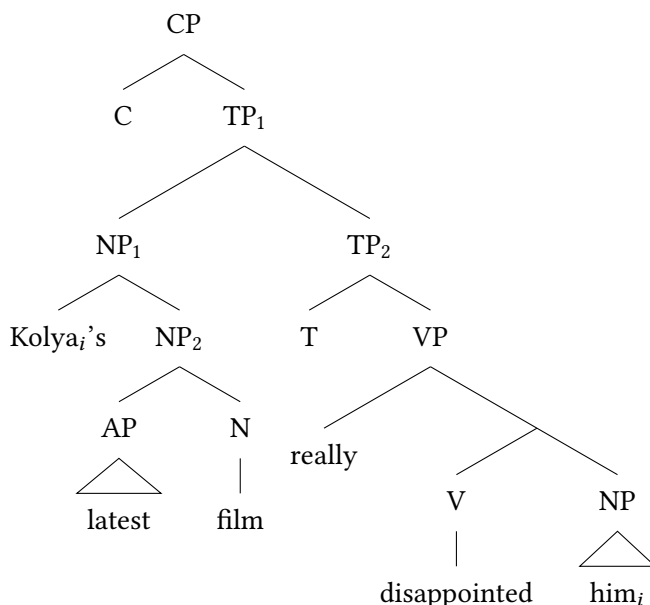


Figure 1: The structure of (3a)

In Figure 1, the first category dominating ‘Kolya’s’ is CP, which also dominates the object NP ‘him’.⁷ Therefore, the possessor ‘Kolya’s’ c-commands the object ‘him’, violating Condition B. Accordingly, (3a) is ungrammatical. If there was an additional DP layer in the nominal phrase, as illustrated in Figure 2, the possessor ‘Kolya’s’ would not c-command the pronoun and there would thus be no Condition B violation. (3a) should be grammatical, contrary to fact.

In Figure 2, ‘Kolya’s’ is dominated by the category DP, which does not dominate any other node outside of the nominal phrase. That is to say, the possessor ‘Kolya’s’, does not c-command the object NP. For this reason, with the DP layer, there would be no violation of Condition B in sentences like (3a) and these sentences should be grammatical. Thus, it is concluded that the ungrammaticality of (3a) shows that there is no DP layer in Russian.

⁶I do not use the bar-level notation. The conventional X' (X-bar/X-prime) is written as XP or is omitted in the trees in this paper.

⁷Note that NP₁ and TP₁ are segments not categories.

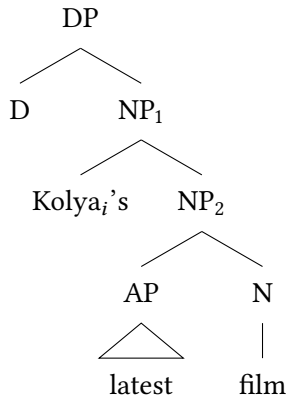


Figure 2: The structure of the subject of (3a) with a DP layer

How can we capture the grammaticality of (3b)? Generally, the genitive possessor NP is supposed to be located in the complement of the (head) NP (Franks 1995: 38; Bailyn 2012: 214; Mitrenina et al. 2012: 84).⁸ Figure 3 represents the structure of (3b).

In this case, the categories dominating NP_{GEN} are NP_1 and CP. NP_{GEN} does not c-command the object NP because the subject NP_1 does not dominate the object NP. Thus, there is no Condition B violation and sentences like (3b) are grammatical.

The contrast in grammaticality between prenominal possessive constructions (3a), (4a), (5a) and postnominal ones (3b), (4b), (5b) supports the argument that the DP is not projected in Russian. For the rest of the paper, I adopt the no-DP analysis of Russian nominal phrases.

3 Russian event nominal phrases and their structures

3.1 Russian event nominals

An “event nominal” denotes an event or process and inherits argument structure of its base verb (Grimshaw 1990 in general, Schoorlemmer 1998, Pazelskaya 2007

⁸To be precise, Bailyn (2012) does not propose this structure. According to Bailyn (2012), adnominal genitives occupy the complement of QP in (i):

(i) $[NP\ N\ [QP\ Q\ [NP_{GEN}\]]]$ (Bailyn 2012: 214; slightly modified by the author)

Bailyn (2012: 214) proposes that Q assigns the genitive case to the sister NP (there is a case where Q is covert). However, these differences in the positions of genitive NP have no effect on the argument of this paper since genitive possessor NP is located lower than possessee NP.

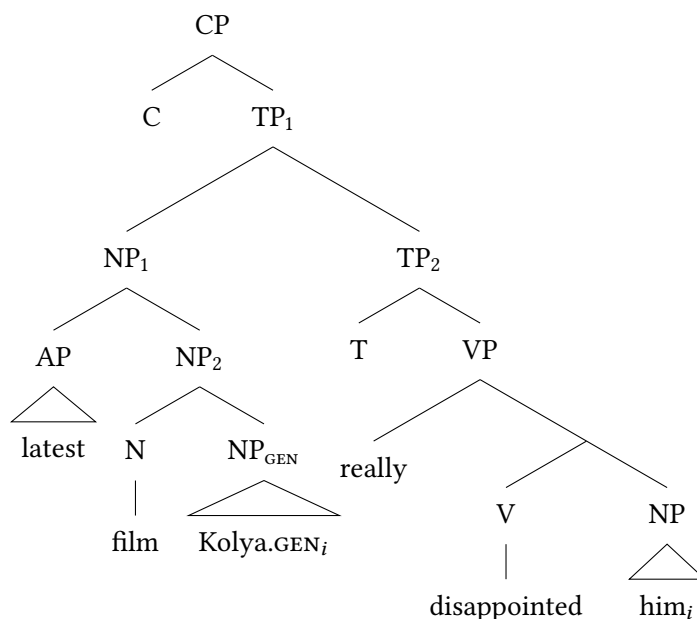


Figure 3: The structure of (3b)

for Russian).⁹

It can be followed by a genitive complement in Russian.

- (6) a. Type 1: ✓ external argument / ✗ internal argument
 udar {mužčiny / *stola}
 hit man.GEN table.GEN
 ‘the hit of {the man / the table}’
- b. Type 2: ✓ external argument / ✓ internal argument
 ispolnenie {Šaljapina / arii}
 performance Chaliapin.GEN aria.GEN
 ‘the performanc of {Chaliapin / the aria}’
- c. Type 3: ✗ external argument / ✓ internal argument
 razrušenie {*vraga / goroda}
 destruction enemy.GEN city.GEN
 ‘the destruction of {the enemy / the city}’

⁹The content of this section is mostly based on Miyauchi & Ito (2016) and Miyauchi (to appear). Please see Miyauchi & Ito (2016) and Miyauchi (to appear) for more details.

This kind of restriction of genitive complements' θ -roles is thought to result from argument structures of event nominals (Pazelskaya 2007). Therefore these phenomena have been dealt with as lexical problems. Miyauchi & Ito (2016) and Miyauchi (to appear) tried to provide more principled explanation for these phenomena as syntactic problems based on phase theory.

I adopt the framework of DISTRIBUTED MORPHOLOGY (Halle & Marantz 1993), in which $\sqrt{\quad}$ (root) moves to a categorizer (*n*, *v*, *a*, etc.) to determine its category. The contention of Miyauchi & Ito (2016) and Miyauchi (to appear) is that type 1 nominals and type 2/3 nominals differ structurally. I adopt the structure in Figure 4 for all event nominals and explain below how the two types differ.

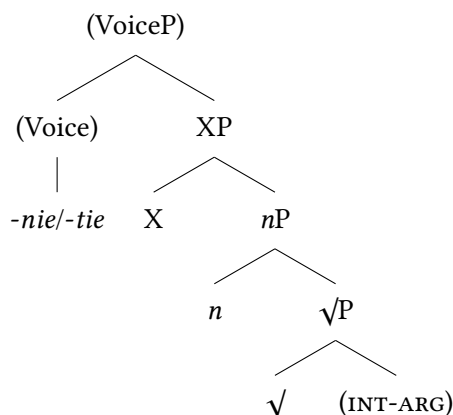


Figure 4: The structure of the event nominal phrases

Unlike in type 2/3, which project the entire structure, VoiceP is not projected in type 1. This structural difference is supported by the absence of a verbal nominalizer *-nie/-tie* in type 1 nominals.¹⁰ I suppose that $\sqrt{\quad}$ directly takes an internal argument following Harley (2009). Moreover, a functional head, X, licenses genitive Case through Agree.¹¹

I assume Chomsky's (2000) phase theory and the proposal that *nP* is a phase (Carstens 2001; Arad 2003; Hicks 2009, etc.). It then follows from PHASE IMPENETRABILITY CONDITION, shown in (7), that internal arguments cannot be genitive in type 1 nominals.

¹⁰This argument assumes that the nominalizer occupies the head of VoiceP. Support for this assumption comes from the fact that the nominalizer is morphologically complex and seems to include the passive participle morpheme *-n/-t-* (Babby 1997).

¹¹This X is a counterpart of Num(ber) in Carstens (2001), which is claimed to be a licenser of Case. Bailyn (2012), on the other hand, argues that the genitive case assigner in Russian is Q. The true identity of X lies outside the scope of this paper.

(7) Phase Impenetrability Condition (PIC)

In phase α with head H, the domain of H is not accessible to operations outside α , only H and its edge are accessible to such operations.

(Chomsky 2000: 108)

In type 2/3 nominals, the head of \sqrt{P} moves to the nominalizer *-nie/-tie*, the head of VoiceP, in order to derive its form. Therefore, the *nP* phase slides up to VoiceP due to PHASE-SLIDING (Gallego 2010).¹² The size of the new phase is shown with a box in Figure 5.

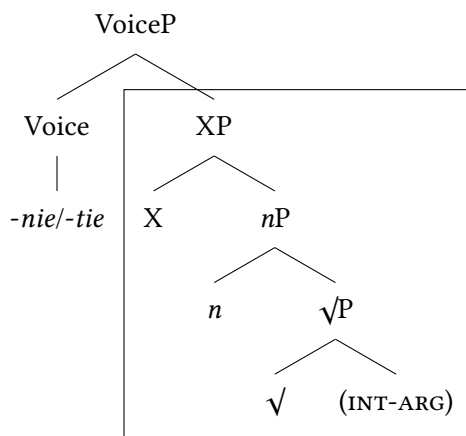


Figure 5: The structure of event nominal phrases with phase-sliding

Thus, phase-sliding makes it possible that X Agrees with an internal argument, not violating PIC. Consequently, internal arguments are allowed to have genitive Case.

3.2 Genitive external arguments

To avoid wrong prediction, I suppose two external θ -roles: possessor (Poss) and agent (AG). In type 1/2, Poss is merged in the specifier of *nP* (Carstens 2000; 2001; Adger 2003, etc.). By contrast, AG in the type 3 is adjoined to VoiceP like

¹²According to phase-sliding, when a verb head-moves from v^* to T, the phasehood of v^* also moves to T. I can generalize this proposal: when X, a phase, head-moves to Y, the phasehood of X also moves to Y. Thus, phase-sliding can be applied to event nominals. In this example, $\sqrt{}$ moves to VoiceP stopping at *n* and X, picking them up along the way because of the head movement constraint (Travis 1984; Matushansky 2006). Since *n* is a phase head, phase-sliding also occurs.

by phrases in English (Bruening 2013).¹³ Poss is c-commanded by the probe, X and thus X can Agree with it as illustrated in Figure 6. Consequently, external arguments in type 1/2 can be genitive at the postnominal position. On the other hand, AG is not c-commanded by the probe X and hence X cannot Agree with it as schematized in Figure 6. This is why external arguments in type 3 cannot appear in genitive case postnominally.¹⁴

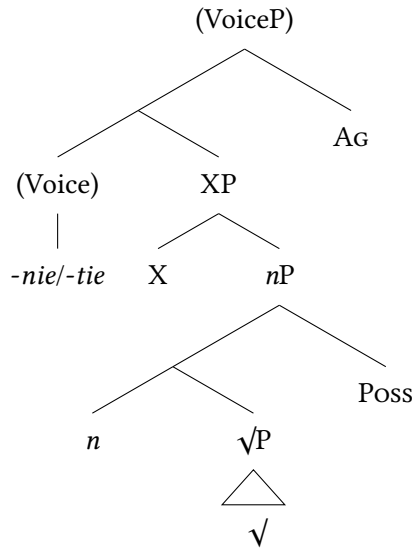


Figure 6: The structure of event nominal phrases with external θ -roles

4 Instrumental agents introduced by silent P

4.1 Russian event nominals with instrumental agents

Double genitives are basically banned in Russian as shown in examples (8a), (9a), where type 2 and type 3 nominals are used. When both internal and external

¹³In fact, a distinction between specifiers and adjuncts cannot be made under Kayne's (1994) theory. What is significant here, however, is the structural difference between Poss and AG. That is, Poss is located in the *nP* domain, while AG is in the *VoiceP* domain.

¹⁴In addition to these structures of event nominal phrases, Miyauchi (to appear) suggests that there are two types on *nP* through semantic analyses. Please see Miyauchi (to appear: section 5) for more details.

arguments are expressed in the same phrase, the former is assigned the genitive case and the latter is assigned the instrumental case as indicated in (8b), (9b).

(8) Type 2

- a. * ispolnenie arii Šaljapina
performance aria.GEN Chaliapin.GEN
Intended: ‘the performance of aria by Chaliapin’
(Ljutikova 2016: 162)
- b. ispolnenie arii Šaljapinym
performance aria.GEN Chaliapin.INS
‘the performance of aria by Chaliapin’ (Gerasimova 2016: 64)

(9) Type 3

- a. * razrušenje goroda vraga
destruction city.GEN enemy.GEN
Intended: ‘the destruction of the city by the enemy’
- b. razrušenje goroda vragom
destruction city.GEN enemy.INS
‘the destruction of the city by the enemy’

In Serbo-Croatian, if the agent nominal is a complex phrase, the double genitive construction is perfectly acceptable as shown in (10).¹⁵

- (10) snimak požara Emira Kusturice
record fire.GEN Emir.GEN Kusturica.GEN
‘the shot of the fire by Emir Kustiruca’

However, in Russian, even if agents are complex, double genitives are not permitted as indicated in (11).¹⁶

- (11) a. * s'emka požara Ivana Andreeviča
shot fire.GEN Ivan.GEN Andreevich.GEN
Intended: ‘the shot of fire by Ivan Andreevich’
- b. * ispolnenie arii izvestnogo pevca Šaljapina
performance aria.GEN famous.GEN singer.GEN Chaliapin.GEN
Intended: ‘the performance of aria by the famous singer, Chaliapin’

¹⁵This was kindly pointed out by an anonymous reviewer.

¹⁶Although the micro-variation between Serbo-Croatian (10) and Russian (11) is significant, this paper cannot address this contrast since it focuses on only Russian.

Of course, as is the case with (8), (9), the phrases are acceptable when the complex agents are instrumental as show in (12).

- (12) a. s'emka požara Ivanom Andreevičem
 shot fire.GEN Ivan.INS Andreevich.INS
 'the shot of fire by Ivan Andreevich'
- b. ispolnenie arii izvestnym pevcom Šaljapiny
 performance aria.GEN famous.INS singer.INS Chaliapin.INS
 'the performance of aria by the famous singer, Chaliapin'

Instrumental phrases can appear as agents of COMPLEX EVENT NOMINALS (CEN), which have argument structures. CEN obligatorily take internal arguments and overtly express them (Revzin 1973; Schoorlemmer 1998, etc.). That is, an instrumental agent cannot appear without an internal argument unless it is elided as illustrated in (13)–(14).¹⁷

- (13) a. * ispolnenie Šaljapiny
 performance Chaliapin.INS
 Intended: 'the performance by Chaliapin' (Revzin 1973: 90)
- b. * razrušenie vragom
 destruction enemy.INS
 Intended: 'the destruction by the enemy'
- (14) a. ispolnenie Δ Šaljapiny
 performance Chaliapin.INS
 'the performance by Chaliapin of ...'
- b. razrušenie Δ vragom
 destruction enemy.INS
 'the destruction by the enemy of ...'

The type 2 and 3 nominals have VoiceP as mentioned in §3. If I assume that instrumental agentive phrases are located at a domain related with VoiceP, it is natural that the type 1 nominals cannot have instrumental agentive phrases because of the absence of VoiceP. This is reflected in the ungrammaticality of (15).

¹⁷Δ in (14) expresses a deleted internal argument.

(15) Type 1

- a. *udar stola mužčinoj
hit table.GEN man.INS
Intended: ‘the hit the table by the man’
- b. *udar mužčinoj
hit man.INS
Intended: ‘the hit by the man’

4.2 Binding in Russian event nominals and instrumental agents as VoiceP specifiers/adjuncts

Contrast in binding similar to the one presented in (3)–(5) is observed also with instrumental agents in event nominal phrases, as shown in (16) and (17).¹⁸

- (16) a. *Ivanovo_i narušenje pravil ogorčacet ego_i.
Ivan’s violation rules.GEN distresses him
Intended: ‘Ivan_i’s violation of the rules distresses him_i.’
- b. Narušenje pravil Ivanom_i ogorčacet ego_i.
violation rules.GEN Ivan.INS distresses him
‘The violation of the rules by Ivan_i distresses him_i.’
- (17) a. *Ivanovo_i ubijstvo Viti gluboko opečalilo ego_i.
Ivan’s murder Vitya.GEN deeply saddened him
Intended: ‘Ivan_i’s murder of Vitya deeply saddened him_i.’
- b. Ubijstvo Viti Ivanom_i gluboko opečalilo ego_i.
murder Vitya.GEN Ivan.INS deeply saddened him
‘The murder of Vitya by Ivan_i deeply saddened him_i.’

(16a) and (17a) are ungrammatical, while (16b) and (17b) are grammatical.

¹⁸An anonymous reviewer pointed out that in Serbo-Croatian the postnominal doubled genitive can co-refer a personal pronoun as shown in (i) below.

- (i) Snimak požara [Emira Kusturice]_i napravio je od njega_i reportersku
record fire.GEN Emir.GEN Kusturica.GEN made AUX from him reporter
zvezdu.
star
‘The shot of the fire by [Emir Kusturica]_i made him_i star reporter.’

Unlike Serbo-Croatian, Russian bans doubled genitives as indicated in (11), so I have nothing further to say on this topic.

Applying the structure of event nominals in Figure 6 to (16a) and (16b), the structure of (16a) and (16b) is illustrated in Figure 7 and Figure 8. I assume that the instrumental agents are specifiers/adjuncts to VoiceP as the genitive external arguments in type 3 nominals.¹⁹

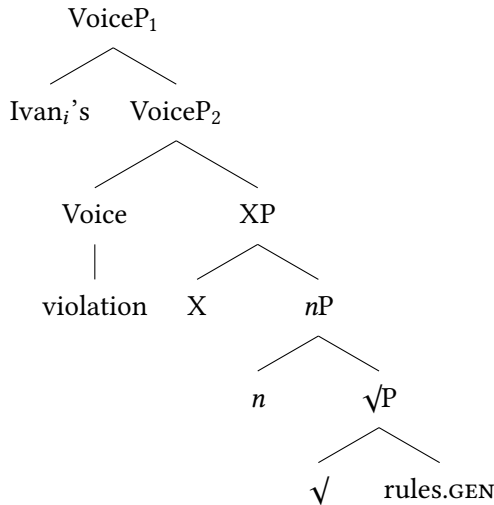


Figure 7: The structure of (16a)

As mentioned above, Schoorlemmer (1998) pointed out that only CEN can have the instrument agentive phrase. That is, X Agrees not with the specifier/adjunct but with the internal argument since X does not c-command the specifier/adjunct but only the internal argument, even under Kayne's (1994) definition of c-command. Thus, the specifier/adjunct cannot be genitive.

In Figure 7 and Figure 8, both the instrumental agents 'Ivan.INS' and the possessive adjective 'Ivan's' do c-command the objects *ego* 'him' since the VoiceP₁ and VoiceP₂ are segments. In other words, this structure correctly predicts the ungrammaticality of (16a), but it also incorrectly predicts (16b) to be ungrammatical. Thus, the contrast in (16) cannot be captured with Figure 7 and Figure 8. Something needs to be added to address the observed contrast in grammaticality.

I assume that instrumental agents are introduced as PP with a silent P head as in Figure 9. With this extra layer of structure there is no Condition B violation since the PP blocks the instrumental agent's c-commanding the object.

¹⁹This position can explain the fact that type 1 event nominals cannot have instrumental agents as shown in (15).

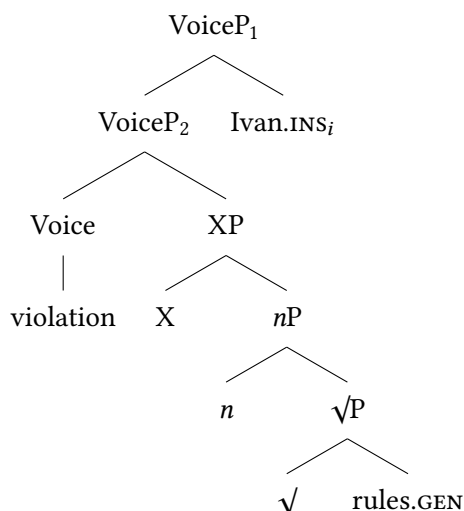


Figure 8: The structure of (16b)

5 Generalized case realization requirement

To capture the contrast in (16)–(17), I assumed that instrumental agents are introduced by the silent P. However, it is undesirable to utilize an abstract element with no evidence. Thus, I need some evidence except the contrasts in (16)–(17). In this section, I demonstrate that assuming the silent P in instrumental agent phrases is a consequence of GCRR, proposed by Horvath (2014).

5.1 GCRR in Serbo-Croatian

Horvath (2014) addressed the distribution of indeclinable nouns in Serbo-Croatian. As shown in (18), the indeclinable name *Miki* is ungrammatical although the declinable name *Larisa* is grammatical in the oblique environment.

- (18) a. Divim se {Larisi / *Miki}.
 admire.1SG REFL Larisa.DAT Miki
 ‘I admire Larisa/Miki.’
- b. Ponosim se {Larisom / *Miki}.
 be.proud.1SG REFL Larisa.INS Miki
 ‘I am proud of Larisa/Miki.’

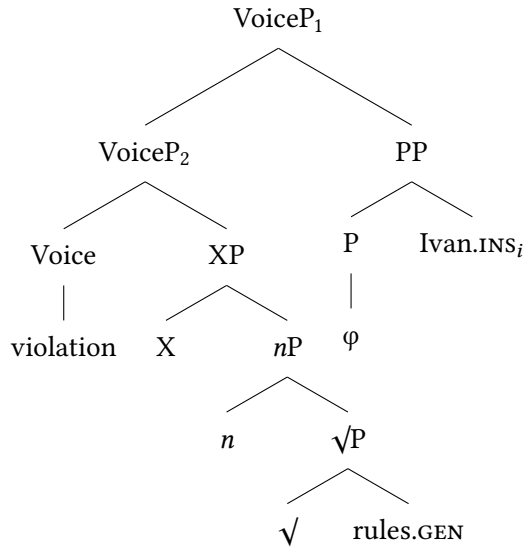


Figure 9: The modified version of the structure of (16b)

- c. Oduševjena sam {Larisom / *Miki}.
 impressed.PTCP.F AUX.1SG Larisa.INS Miki
 'I am impressed by Larisa/Miki.' (Horvath 2014: 121)

The indeclinable name is grammatical with the declinable possessive *moj* 'my' or adjective *lep* 'beautiful', but it is ungrammatical without them or with the indeclinable adjective *braon* 'brown', as in (19).

- (19) a. Divim se *(mojoj) Miki.
 admire.1SG REFL my.DAT.SG Miki
 'I admire (my) Miki.'
- b. Oduševjena sam *(mojom) Miki.
 impressed.SG.F AUX.1SG my.INS.SG Miki
 'I am impressed by (my) Miki.'
- c. Divim se {*braon / lepoj} Miki.
 admire.1SG REFL brown beautiful.DAT.SG Miki
 'I admire {brunette/beautiful} Miki.' (Horvath 2014: 121)

In addition, the indeclinable name is grammatical with P even without the declinable possessive or adjective as illustrated in (20).

- (20) a. On je trčao prema (lepoj) Miki.
he AUX.3SG run.PTCP.SG towards beautiful.DAT.SG Miki
'He ran towards (beautiful) Miki.'
- b. Dolazim sa (mojom) Miki.
come.1SG with my.INS Miki
'I am coming with (my) Miki.'
- c. Razgovarali smo o (mojoj) Miki.
talk.PTCP.PL AUX.1PL about my.LOC Miki
'I talked about (my) Miki.'
- (Horvath 2014: 122–123)

Accepting Pesetsky's (2013) theory of Case, Horvath (2014) generalized these complicated phenomena of Serbo-Croatian indeclinable nouns in the form of GCRR shown in (21).

- (21) *Generalized Case Realization Requirement (GCRR)*
Oblique cases must be overtly realized by some element of the ASSIGNMENT DOMAIN (where assignment domain consists of the assigning head and the assignee – its noun phrase complement). (Horvath 2014: 125)

According to GCRR, the sentences with the indeclinable name *Miki* in (18) are ungrammatical since no element in the assignment domain overtly realizes oblique cases. As for (19), sentences are grammatical even with the indeclinable name *Miki* if the declinable possessive *moj* 'my' or adjective *lep* 'beautiful' overtly realizes oblique cases. However it is ungrammatical without them or with the indeclinable adjective *braon* 'brown' because of the absence of overt realization of oblique cases. In the case of (20), each P *prema* 'towards,' *sa* 'with,' *o* 'about' manifests oblique cases and thus the sentences are grammatical even if there is no declinable possessive or adjective.

5.2 GCRR in Russian

There are also examples supporting the application of GCRR in Russian.²⁰

²⁰I consulted four Russian native speakers in their twenties for acceptability judgments on (22). All speakers found (22b) unacceptable, but there was variation among speakers on (22a) and (22c); three consider them acceptable (but unnatural) and the other considers them unacceptable. The speakers accepting (22a) also accept (22c) and *vice versa*. What is important here is that some speakers accept (22a), (22c) and that a clear difference in acceptability can be found between (22a)/(22c) and (22b).

- (22) a. ? Professor priexal v Moskvu s okolo pjati studentov.
 professor arrived to Moscow with about five.GEN students.GEN
 ‘Professor arrived at Moscow with about five students.’
- b. * Professor rukovodit okolo pjati studentov.
 professor supervise about five.GEN students.GEN
 Intended: ‘Professor supervises about five students.’
- c. ? Professor rukovodit okolo pjat’ju studentami.
 professor supervise about five.INS students.INS
 ‘Professor supervises about five students.’

Sentence (22a) is grammatical with P requiring the instrumental case *s* ‘with’. In this case, there is an overt P and it realizes the instrumental case in the assignment domain. However, (22b), without manifestations of the instrumental case, is ungrammatical. This is because neither P nor its complement overtly realizes the instrumental case. In addition, (22c) is grammatical since the complement *pjat’ studentov* ‘five students’ is declined to bear the instrumental case, although the preposition *okolo* ‘about’ requires its complement in genitive Case. The (un)grammaticality of these sentences are predicted by GCRR, which means that GCRR is valid not only in Serbo-Croatian but also in Russian.

Pesetsky (2013) points out examples like (22). As shown in (23), without manifestations of the instrumental case, the sentences show low acceptability and with P requiring the instrumental case or with an instrumental adjective, the sentences are grammatical.

- (23) a. Ja čital *Po kom zvonit kolokol*.
 I read *For Whom the Bell Tolls*
 ‘I read *For Whom the Bell Tolls*.’
- b. ?? Ja vosxiščajus’ *Po kom zvonit kolokol*.
 I admire *For Whom the Bell Tolls*
 ‘I admire *For Whom the Bell Tolls*.’
- c. ? Ja vosxiščajus’ zamečatel’nym *Po kom zvonit kolokol*.
 I admire marvelous.INS *For Whom the Bell Tolls*
 ‘I admire the marvelous *For Whom the Bell Tolls*.’
- d. Pomnju, kak diko rydala nad *Po kom zvonit kolokol*.
 remember.1 how wildly cried.SG.F over *For Whom the Bell Tolls*
 ‘I remember how wildly I cried over *For Whom the Bell Tolls*.’

(Pesetsky 2013: 132)

In addition, if GCRR is active, it is predicted that (24a) becomes ungrammatical when the declinable name *Ivan* is replaced with an indeclinable name, as in that case there is no manifestation of the instrumental case. This is confirmed in (24b), where the indeclinable name *Šmidt* is used.

- (24) a. Narušenie pravil Ivanom_i ogorčae ego_i.
violation rule.GEN Ivan.INS distresses him
'The violation of the rules by Ivan_i distresses him_i.'
- b. *Narušenie pravil Šmidt_i ogorčae ego_i.
violation rule.GEN Schmidt distresses him
Intended: 'The violation of the rules by Schmidt_i distresses him_i.'

Thus there are reasons to assume the existence of a silent P, which introduces instrumental agent as proposed in Figure 9 since GCRR is (at least roughly) valid in Russian as mentioned above.

6 Binding out of PP

6.1 Functional and lexical prepositions

Yadroff & Franks (2001) proposed a distinction between FUNCTIONAL PREPOSITIONS (functional P) such as *u* 'at', *k* 'toward', *bez* 'without' and LEXICAL PREPOSITIONS (lexical P) such as *okolo* 'around', *blagodarja* 'thanks to', *otnositel'no* 'with respect to' in various grammatical respects as illustrated in Table 1.

To capture the various differences between functional P and lexical P, Yadroff & Franks (2001) assume two different syntactic structures for each type of P. Figure 10 and Figure 11 give their structure of the two PPs in (25).

- (25) a. k ženščinam b. blagodarja ženščinam
towards women.DAT thanks.to women.DAT
'towards women' 'thanks to women'

"X" is used to indicate that here, *blagodarja* 'thanks to' is a bleached lexical item, which lacks a functional structure.²¹

²¹Please see Yadroff & Franks (2001) for more detail.

Table 1: Functional and lexical prepositions (Yadroff & Franks 2001: 70)

| Functional prepositions | Lexical prepositions |
|---|--|
| <i>Phonology</i> | |
| A. Unstressed | A. Stressed |
| B. Monosyllabic | B. Polysyllabic |
| <i>Morphology</i> | |
| C. Monomorphemic | C. Often polymorphemic or compound |
| D. Prothetic <i>n-</i> before 3rd-person pronouns | D. No prothetic <i>n-</i> |
| <i>Syntax</i> | |
| E. Object is obligatory | E. Object may be optional |
| F. Approximative inversion yields N before P | F. Approximative inversion yields P before N |
| G. Negative particle <i>ni</i> does not intervene | G. <i>Ni</i> intervenes |
| H. May be doubled in colloquial language | H. Cannot be doubled |
| I. May be lexically selected | I. Cannot be lexically selected |
| J. Allow binding out of PP | J. Block binding out of PP |
| K. No intercalating particles | K. Intercalating particles |
| L. May govern multiple cases | L. Govern one specific case |
| <i>Semantics</i> | |
| M. Meaning abstract (hence polysemous) | M. Meaning concrete (therefore fixed) |

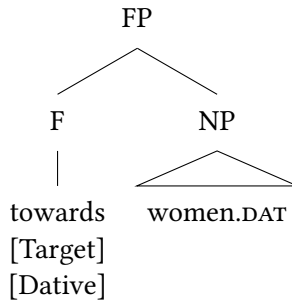


Figure 10: The structure of (25a) (Yadroff & Franks 2001: 77)

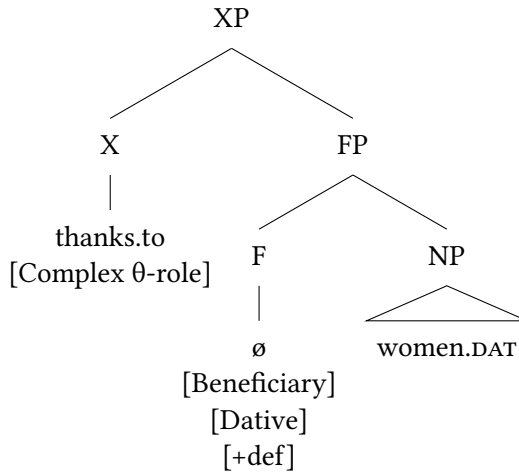


Figure 11: The structure of (25b) (Yadroff & Franks 2001: 78)

6.2 Binding possibility out of lexical PP

I showed that a silent P is required to capture the contrasts in (16)–(17) and that assuming a silent P is valid as shown in the data regarding GCRR in Russian in §5.

However, binding out of PP is not necessarily blocked as, for example, Yadroff & Franks (2001) and Bailyn (2010) point out. With regard to binding possibility

(J in Table 1), a functional P allows binding out of PP as shown in (26a) and a lexical P blocks binding out of PP as in (26b).²²

- (26) a. U ètogo èloveka_i vseгда est' svoi_i original'nye idei.
 at this person always be self's original idea
 'In that person's head there are always his own original ideas.'
- b. * Okolo ètogo èloveka_i vseгда est' svoi_i original'nye idei.
 around this person always be self's original idea
 Intended: 'Around that person there are always his own original ideas.'

(Yadroff & Franks 2001: 74)

Given the grammaticality of (26a), the silent P (\emptyset) is a lexical P. Therefore, the structure of (16b), shown in Figure 9, should be modified to Figure 12.²³

7 Conclusion

In this paper, I have argued that instrumental agents in Russian are introduced by a silent (lexical) P. As I have shown, this PP layer blocks binding of instrumental agents outside the event nominal, which is otherwise possible for agents introduced as possessors. My analysis which assumes Russian event nominals (or noun phrases more generally) lack the DP layer also offers (at least partial) support to the idea that GCRR is active in Russian.

²²Yadroff & Franks (2001) point out that there is also a similar contrast in English.

- (i) a. John spoke to [Bill and Mary]_i about each other_i's birthdays.
 b. * John spoke about [Bill and Mary]_i in each other_i's houses.

(Yadroff & Franks 2001: 74)

Bailyn (2010) also points out data similar to (26). Binding out of PP *u Petrovyx* 'at the Petrovs' is allowed.

- (ii) U Petrovyx_i byla svoja_i komnata.
 at the.Petrovs was self's.NOM room.NOM
 'The Petrovs had their own room.'

(Bailyn 2010: 14)

²³There are two X(P)s in this tree. However, note that it is not guaranteed that they are the same projection. The "X" whose sister is *nP* represents a genitive assigner as described in Miyauchi & Ito (2016) and Miyauchi (to appear). The "X" whose sister is FP is used to indicate that the silent P is a bleached lexical item (Yadroff & Franks 2001).

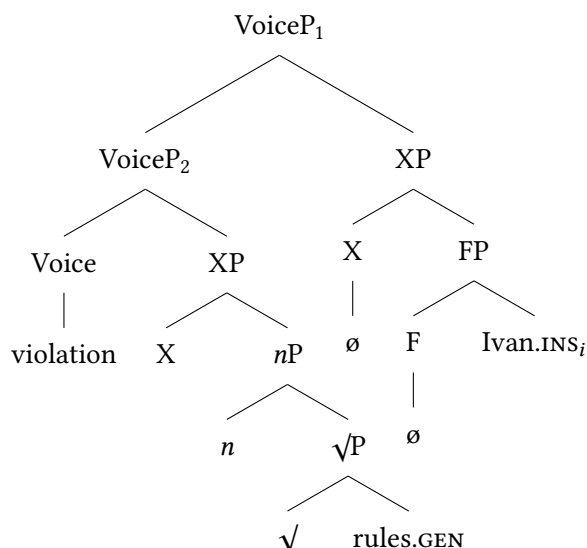


Figure 12: The structure of (16b)

Abbreviations

| | | | |
|------|-------------------------|---------|-----------------------------|
| 1 | first person | INF | infinitive |
| 3 | third person | INT-ARG | internal argument |
| ACC | accusative | INS | instrumental |
| AG | agent (θ -role) | LOC | locative |
| AUX | auxiliary | PIC | phase impenetrability |
| CEN | complex event nominals | | condition |
| DAT | dative | PL | plural |
| F | feminine | POSS | possessor (θ -role) |
| GCCR | generalized case | PTCP | participle |
| | realization requirement | REFL | reflexive |
| GEN | genitive | SG | singular |

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