

'Head of an XP' fragments in Russian

Фрагментные ответы, состоящие из вершины проекции XP, в русском языке

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Published online: 27 June 2019 © Springer Nature B.V. 2019

Abstract This paper examines a certain type of fragment answers in Russian, namely fragments that consist of a single head of a noun or a verb phrase. Invoking arguments from Vera Gribanova's works on verb head movement and some novel data on noun head movement in Russian, I argue that these constructions are derived not by focus movement, as was previously proposed for fragment answers by Jason Merchant, but by the stranding of the phrase's head. I show that the constructions in question present an argument in favor of the alternative theory of fragment derivation, proposed in Andrew Weir's works, and help us reformulate the MaxElide constraint on fragment answers.

Аннотация В статье рассматривается определенный вид фрагментных ответов в русском языке, а именно фрагменты, состоящие из вершины именной или глагольной группы. Опираясь на аргументы Веры Грибановой о передвижении глагольных вершин в русском и на новые данные, касающиеся передвижения именных вершин, мы защищаем предположение о том, что описываемые конструкции образуются с помощью стрэндинга (независимого передвижения) вершин составляющих, а не с помощью фокусного передвижения, как ранее предполагалось в работах Джейсона Мерчанта. Мы также демонстрируем, что исследуемые конструкции представляют новый аргумент в пользу альтернативной теории образования фрагментов, представленной в работах Эндрю Вейра, и позволяют нам более точно сформулировать принцип MaxElide для фрагментных ответов.

I would like to thank Prof. Ekaterina Lyutikova for the continuous support of my work on this topic. This study is a part of the Russian Scientific Foundation project 18-18-00462 "Communicative-syntactic interface: typology and grammar" at the Pushkin State Russian Language Institute.

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1 Introduction

Fragment answers (fragments) are short completed phrases, that typically consist of a constituent smaller than a full clause. In this article I will regard several different constructions as fragments. (1a) demonstrates the most common type of fragments, a fragment answer to a certain question. The fragments in (1b) and (1c) are responses to a verdictive phrase, the former being a contrastive response and the latter being a clarifying one; finally, in (1d) a fragment with no linguistic antecedent is shown:

```
a. A: Kto
                                 Vasju?
(1)
                    ljubit
                    love.3sg.prs
                                 Vasja.ACC
             'Who likes Vasja?'
         B: Maša.
             Maša
             'Maša (does).'
      b. A: Maša
                     liubit
                                   Petiu.
             Maša
                                   Petja.ACC
                     love.3sg.prs
             'Maša likes Petja.'
         B: Net, Lena.
             nο
                    Lena
             'No. Lena (does).'
      c. A: Govoriat,
                          čto
                                Maša
                                        vljubilas'
             say.3pl.prs
                                Maša
                         that
                                        fall.in.love.sg.pst.f
                   odnogo
                              svoego
                                        odnoklassnika.
                              self.ACC
                                        classmate.ACC
                   one.acc
             'They say that Maša fell in love with one of her classmates.'
         B: Da,
                          Vasju.
                   into Vasja.ACC
             'Yes, with Vasja.'
      d. Adressing a waiter
              Odno kofe,
                                  požalujsta.
                      coffee.acc
                                  please
              'One coffee, please.'
```

According to the hypothesis presented in Merchant's seminal paper (2004), fragment answers are derived in two steps: the phrasal movement of the remnant out of the clause to the specifier of the FP (which supposedly is a focus projection) and the following ellipsis (deletion on the PF level) of the rest of the clause. I will address this approach as the 'movement + ellipsis' approach. (2) shows the derivation of a fragment answer in English:

```
(2) a. A: Who did she see?
B: John.
B': She saw John.
```

¹The following abbreviations have been used in this paper: ACC—accusative; DAT—dative; F—feminine; GEN—genitive; INS—instrumental; M—masculine; NEG—negation; NOM—nominative; PL—plural; PREP—prepositional case; PRS—present tense; PST—past tense; SG—singular; Adv—adverb; DP—determiner phrase; FP—functional phrase; LF level—logical form level; n—light noun; N head—noun head; nP—light noun phrase; NP—noun phrase; NPI—negative polarity item; Num—number; PF level—phonetic form level; PP—preposition phrase; R-expression—referential expression; TP—tense phrase; VP—verb phrase; vP—light verb phrase.



Merchant's hypothesis is based on two sets of empirical observations. The facts of the first set demonstrate that the form of a constituent in a fragment answer matches the form of the same constituent in a full answer. This entails that the remnant appears in the derivation as a part of a full sentence. For instance, the case form of the DP in a fragment must be the same as the form of the DP in a full sentence:

(3)A: Komu Maša podarila fotoapparat? Maša give.sg.pst.f camera.ACC 'To whom did Maša give a camera?' B: Pete || *Petiu | *Petej. Petja.dat || Petja.acc || Petja.ins 'To Petja.' B': Maša podarila || *Petiu | *Petei. fotoapparat Pete Maša give.sg.pst.f camera.ACC || Petja.acc || Petja.ins Petja.dat

Furthermore, in fragments, anaphoric elements must obey the principles of the Binding Theory, just like their correlates in non-elided clauses do. (4) demonstrates that anaphors and pronominals in fragments must obey Chomsky's Principles A and B respectively, while (5) shows that R-expressions in fragment answers cannot violate Principle C:

(4) A: Kogo udaril Miša;? who.acc hit.sg.pst.m Miša 'Who did Miša hit?' $Ego_{*i/i}$ || $sebja_{i/*i}$. he ACC || self.acc 'Him. || Himself.' B': Miša_i udaril $\|$ sebja_{i/*j}. ego*i/i hit.sg.pst.m he.acc || self.acc 'Miša hit him || himself.'

'Maša gave a camera to Petja.'

(5) A: Gde živet? oni where live.3sg.prs he 'Where does he live?' B: *Na dače Kirillai. Kirill.gen country.house.prep 'At Kirill's country house.' B': *Oni živet na dače Kirilla_i. he live.3sg.prs at country.house.prep Kirill.gen 'He lives at Kirill's country house.'

Observations of the second kind demonstrate that fragments undergo A'-movement out of the ellipsis site. According to Merchant (2004), this is evident from the fact that some elements that are not able to undergo A'-movement cannot be used in a fragment answer. One proof of that sort is connected to the preposition stranding; it is permissible in fragment answers in a



particular language only if it is acceptable in full sentences as well. That is why it is possible to strand a preposition in English fragments, but not in Russian ones:²

- (6) A: With whom does Mary live?B: (With) her parents.
- (7) A: S kem živet Nina?

 with who.prep live.3sg.prs Nina

 'Who does Nina live with?'

 B: S roditeliami. || *Roditeliami.
 - $\begin{array}{lll} B: & S & roditeljami. & \|*Roditeljami. \\ & with & parents. \mbox{{\tt PREP}} & \| & parents. \mbox{{\tt PREP}} \\ & `With \mbox{{\tt her parents.'}} \end{array}$
- (8) A: Gde ležat jabloki?

 where lay.3pl.prs apple.pl

 'Where are the apples?'

 B: Na stole. || *Stole.

 on table.prep || table.prep

 'On the table.'

Having presented these basics facts about fragment answers, I will turn to the main topic of this paper. I will consider one particular type of fragments in Russian, examples of which are presented in (9)–(10). The specific property of these constructions is that they consist of a head of a VP (9) or a DP (10):

- (9) A: Čto on sdelal so svoej rukopis'ju?

 what he do.sg.pst.m with self.ins manuscript.ins

 'What did he do with his manuscript?'
 - B: Sžeg.

burn.sg.pst.m

'He burned it.'

- (i) A: Protiv čego vystupili studenty?

 against what.GEN oppose.PL.PST student.PL

 'What did the students oppose?'
 - B: (Protiv) fan-zony u MGU.

 against fan-zone.gen near MSU

 'They opposed the fan-zone near MSU.'
- (ii) A: Blagodarja komu Ivanov vyžil v tom boju? thanks.to who.dat Ivanov survive.sg.pst.m in that.prep battle.prep 'Thanks to whom did Ivanov survive in that battle?'
 - B: (Blagodarja) svoemu sosluživcu. thanks.to self.dat colleague.dat 'Thanks to his colleague.'

A similar phenomenon has been noted in sluicing constructions (Ionova, A. A., *Éffekt zavisanija predloga pri sljusinge v russkom jazyke*. Talk given at the conference Tipologija morfosintaksičeskix parametrov i GeNSLing, 12–14 oktjabrja 2016 g. Institut sovremennyx lingvističeskix issledovanij MPGU i Institut jazykoznanija RAN. Moskva). The researcher proposes that the possibility of omitting prepositions is due to their prosodic structure; while the stranding of a preposition that does not form a free phonetical word is not possible, the stranding of a separate phonetical word is permissible. It is likely that the same requirements hold true in the case of fragments.



²That fact holds for the prepositions that consist of 0 or 1 syllables. However, if the preposition contains more than 1 syllable, it can be omitted in a fragment answers:

```
(10) A: Uvarov byl drugom Puškina?

Uvarov be.sg.pst.m friend.ins Puškin.gen
'Was Uvarov a friend of Puškin's?'

B: Net, vragom.

no enemy.ins
'No, he was an enemy of his.'
```

It was previously noted by Testelec³ that these kinds of fragments might provide an argument against Merchant's hypothesis for the following reason. It is important to remember that Merchant supposed that fragment remnants undergo focus movement to the left periphery of the clause, i.e. they undergo A'-movement. It is a given fact, that only full constituents can undergo this kind of movement. Thus, we would expect that heads of projections don't form a felicitous fragment. That prediction is not borne out in Russian, as shown in the examples above.

There are two possible ways of how one can account for this property of Russian fragments. One possible hypothesis would be that fragments are derived by A'-movement, but an additional ellipsis of the head's arguments occurs after the remnant moves out of the TP. Alternatively, one could suggest that there is a special kind of movement in Russian, that can move heads independently and that this type of movement is the one that takes place in the constructions in question. In this paper I will argue in favor of the latter analysis.

The paper is constructed as follows. In Sect. 2 I will provide arguments in favor of stating that the 'head of an XP' fragments are derived by the stranding of a verb or a noun head. Section 3 discusses what the Russian data tells us about fragment derivation in general. In Sect. 4 I discuss the MaxElide constraint on fragment answers. Section 5 presents conclusive remarks.

2 Derivation of the 'head of an XP' fragments

This section is devoted to the issue of the syntactic derivation of the type of fragment answers in question. I will start by presenting Vera Gribanova's arguments in favor of stating that short verbal responses in Russian involve verb-stranding. Next I will argue that a similar type of movement is involved in the derivation of the short nominal responses.

2.1 Derivation of fragments consisting of a verb head

In her papers, Gribanova (2013a, 2013b, 2017) argues that fragments like the one presented in (9), along with a number of similar constructions, are derived by the independent movement of the verb head to the left periphery of the clause (namely, to the head Pol⁴). The proposed derivation of such phrases is shown in (11):



³Testelec, Ja. G., *Ellipsis v russkom jazyke: teoretičeskij i opisatel'nyj podxody*. Talk given at the conference Tipologija morfosintaksičeskix parametrov. Moskovskij gosudarstvennyj gumanitarnyj universitet imeni M. A. Šoloxova, 5 dekabrja 2011 g. Moskva.

⁴See e.g. Gribanova (2017, pp. 1081, 1085, etc.).

The arguments in favor of that point of view are the following. First, both pre-verbal subjects and the post-verbal ones are unacceptable in answers to polar questions. This fact indicates that such fragments represent a case of TP ellipsis, a type of ellipsis large enough to subsume all the arguments of the verb, including the surface structure subject:⁵

```
(12) A: Maša
                   včera
                              otpravila
                                            pis'mo
                                                          Moskvu
           Maša
                   yesterday
                              send.sg.pst.f
                                            letter
                                                          Moscow
                                                                     and
                              Piter?
           telegrammu
           telegram
                              Piter
           'Did Masha send a letter to Moscow, and a telegram to St. Petersburg
           yesterday?'
      B: (Da), (#/?ona)
                             otpravila
                                           (*ona).
                      she
                             send.sg.pst.f
           yes
                                              she
           'Yes, she did.'
                   (#/?ona)
      B': (Net),
                              ne
                                    otpravila
                                                  (*ona).
                       she
                              NEG
                                    send.sg.pst.f
                                                    she
           'No, she didn't.'
                                                           (Gribanova 2017, p. 1102, ex. 50)
```

Secondly, Gribanova (2013a) points out that the verb head can strand from conjunctions and disjunctions. Within the framework of Gribanova's theory, this is also expected, because TP ellipsis is large enough to be able to elide fairly large portions of the sentence, composed of multiple constituents:

```
(13) A: Kažetsja,
                       čto
                             Anja
                                     položila
                                                  ručku
                                                                 stol.
                                                            na
                       that
                             Anja
                                                                 table
          seems
                                     put.sg.pst.f
                                                  pen.acc
                                                            on
                knigu
                            na
                                stul.
                book.acc
                           on
                                 chair
          'It seems that Anja put the pen on the table and the book on the chair.'
      B: Net.
                                     (*i).
                 ne
                        položila
                       put.sg.pst.f
                                       and
          nο
                 NEG
          'No, she didn't.'
                                                       (Gribanova 2013a, pp. 147–148, ex. 3)
```

Thirdly, short verbal responses involve a restriction in mismatching the stranded verb and the antecedent verb. For example, (14) demonstrates, that the verb stems cannot mismatch even if the verbs are synonymous. According to Gribanova (2017), this also suggests that ellipsis is involved and that the ellipsis site is large enough to include the original positions associated with the verb stem (i.e. it is a VP or larger):

```
(14) A: Paša
                                  knigu
                                                 biblioteke.
                   poterial
           Paša
                                 book.acc
                                                 library.PREP
                                                               and
                   lose.sg.pst.m
                                             in
                               stolovoj?
           žurnal
                           v
                          in
                               cafeteria.PREP
           'Did Paša lose a book in the library, and a magazine in the cafeteria?'
      B: *Da.
                  posejal.
                  lose.sg.pst.m
           yes
           'Yes, lost.'
                                                            (Gribanova 2017, p. 1104, ex. 52)
```

⁵The reader might notice that in all the examples from Gribanova's papers, as well as in my examples that are analogous to hers, the antecedent phrase includes a coordination of VPs. This is necessary to be sure that we are dealing with verb stranding and not with object drop, since, as Gribanova (2013b) points out, both operations are active in Russian, with only the latter being restricted inside islands.



Moreover, Gribanova's account might be applicable to other types of verbal answers, in which the remnant is an auxiliary verb or a lexical verb in an analytical verb form. The tests for these types of verbs, analogous to the ones in (12) and (13), are presented in (15) and (16):

```
(15) a. A: Ty
                   budeš
                             pisat'
                                        stixotvorenie
                                                        Ole
                   will.2sg
                             write.inf
                                                        Olia.dat
             you
                                        poem.acc
                                                                  and
                        Mile?
             pesnju
             song.acc
                        Mila.dat
             'Are you going to write a poem for Olja and a song for Mila?'
         B: (Da).
                     (#ia)
                            budu
                                       (*ja).
                             will.1sg
                                         Ι
             'Yes, I am going to.'
         B': (Net),
                      (#ja)
                                    budu
                                              (*ja).
                              ne
                              NEG
                                    will.1sg
                                                I
              'No, I am not going to.'
      b. A: Anja budet
                               est'
                                       ikru
                                                       Kannax
             Anja
                     will.3sg
                               eat.inf
                                       caviar.ACC
                                                   in
                                                       Cannes.PREP
                   pit'
                                                   Pariže.
                              šampanskoe
                   drink.INF
                              champagne.ACC
                                                  Paris.PREP
                                              in
             'Anja will eat caviar in Cannes and drink champagne in Paris.'
         B: Net.
                    ne
                          budet
                                    (*i).
                    NEG will.3sg
             nο
                                      and
             'No, she won't.'
(16) a. A: Ty
                   budeš
                             žarit'
                                     kuricu?
                   will.2sg
                             fry.inf
                                     chicken.ACC
             'Are you going to fry the chicken?'
         B: Net.
                    (#ja
                           budu)
                                     varit'
                                              (*ja
                                                    budu).
                           will.1sg
                                                     will.1sg
                                     boil.inf
             'No, I am going to boil it.'
                     budet
                               žarit'
                                                    doma
      b. A: Ania
                                       kuricu
                                                    at.home
             Ania
                     will.3sg
                               fry.inf
                                       chicken.ACC
                   utku
                              na
                                   dače.
                   duck.acc
                                   country.house.prep
                              at
             'Anja is going to fry the chicken at home and the duck in the country house.'
         B: Net.
                    ne
                          žariť
                                   (*i).
                    NEG
                          fry.inf
             'No, she isn't going to fry it.'
```

I should note, that alternative analyses have been proposed for the same construction by other researches. In particular, John F. Bailyn argues in his 2017 paper that phrases like (9) are derived by argument ellipsis (and the pro-drop of the verb's subject). A thorough comparision of Gribanova's and Bailyn's accounts goes beyond the scope of the current work. Therefore, I simply note that I will rely on Gribanova's theory, because it provides an account for a wider set of constructions and has been further supported by additional data.⁶

⁶See also R. Abramovitz's talk *Verb-stranding verb phrase ellipsis in Russian: evidence from unpronounced subjects* given at the 27th Annual Meeting of Formal Approaches to Slavic Linguistics, 4–6 May 2018, Stanford.



2.2 Derivation of the fragments consisting of a noun head

Taking the analysis of short verbal responses into account, one might wonder whether it is reasonable to assume that short nominal responses can be derived by stranding as well. In order to figure this out, we must first check whether this kind of movement is available in other contexts.

Let us first address the basic structure of a Russian DP with arguments. Ljutikova (2014) argues that all the arguments of object nouns appear in the lexical noun's projection. Next the head of the NP undergoes a movement to the upper projection X (which is supposedly a Num projection). If the internal argument of the noun is non-genitive, only the N head moves (17a, b); otherwise, due to the language-specific restriction on the genitive relation violation, stated in Zaliznjak and Padučeva (1979), the whole NP moves to the XP (17c):

```
(17) a. [_{XP}]
                x \in \text{indaut} + n + X  [nP professora n
                                                            [NP]
                                                                   <del>xėndaut</del>
                                                                                           lekcii]]]]
                 handout
                                           professor.gen
                                                                   handout
                                                                                     for
                                                                                           lecture.DAT
           'professor's handout for the lecture'
                 pis'mo+n+X [nP
                                          Bakunina n
                                                                pis'mo
                                                                                  sestram]]]]
                                                          [NP
                                                                           [DP
                 letter
                                          Bakunin.GEN
                                                                 letter
                                                                                  sister.dat.pl
           'Bakunin's letters to the sisters'
       c. [XP [NP
                     konspekt [DP
                                        lekciill X
                                                      [_{nP}]
                                                            brata n
                                                                          [NP]
                                                                                konspekt
                     notes
                                        lecture.gen
                                                            brother.gen
                                                                                notes
                     [DP lekeii]]]]
                          lecture.gen
           'brother's lecture notes'
                                                                           (Ljutikova 2014, p. 139)
```

In case of eventive nominals, on the other hand, the verb head obligatorily incorporates into the noun head. Unlike the object nominals, eventive nominals do not move to the X projection at all:

```
(18)
                torgovlja+v+N [vP
                                        angličan
      a. [<sub>NP</sub>
                                                            torgovlja+v [VP
                                                                                torgovlja
                trade
                                        Englishmen.GEN.PL
                                                                                trade
                opiumom]]]]
          [DP
                opium.ins
          'Englishmen's opium trade'
                ispolnenie+v+N [_{vP}
                                         ispolnenie + \nu [VP
                                                               ispolnenie [DP
                                                                                 arii]]]]
                performance
                                         performance
                                                               performance
                                                                                 aria.gen
          'aria performance'
                                                                       (Ljutikova 2014, p. 140)
```

Thus, it is obligatory for noun heads to move from their *in situ* position (with the only exception being object nominals with an internal genitive argument, which move together with their argument). That suggests that stranding of nominal heads might be possible in general.

Let us consider whether this movement is possible in full, non-fragment sentences. In Russian, constructions like (19)–(25) where the noun's arguments are omitted are indeed possible. We can positively state that the arguments were indeed omitted (i.e. they are present in the structure at least at the early steps of the derivation) based on the fact that all the sentences have a reading, which implies that the elided arguments of the noun in the consequent clause are identical to the arguments of the nouns in the antecedent clause. This holds for the cases, in which nominals have only an external argument, only an internal one or both arguments at the same time. Moreover, this interpretation is more accessible for most of the speakers I have consulted:



- (19) Eventive nominal, internal argument omitted
 - Tvoe opisanie Gollandii xuže, čem moe opisanie. your description Holland.gen worse than my description
 - 'Your description of Holland is worse than mine.'
 - a. = Your description of Holland is worse than my description of Holland.
 - E. Your description of Holland is worse than my description (of an unstated entity).
- (20) Object nominal, internal (genitive) argument omitted⁷
 - Ty pogovoril s tremja issledovateljami kazaxskogo,
 - you talk.sg.pst.m with three.ins researcher.ins.pl Kazax.gen
 - a ja pogovorila s dvumja issledovateljami.
 - and I talk.sg.pst.f with two.ins researcher.ins.pi.
 - 'You talked to three researchers of the Kazakh language, and I talked to two researchers.'
 - a. = You talked to three researchers of the Kazax language, and I talked to two researchers of Kazax.
 - b. = You talked to three researchers of the Kazax language, and I talked to two researchers (of an unstated subject of study).
- (21) Object nominal, internal (oblique) argument omitted
 - Snačala Petja sžeg dva pis'ma sestram first Petja burn.sg.pst.m two.acc letter.gen.sg sister.dat.pl
 - a potom sžeg ešče tri pis'ma.
 - and then burn.sg.pst.m also three.acc letter.gen.sg
 - 'First Petja burned two letters to the sisters, and then he burned three more letters.'
 - a. = First Petja burned two letters to the sisters, and then he burned three more letters to the sisters.
 - b. = First Petja burned two letters to the sisters, and then he burned three more letters (to an unstated addressee).
- (22) Eventive nominal, external argument omitted
 - Ty videl dva vystuplenija Kirkorova
 - you see.sg.pst.m two.acc performance.gen.sg Kirkorov.gen
 - a ja videla tri vystuplenija.
 - and I see.sg.pst.f three.acc performance.gen.sg
 - 'You saw two of Kirkorov's performances, and I saw three performances.'
 - a. = You saw two of Kirkorov's performances, and I saw three performances of Kirkorov.
 - b. = You saw two of Kirkorov's performances, and I saw three performances (of an unstated artist).

⁷As I have already noted, Russian employs a restriction on the genitive relation violation (Zaliznjak and Padučeva 1979). This example shows, however, that the genitive argument can be omitted. One may argue that those constructions have slightly different derivation than all the other constructions, they might employ argument ellipsis. Alternatively, we can propose that in the elliptical contexts the restriction on the genitive relation violation does not hold. I do not know how to argue in favor of either options. Perhaps, further research of Russian ellipsis and its interaction with that restriction might provide us with a better understanding of this puzzle.



(23)Object nominal, external argument omitted

> pročital Xomskogo, Ty tri knigi read.sg.pst.m Chomsky.gen you three.ACC book.gen.sg i pročitala dve knigi. book.gen.sg read.sg.pst.f two.acc

'You read three books by Chomsky, and I read two books.'

- a. = You read three books by Chomsky, and I read two books by Chomsky.
- b. = You read three books of Chomsky, and I read two books (written by an unstated author).
- (24)Eventive nominal, external and internal arguments omitted

Segodnjašnij osmotr pacientov Ivanovym dol'še. today's checkup patient.ACC.PL Ivanov.ins go.sg.pst.m longer čem včerašnii osmotr. yesterday's than checkup

'Today's patients' checkup by Ivanov lasted longer, than yesterday's checkup.'

- a. = Today's patients' checkup by Ivanov lasted longer, than yesterday's checkup of the patients by Ivanov.
- b. = Today's patients' checkup by Ivanov lasted longer, than yesterday's checkup (of an unstated person by an unstated checker).
- (25)Object nominal, external and internal arguments omitted

Staryj xėndaut Xomskogo k lekcii lučše ėtogo old handout Chomsky.gen for lecture.DAT better this.gen xendauta. novogo

new.gen handout.gen

'Chomsky's old handout for the lecture is better than the new handout.'

- a. = Chomsky's old handout for the lecture is better than the new handout of Chomsky for the lecture.
- b. = Chomsky's old handout for the lecture is better than the new handout of an unstated author and purpose.

In full sentences, head nouns cannot be stranded higher than the X head or the N head. This is evident from the fact that in the described constructions it is not possible to retain the meaning of the adjuncts of the DP:

(26)Eventive nominal

> Vitja segodnja videl tri prekrasnyx vystuplenija, Vitja today wonderful.gen.pl performance.gen.sg see.sg.pst.m three.ACC ia videl dva vystuplenija. a see.sg.pst.m two.acc performance.gen.sg

'Vitja saw two wonderful performances today, and I saw two performances.'

- a. = ??Vitja saw two wonderful performances today, and I saw two wonderful performances.
- b. = Vitja saw two wonderful performances today, and I saw two performances (of an unstated quality).
- (27)Object nominal

Vitja segodnja prekrasnyx fil'ma posmotrel dva Vitja today watch.sg.pst.m two wonderful.gen.pl film.gen.sg



```
a ja posmotrel tri fil'ma.
and I watch.sg.pst.m three.acc film.gen.sg
```

'Vitja watched two wonderful films tonight, and I watched two films.'

- a. = ??Vitja watched two wonderful films tonight, and I watched two wonderful films.
- b. = Vitja watched two wonderful films tonight, and I watched two films (of an unstated quality).

However, the following examples suggest, that the locality of a noun head's stranding can be violated in fragment answers, as shown in (28)–(29). I assume that this can be explained by the 'last resort' nature of the movement in fragments and by the MaxElide constraint on fragments (I will discuss these issues later in Sects. 3 and 4, respectively):

```
(28) A: Vitja segodnja posmotrel dva prekrasnyx fil'ma?

Vitja today watch.sg.pst.m two.acc wonderful.gen.pl film.gen.sg

'Did Vitja watch three wonderful films today?'
```

B: Net, spektaklja.

no play.gen.sg

'No, plays.'

a. = No, Vitja watched two wonderful plays tonight.

b. = ?? No, Vitja watched two plays (of an unstated quality) tonight.

(29) A: Ty uslyšal gromkoe penie?
you hear.sg.pst.m loud.acc singing.acc
'Did you hear loud singing?'

B: Net. šuršanie.

no rustle.ACC

'No. some rustle.'

a. = No, I heard a loud rustle.

b. = No, I heard a rustle (of an unstated loudness).

So far, the Russian data suggests, that both verb and noun heads can be stranded in fragment answers, even though the stranding of the latter seems to be strictly local in other contexts. With these facts in mind, I turn to the issue of how one can account for the properties of Russian fragments within the 'movement + ellipsis' approach.

3 The relevance of the 'head of an XP' fragments for the theory of fragment derivation

In Sect. 2 I have argued that fragment answers can be formed by the stranding of a verb or a noun head. The main consequence of this is that we can no longer claim that focus movement is the only way to form fragments, as was proposed in Merchant (2004). In order to provide an account for the 'head of an XP' fragments we would require a theory that does not put strict restrictions on the type of movement used in the derivation of fragment answers. This type of approach was presented in Weir (2014). He argues that the remnants of the fragments move only at the PF level, remaining *in situ* at the LF level.

The PF-movement proposed by Weir (2014) is said to be of an exceptional nature, it is licensed not by some uninterpretable features, but by the requirement to move the focused constituent out of the domain of the ellipsis. This is necessary to account for the fact that



certain constituents that cannot undergo focus movement in general can in fact be licit fragment answers in English (for example, NPIs, bare quantifiers and particles). Thus, this kind of movement can only occur in elliptical contexts.

Weir (2014, p. 177) also notes that this kind of movement is a syntactic process that operates on the constituents that are mobile in a language; this is captured by the following generalization: "If a string cannot be targeted by a phrasal movement operation even in principle, it cannot appear as a fragment." What does 'in principle' mean?

'Even in principle' here means that the architecture of the grammar, as we understand it, does not allow the string to move, and that this is true cross-linguistically. The idea is to separate non-constituents and heads, which never undergo phrasal movement in any language, from things like particles or complements of PPs, which are immobile in certain languages, but mobile in others, suggesting that they are not immobile 'in principle'. (Weir 2014, p. 177, fn. 102)

This generalization is too strong for Russian, since Weir assumes that heads cannot undergo phrasal movement in any language. I propose that heads should be in the same class as particles and complements of PPs, since head stranding is in fact possible in certain languages, while being ungrammatical in others. With that modification, Weir's theory is able to explain the Russian data.

Overall, Merchant's (2004, pp. 44–45) analysis fails to provide an explanation for how the fragments discussed in this paper are formed, while if we adopt Weir's approach to fragment answers with some minor modifications, the availability of the 'head of an XP' fragments is actually expected, as head stranding is possible in Russian in general.

4 Fragment answers and MaxElide

In this section I will demonstrate how the 'head of an XP' fragments can help us define the MaxElide constraint on fragment answers more clearly.

When answering a question, one can use fragments of different sizes. However, in spoken language it is the shortest one that is most frequently used. For example, in (30) the preferred fragment answer is the one consisting of the head of the possessive DP and not the one consisting of the full DP. Similarly, as shown in (31), it is more natural to use a short verbal response consisting of a verb head alone, rather than the one consisting of a full VP with an overt direct object. Notice, that the fragment answer in which the head's argument is realized as a pronoun is slightly more acceptable than the fragment answer in which the head's argument is an R-expression (I will address this issue later):

- (30) A: Uvarov byl drugom Puškina?

 Uvarov be.sg pst.m friend.ins Puškin.gen

 'Was Uvarov a friend of Puškin's?'
 - vragom. || ?Net, || ??Net, B: Net. ego vragom. Puškina. vragom enemy.ins || no his Puškin.gen enemy.ins no enemy.ins 'No, an enemy of his.'
- (31) a. A: Čto on sdelal so svojej rukopis'ju?

 what he do.sg.pst.m with self.prep manuscript.prep

 'What did he do to his manuscript?'
 - B: Sžeg. || Sžeg (ee). || ?? Sžeg rukopis'.

 burn.sg.pst.m || burn.sg.pst.m it || burn.sg.pst.m manuscript.acc

 'He burned it.'



- b. A: Ty budeš zavtra vystupat' na koncerte?
 you will.2sg tomorrow perform.inf at concert.prep
 'Are you going to perform at the concert tomorrow?'
 - B: (Da) budu. || Budu vystupat'.

 yes will.1sg || will.1sg perform.inf
 'I will.'
- c. A: Ty budeš žariť kuricu?
 you will.2sg fry.inf chicken.acc
 'Are you going to fry the chicken?'
 - B: Net, varit'. || ?Net, varit' ee. || ??Net, varit' kuricu.

 no boil.inf || no boil.inf it.acc || no boil.inf chicken.acc

 'No, I'll boil it.'

The fact that shorter fragment answers feel more natural can be attributed to language economy. A similar phenomenon was described in Merchant (2008). He notes, that in sluicing constructions only TP-ellipsis is available, while the ellipsis of a smaller constituent— ν P—is prohibited:

- (32) They said they heard about a Balkan language, but I don't know
 - a. which they said they heard about.
 - b. which.
 - c. *which they did.

(Merchant 2008, p. 139)

Merchant captures this phenomenon with the help of the MaxElide constraint:

(33) MaxElide [Definition]

Let XP be an elided constituent containing an A'-trace. Let YP be a possible target for deletion. YP must not properly contain XP (XP $\not\subset$ YP).

(Merchant 2008, p. 141)

An alternative version of the MaxElide principle was proposed in Takahashi and Fox (2005):

(34) MaxElide

Elide the biggest deletable constituent reflexively dominated by Parallelism Domain, if the PD is semantically identical to another constituent AC modulo focus marked constituents.

(Adapted from Takahashi and Fox 2005, p. 229)

In case of fragment answers, however, we should also be able to explain the fact that the remnant itself should be as small as possible. However, it would not be right to simply state that any minimal part of a full sentence constitutes a felicitous fragment. Thus, we need a concept that can identify the set of the fragment answers possible in the given discourse. This kind of concept was introduced in Weir's works.

Following Reich (2007) Weir proposed that all fragments stand in a particular relation to a certain pragmatic object—Question under Discussion (QUD, Roberts 1996). QUD is a set of questions that is intended to be resolved in a certain period of time by the discourse participants. The relationship, that binds fragment answers and QUD is called QUD-GIVENNESS and has the following definition:

(35) OUD-GIVENNESS

A clause E is QUD-given if there exists a question Q on the QUD stack such that $\cup Q \Leftrightarrow \cup \llbracket E \rrbracket^F$. (Weir 2014, p. 117)



In other words, clausal ellipsis is licensed only when the conjunction of all the unresolved questions in the current discourse mutually entail the conjunction of all the focused elements in the current discourse.

Using the concept of QUD-givenness we are now able to formulate the concept of the MaxElide constraint:

(36) MaxElide in fragments

The most felicitous fragment answer is the one that is smallest in size and is at the same time QUD-GIVEN.

This generalization successfully captures the fact that in fragment answers not only should the biggest constituent be elided (which is TP is all cases), but also that the remnant itself should be as small as possible.

Let us briefly discuss two issues connected to the MaxElide constraint mentioned earlier in the paper. First, MaxElide might provide an explanation for the fact that noun stranding can be non-local in fragment answers if we assume that this constraint can lead to the violation of locality considerations. This assumption is confirmed by the fact that the acceptability of the remnant with an overt adjectival modifier of the DP is degraded in general, as shown in (37), cf. (26) and (29). This example shows that a shorter fragment in which the nominal is stranded higher than the N head is preferred to a longer fragment in which the noun stranding is local.

```
(37) A: Ty uslyšal gromkoe penie?
you hear.sg.pst.m loud.acc singing.acc
'Did you hear loud singing?'
B: Net, (??gromkoe) šuršanie.
no loud.acc rustle.acc
'No, a loud rustle.'
```

Secondly, as I noted earlier, the fragments in which the head's arguments are not elided but instead substituted by a pronoun in a fragment answer, seem to be more acceptable compared to the fragment answers in which the arguments are left as regular R-expressions. The Max-Elide constraint for fragment answers, as I have formulated it, does not particularly capture that at first glance. However, this fact can be accounted for if we adopt Postal's (1966) idea on pronominals. In his 1966 paper he proposes that pronouns are in fact a case of noun ellipsis; in particular pronouns are not full NPs, but articles with certain features. If Postal's suggestion is right, then we can suppose that fragments like $S\check{z}eg$ ee are of the same size as fragments like $S\check{z}eg$ (the fragment answers in which all the head's arguments are elided), the only difference being that in the former constructions there are two independent ellipses involved in the derivation (TP-ellipsis and argument ellipsis), while in the latter case only TP-ellipsis is used. The same holds true for cases like (30) in which the head noun is the remnant. Taking these considerations into account we can state that the MaxElide constraint holds true in all our examples.

5 Conclusion

In this paper I discussed a certain type of fragment answers, which I have called 'head of an XP' fragments. I argued that these fragments are derived by the stranding of a verb or a noun head, both of which are attested in non-elliptical and elliptical contexts. While the availability of these types of fragment answers is not accounted for under Merchant's (2004) theory



of fragment derivation, Weir's (2014) alternative hypothesis seems to provide a reasonable explanation for it; since head-stranding is possible in Russian 'in principle', one would expect that kind of movement to be possible in elliptical contexts as well. Finally, on the basis of 'head of an XP' fragment answers, I proposed a variant of the MaxElide constraint for fragments.

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References

- Bailyn, J. F. (2017). Against a VP ellipsis account of Russian verb-stranding constructions. In W. McClure & A. Vovin (Eds.), Studies in Japanese and Korean historical and theoretical linguistics and beyond. Festschrift presented to John B. Whitman (Languages of Asia, 16, pp. 93–109). Leiden.
- Gribanova, V. (2013a). A new argument for verb-stranding verb phrase ellipsis. Linguistic Inquiry, 44(1), 145–157.
- Gribanova, V. (2013b). Verb-stranding verb phrase ellipsis and the structure of the Russian verbal complex. *Natural Language & Linguistic Theory*, 31(1), 91–136.
- Gribanova, V. (2017). Head movement and ellipsis in the expression of Russian polarity focus. Natural Language & Linguistic Theory, 35(4), 1079–1121.
- Ljutikova, E. A. (2014). Russkij genitivnyj posessor i formal'nye modeli imennoj gruppy. In E. A. Ljutikova, A. V. Cimmerling, & M. B. Konošenko (Eds.), Tipologija morfosintaksičeskix parametrov. Materialy meždunarodnoj konferencii «Tipologija morfosintaksičeskix parametrov 2014», 1 (pp. 120–145). Moskva 2014
- Merchant, J. (2004). Fragments and ellipsis. Linguistics and Philosophy, 27, 661–738.
- Merchant, J. (2008). Variable island repair under ellipsis. In K. Johnson (Ed.), *Topics in ellipsis* (pp. 132–153). Cambridge.
- Postal, P. M. (1966). On so-called 'pronouns' in English. In F. P. Dinneen (Ed.), *Report on the seventeenth annual round table meeting on linguistics and language studies* (Monograph Series on Language and Linguistics, 19, pp. 177–206). Washington.
- Reich, I. (2007). Toward a uniform analysis of short answers and gapping. In K. Schwabe & S. Winkler (Eds.), On information structure, meaning and form (Linguistik Aktuell. Linguistics Today, 100, pp. 467–484). Amsterdam, Philadelphia.
- Roberts, C. (1996). Information structure in discourse: towards an integrated formal theory of pragmatics. Semantics & Pragmatics, 5, 1–69.
- Takahashi, S., & Fox, D. (2005). MaxElide and the re-binding problem. In E. Georgala & J. Howell (Eds.), Proceedings from Semantics and Linguistic Theory, 15 (pp. 223–240). Ithaca.
- Weir, A. (2014). Fragments and clausal ellipsis (Doctoral dissertation). University of Massachusetts, Amberst
- Zaliznjak, A. A., & Padučeva, E. V. (1979). Sintaksičeskie svojstva mestoimenija KOTORYJ. In T. M. Nikolaeva (Ed.), Kategorija opredelennosti–neopredelennosti v slavjanskix i balkanskix jazykax (pp. 289–329). Moskva.

