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Lydia Grebenyova  
Cleveland State University, l.grebenyova@csuohio.edu

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## Sluicing Puzzles in Russian\*

*Lydia Grebenyova*  
*University of Maryland*

The general goal of this paper is to explore the properties of sluicing (IP-ellipsis) in Russian and to see how the Russian data shed light on the general processes underlying the phenomenon of sluicing. The first issue we will address is what positions wh-remnants occupy in sluicing constructions in Russian, considering the properties of wh-movement in Russian. We will then turn to sluicing with multiple wh-remnants, which I will refer to as *multiple sluicing*, following Takahashi (1994). Here we will investigate how the interpretative properties of multiple interrogatives in Russian affect the multiple sluicing possibilities in this language. Finally, I will present the data showing that superiority effects emerge under sluicing in Russian. This is unexpected, given that Russian does not exhibit superiority effects in corresponding non-elliptical interrogatives. In addressing the question of what causes superiority effects under sluicing, I will propose an analysis which makes use of an independent property of ellipsis, namely, quantifier parallelism.

### 1. The Phenomenon of Sluicing

Sluicing is a phenomenon of clausal ellipsis, first explored and named by Ross (1969). It generally represents a construction where only a wh-element is pronounced in an interrogative clause. Sluicing occurs in embedded clauses, as in (1), as well as in main clauses, as in (2).

(1) John bought something but I don't know what [~~John bought  $t$~~ ].

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- (2) a. *A*: John loves somebody.  
 b. *B*: Who?

I will assume an analysis of sluicing where this elliptical construction is viewed as the result of wh-movement out of IP followed by IP-deletion at PF, following the line of research in Ross (1969), Lasnik (1999) and Merchant (2001), among others. On this analysis, the derivation proceeds as shown in (3).<sup>1</sup>

- (3) *Step 1*: John bought something. I wonder [<sub>CP</sub> what [<sub>IP</sub> John bought *t*]].  
*Step 2*: John bought something. I wonder [<sub>CP</sub> what [<sub>IP</sub> ~~John bought *t*~~]].

Sluicing is common across languages and Russian is not an exception in allowing both embedded and main clause sluicing, as demonstrated in (4a) and (4b), respectively.

- (4) a. Ivan kupil čto-to, no ja ne pomnju čto [~~Ivan kupil *t*~~].  
 Ivan bought something but I not remember what Ivan bought  
 ‘Ivan bought something but I don’t remember what.’  
 b. *A*: Ivan kupil čto-to.  
*B*: Čto [~~Ivan kupil *t*~~]?

Besides the kind of sluicing we find in English, Russian also allows multiple sluicing (i.e., IP-deletion with multiple wh-remnants), as in (5).

- (5) Každij priglasil kogo-to na tanec, no ja ne pomnju kto kogo.  
 everyone invited someone to dance but I not remember who whom  
 ‘Everyone invited someone to a dance but I don’t remember who  
 (invited) whom.’

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<sup>1</sup> There are alternative LF-copying analyses of ellipsis, as advocated by Williams (1977), Lobeck (1995) and Chung, Ladusaw and McCloskey (1995), as well as strictly semantic approaches, as developed in Dalrymple et al. (1991), Jacobson (1992), and Hardt (1999). See Ross (1969), Merchant (2001) and Stjepanović (2003) for extensive arguments in favor of the deletion approach.

The availability of such structures in Russian is not surprising, since it is well known that Russian is a multiple wh-fronting language. That is, bare wh-phrases of the kind we see in (5) are all obligatorily fronted in non-elliptical multiple questions in Russian:

- (6) a. Kto<sub>1</sub> kogo<sub>2</sub> [<sub>t<sub>1</sub></sub> ljubit <sub>t<sub>2</sub></sub>]?  
      who whom loves  
      ‘Who loves who?’  
      b. \*Kto<sub>1</sub> [<sub>t<sub>1</sub></sub> ljubit kogo]?

However, given what we know about the properties of wh-movement in non-elliptical wh-questions in Russian, the multiple sluicing construction raises certain questions about the structure of the *sluice* (i.e., the clause in which IP-ellipsis takes place). Specifically, contrary to the standard assumption that the interrogative complementizer is the licenser of IP-ellipsis, there are reasons to consider a categorially different licenser of sluicing in Russian. I examine this issue in detail in the next section.

## 2. Sluicing and properties of wh-movement in Russian

One of the most important questions in investigating ellipsis is what categories license the deletion of their complements. For instance, it has been established that Infl licenses the deletion of its complement VP in VP-ellipsis (Williams 1977; Lobeck 1991, 1995; Lasnik 1999, 2000; and Merchant 2001). As for sluicing, beginning with Ross (1969), researchers have been identifying the interrogative complementizer as the head licensing the deletion of its complement IP. This conclusion is largely based on the fact that sluicing is restricted to interrogative clauses and requires a wh-remnant. Lobeck (1995) and Merchant (2001) examine a number of contexts in English, such as declarative clauses, lexically governed IPs and relative clauses (including clefts and free relatives), where one might expect IP-deletion to be licit, yet it is unavailable in those contexts. Thus, Merchant (2001) concludes that the IP in sluicing structures must be a complement of an interrogative wh-complementizer (i.e., C<sup>0</sup> bearing [+Q] and [+wh] features). Thus, the resulting structure of the sluice is as in (7), where the wh-phrase is in Spec,CP and the interrogative C<sup>0</sup> licenses the deletion of its complement IP at PF.

(7) John bought something. I wonder [<sub>CP</sub> what [<sub>IP</sub> ~~John bought~~ *t*]].

Slavic languages, however, exhibit a rather different pattern of wh-movement from the kind found in Germanic. Stjepanović (1998) and Bošković (1998, 2002) argue extensively that multiple wh-fronting in Slavic involves focalization. Sometimes focus movement is combined with checking the strong [+wh] feature of the interrogative C<sup>0</sup>, as in Bulgarian and most contexts in Serbo-Croatian, and sometimes focus alone drives wh-fronting, as in Russian (Stepanov 1998).

Let me demonstrate the logic of these arguments with respect to Russian. Stepanov (1998) argues that wh-movement in Russian is not driven by a [+wh] feature of C<sup>0</sup> and, therefore, the wh-phrases do not end up in Spec,CP in overt syntax. The argument is based on the lack of superiority effects in Russian. Stepanov assumes the economy approach to superiority, where C<sup>0</sup> with a strong [+wh] feature attracts the closest element with a matching [+wh] feature to Spec,CP for feature checking, as formulated in Chomsky's (1995) Minimal Link Condition (MLC). This approach explains the presence of superiority effects in English. Consider the familiar paradigm from English in (8). In both (8b) and (8d), C<sup>0</sup> attracts *what*, which is not the closest wh-phrase to C<sup>0</sup>. The closer wh-phrase is *who*, hence wh-movement in (8b) and (8d) is not economical.

- (8) a. Who bought what?  
b. \*What did who buy *t*?  
c. Who did John persuade *t* to buy what?  
d. \*What did John persuade who to buy *t*?

As Stepanov (1998) reports, Russian wh-questions do not exhibit superiority effects in virtually any contexts. This is illustrated in main clause and embedded questions in (9).

- (9) a. Kto<sub>1</sub> kogo<sub>2</sub> [*t*<sub>1</sub> ljubit *t*<sub>2</sub>]?  
      who whom loves  
b. Kogo<sub>2</sub> kto<sub>1</sub> [*t*<sub>1</sub> ljubit *t*<sub>2</sub>]?

- c. Ja ne znaju [kto kogo ljubiti].  
 I not know who whom loves  
 'I don't know who loves who.'
- d. Ja ne znaju [kogo kto ljubiti].

How can these facts be reconciled with the economy account of superiority? Note that the economy considerations of MLC only come into play when there is actually a Comp with a strong [+wh] feature present in the structure. Thus, Stepanov (1998) proposes that Russian does not, in fact, have a strong [+wh] feature. Instead, it has a weak [+wh] feature (like, for example, in Japanese), which does not trigger overt wh-movement and hence does not cause superiority effects.

This raises the question of why wh-phrases obligatorily front in Russian. Stepanov attributes such fronting to focalization. The analysis relies on the correlation between *wh*-fronting and *focus*-fronting of non-wh-phrases in Slavic, discovered by Stjepanović (1998). The generalization is that, not only wh-phrases but R-expressions must move if contrastively focused in Slavic, as demonstrated by the Russian paradigm in (10).

- (10) a. Kto<sub>1</sub> kogo<sub>2</sub> [<sub>t<sub>1</sub></sub> ljubiti <sub>t<sub>2</sub></sub>]?  
 who whom loves  
 'Who loves who?'
- b. \*Kto<sub>1</sub> [<sub>t<sub>1</sub></sub> ljubiti kogo]?  
 c. IVANA ja vstretila t.  
 Ivan<sub>ACC</sub> I<sub>NOM</sub> met<sub>1.FEM.SG</sub>  
 'I met IVAN'
- d. \*Ja vstretila IVANA.

Thus, Stepanov (1998) concludes that wh-phrases in Russian are fronted to a *focus* position below CP.<sup>2</sup>

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<sup>2</sup> Stepanov (1998) further explains the insensitivity of such focalization to superiority by suggesting, following Bošković (1998), that each wh-phrase itself carries a strong [+focus] feature and therefore the wh-phrases do not compete with each other with respect to economy.

Returning to sluicing, given that the interrogative  $C^0$  is the structural licenser of IP-deletion, how do the remnant wh-phrases in Russian sluicing structures survive deletion if they are not in Spec,CP? I propose that not only an interrogative  $C^0$  can license IP-deletion, but focus ( $Foc^0$ ) can do it as well, producing the structure as in (11). Thus, not only Spec,CP occupants can survive this deletion process.<sup>3</sup>

- (11) Ivan kupil čto-to, no ja ne pomnju [<sub>FocP</sub> **čto** [<sub>IP</sub> ~~Ivan kupil~~]]?  
 Ivan bought something but I not remember what  
 ‘Ivan bought something but I don’t remember what.’

As for the precise nature of the focus head in Russian, Stepanov (1998) argues that it is Agr<sub>S</sub>P, based on the position of adverbs. However, that seems problematic since the subject DP seems to be already occupying Spec,Agr<sub>S</sub>P in any wh-question containing a non-wh-subject, as in (10c). In this case, there is no room for the focused elements in the same projection. Thus, there might be an independent FocP in languages like Russian. The exact solution probably lies in the status of EPP in Russian, which would determine whether subjects undergo raising in Russian or remain within  $v$ P. It is beyond the scope of this paper to go into these matters, therefore I will only conclude that wh-phrases undergo focalization in Slavic and that the licenser of IP-deletion in these languages is not the strong [+wh] feature of  $C^0$  but rather the strong [+focus] feature of  $Foc^0$ .

If the line of reasoning above is on the right track, the question arises whether the [+wh] feature is required in licensing IP-ellipsis or, perhaps, focus alone can license it. In order to answer this question, we need to find out if sluicing is possible with focused remnants that are not wh-elements. The data from Russian below show that contrastively focused R-expressions can in fact be the remnants of sluicing. In (12), an R-expression *Ivana* survives IP-deletion and in (13), one wh-phrase and two R-expressions survive such clausal ellipsis.

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<sup>3</sup> The idea that  $Foc^0$  can trigger the deletion of its complement is implicitly present in Merchant (2001:81-82) and is proposed for Hungarian in van Craenenbroeck and Lipták (2005).

(12) *A:* Ty skazala čto on budet uvažat' Mašu?  
you said that he will respect Maša<sub>ACC</sub>  
'Did you say that he will respect Maša?'

*B:* Net. Ja skazala čto IVANA [~~on budet uvažat' t~~].  
no I said that Ivan<sub>ACC</sub> he will respect  
'No. I said that (he will respect) IVAN.'

(13) *A:* Ty ne pomniš kogda Ivan vstretil Mašu?  
you not remember when Ivan<sub>NOM</sub> met Maša<sub>ACC</sub>  
'You don't remember when Ivan met Maša?'

*B:* Net. Ja ne pomnju POČEMU SERGEJ LENU.  
no. I not remember why Sergej<sub>NOM</sub> Lena<sub>ACC</sub>  
'No. I don't remember WHY SERGEJ (met) LENA.'

Note that the structures in (12)-(13) cannot be instances of pseudogapping, since pseudogapping is not available in Russian:

(14) \*Maša budet čitat' knigu, a Ivan budet gazetu [~~čitat' t~~].  
Maša<sub>NOM</sub> will read book<sub>ACC</sub> and Ivan<sub>NOM</sub> will newspaper<sub>ACC</sub>  
'Maša will read a book and Ivan will a newspaper'

Another possibility to consider is a Gapping analysis of (12) and (13). However, given the properties of Gapping, it too cannot account for the cases under consideration. Like in English, Gapping in Russian is largely restricted to local coordinations with the conjunctives *a* ('and') and *ili* ('or'), which is not the case in (12) and (13).<sup>4</sup>

This outcome leaves two possibilities: (i) [+wh] and [+focus] features are both capable of licensing IP-deletion; or (ii) the [+focus] feature is the licenser of IP-deletion in general. The possibility (ii) is the stronger one and therefore is more difficult to maintain, especially outside of Slavic. However, it seems promising since the majority of the environments that do not permit sluicing, discussed by Lobeck (1995) and Merchant (2001), contain elements that cannot be contrastively focused, such as relative pronouns in relative clauses and complementizers like *that* and *if*. I leave the testing of the focus-licensed-

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<sup>4</sup> For extensive empirical arguments against a Gapping analysis of (12) and (13), see Grebenyova (in preparation).

sluicing hypothesis for further research, concluding that the overall direction of reducing the licensing requirements of sluicing to those of contrastive focus seems plausible and insightful.

### 3. Multiple sluicing and semantics of multiple interrogatives

In this section, I draw a generalization about how the interpretive properties of multiple interrogatives affect the sluicing possibilities in Russian. Consider the contrast between (15) and (16) below.

- (15) Každýj priglasil kogo-to na tanec, no ja ne pomnju kto kogo.  
everyone invited someone to dance but I not remember who whom  
'Everyone invited someone to a dance but I don't remember who (invited) whom.'
- (16) ??Kto-to priglasil kogo-to na tanec, no ja ne pomnju kto kogo.  
someone invited someone to dance but I not remember who whom  
'Someone invited someone to a dance but I don't remember who (invited) whom.'

The contexts that allow multiple sluicing in Russian seem to crucially depend on the interpretation of multiple interrogatives in this language. Russian, unlike languages like Serbo-Croatian or Japanese, lacks single-pair readings in multiple interrogatives, as demonstrated in Grebenyova (2004). Multiple interrogatives in general can have a Pair-List (PL) or a Single-Pair (SP) reading, with the SP reading being more restricted crosslinguistically, as pointed out by Wachowicz (1974), Hagstrom (1998) and Bošković (2001). The readings are demonstrated in the scenarios in (17) and (18) with respect to the English question in (19), which is infelicitous on the SP scenario in (18) since English also lacks SP readings.

- (17) *Scenario 1 (PL)*: John is at a formal dinner where there are diplomats and journalists. Each journalist was invited by a different diplomat. John wants to find out all the details, so he asks the host:
- (18) *Scenario 2 (SP)*: John knows that a very important diplomat invited a very important journalist to a private dinner. John wants to find out all the details, so he asks the caterer:

(19) Who invited who to the dinner? *PL/\*SP*

Bulgarian and Russian pattern with English in lacking the SP reading in multiple interrogatives, as demonstrated in (20).<sup>5</sup> Languages like Serbo-Croatian and Japanese, on the other hand, allow both PL and SP readings.

(20) a. [Bulgarian]  
Koj kogo e pokanil na večerjata? *PL/\*SP*  
who whom Aux invited to dinner  
'Who invited who to the dinner?'

b. [Russian]  
Kto kogo priglasil na užin? *PL/\*SP*  
who whom invited to dinner  
'Who invited who to the dinner?'

(21) a. [Serbo-Croatian]  
Ko je koga pozvao na večeru? *PL/SP*  
who Aux whom invited to dinner  
'Who invited who to the dinner?'

b. [Japanese]  
Dare-ga dare-o syokuzi-ni manekimasita-ka? *PL/SP*  
who<sub>NOM</sub> who<sub>ACC</sub> dinner<sub>DAT</sub> invited-Q  
'Who invited who to the dinner?'

Therefore, it is plausible to analyze the degraded status of the Russian multiple sluicing example in (16) as the result of the antecedent clause imposing a single-pair reading on the interrogative clause in the sluice, since this is a reading which a multiple wh-question cannot have in Russian.<sup>6</sup>

There is another reading, sometimes not easily distinguished from the SP reading, namely, the *Order* reading, as in (22) from English.

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<sup>5</sup> The SP reading becomes available in D-linked multiple questions in all these languages (e.g. *Which diplomat invited which journalist?*). I restrict the discussion above to questions containing non-d-linked wh-phrases.

<sup>6</sup> For specific accounts of what prohibits SP readings in certain languages, see Bošković (2001) and Grebenyova (2004).

Multiple sluicing is available with this reading in Russian if the antecedent provides the relevant context, as in (23).

(22) John and Bill were fighting. Who hit who first?

(23) *Maša i Ivan pošli na večer. Kto-to iz nix priglasil drugogo na tanec, no ja ne znaju kto kogo.*  
Maša and Ivan went to party. One of them invited the-other to dance but I not know who whom.

‘Maša and Ivan went to a party. One of them invited the other to a dance but I don’t know who invited who.’

Thus we arrive at the rather straightforward generalization that the only interpretations of wh-interrogatives available under sluicing in a given language are the interpretations generally available to wh-interrogatives in that language.<sup>7</sup> This presents another argument for the analysis of the sluices as full interrogative clauses.

One of the predictions of this outcome is that multiple sluicing should not be available with adjunct wh-questions since the order reading is impossible with adjuncts. The prediction is borne out, as shown in (24).

(24) \**Kto-to sprjatal gde-to zdes’ klad, no ja ne znaju kto gde.*  
someone hid somewhere here treasure but I not know who where  
‘Someone hid the treasure somewhere here but I don’t know who hid it where.’

Another control test for the generalization above comes from Serbo-Croatian, a language allowing SP readings in multiple interrogatives. The Serbo-Croatian equivalent, from Stjepanović (2003), of the unacceptable Russian example in (16) is fine, as expected:

(25) [Serbo-Croatian]  
*Neko je video nekog, ali ne znam ko koga.*  
somebody is seen somebody but not know who whom  
‘Somebody saw someone, but I don’t know who whom.’

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<sup>7</sup> But see Grebenyova (in preparation) for discussion of certain English examples that appear to contradict this generalization.

#### 4. Superiority under Sluicing

In this section, we will examine another property of sluicing in Russian. Apparently, sluicing enforces superiority effects in contexts where parallel non-elliptical structures do not exhibit any superiority effects. This was observed for Serbo-Croatian multiple sluicing in main clauses with null  $C^0$  by Stjepanović (2003). The same is true of Russian multiple sluicing in both main and embedded clauses.

First, consider the data in (26) and (27) (slightly modified examples from Bošković (1998)), demonstrating that superiority effects in Serbo-Croatian are present in embedded but not in main clauses.

- (26) a. Ko šta<sub>1</sub> o njemu govori t<sub>1</sub>?  
who what about him says  
'Who says what about him?'
- c. Šta<sub>1</sub> ko o njemu govori t<sub>1</sub>?
- (27) a. Pavle je pitao ko šta<sub>1</sub> o njemu govori t<sub>1</sub>.  
Pavle aux asked who what about him says  
'Pavle asked who says what about him.'
- b. ??Pavle je pitao šta<sub>1</sub> ko o njemu govori t<sub>1</sub>.

However, as Stjepanović (2003) points out, superiority effects emerge in Serbo-Croatian in main clauses under sluicing:

- (28) A: Neko voli nekog.  
somebody loves somebody  
'Somebody loves somebody.'
- B1: Ko koga?  
who whom
- B2: \*Koga ko?

The same effects hold under sluicing in embedded clauses in Serbo-Croatian, but that is of no relevance since this corresponds to the facts in the parallel non-elliptical structures.

Let us now examine the same contexts in Russian, a language without any superiority effects in either main or embedded clauses in

non-elliptical structures, as we recall from the data in (9) from Stepanov (1998), repeated below.

- (29) a. Kto<sub>1</sub> kogo<sub>2</sub> [*t*<sub>1</sub> ljubit *t*<sub>2</sub>]?  
      who whom loves  
      b. Kogo<sub>2</sub> kto<sub>1</sub> [*t*<sub>1</sub> ljubit *t*<sub>2</sub>]?  
      c. Ja ne znaju [kto kogo ljubit].  
          I not know who whom loves  
          'I don't know who loves who.'  
      d. Ja ne znaju [kogo kto ljubit].

However, like in Serbo-Croatian, superiority effects emerge in Russian under Sluicing in both main in embedded clauses, as demonstrated in (30) and (31).

- (30) a. *A*: Každyj priglasil kogo-to na tanec.  
          everyone invited someone to dance  
          'Everyone invited someone to a dance.'  
      b. *B*: Kto kogo?  
          who whom  
      c. *B*: \*Kogo kto?
- (31) a. Každyj priglasil kogo-to na tanec, no ja ne pomnju *kto kogo*.  
          everyone invited someone to dance but I not remember who who  
          'Everyone invited someone to a dance but I don't remember who  
          (invited) who.'  
      b. \*Každyj priglasil kogo-to na tanec, no ja ne pomnju *kogo kto*.

These are rather surprising facts, given that sluicing is known to sometimes repair the derivation (e.g., amelioration of island effects under sluicing investigated by Ross (1969), Lasnik (2000) and Merchant (2001)). It is surprising that, in the cases above, sluicing seems to destroy it. Of course, if superiority effects are essentially minimality effects and minimality is encoded into the definition of Attract (Chomsky 1995), such violations cannot technically exist in any derivation and therefore

cannot be repaired by deletion. This means that we would not expect superiority effects in non-elliptical structures in a language like Bulgarian to disappear under sluicing. Merchant (2001) reports data demonstrating that this is indeed the case in Bulgarian. This, as Merchant points out, presents additional evidence for the deletion approach to ellipsis, since superiority is a diagnostic of movement and movement could have taken place out of the ellipsis site only if a full clause is present in the structure from the beginning and is deleted at PF. But why would sluicing invoke superiority effects in languages and contexts that lack superiority effects without ellipsis, as in Serbo-Croatian and Russian?

Stjepanović (2003) attempts to explain the Serbo-Croatian data as follows. Assuming that the feature licensing TP-deletion must be on  $C^0$ , she concludes that  $C^0$  must be merged in overt syntax in sluicing constructions. The strong [+wh] feature of  $C^0$  then triggers superiority effects in Serbo-Croatian matrix sluices.

This account, however, has a difficulty in that it is difficult to extend this analysis to Russian. Since the [+wh] feature is weak in Russian, merging  $C^0$  overtly cannot result in superiority effects. I would like to explore an alternative account and suggest that the superiority effects observed under Sluicing follow from an independent property of elliptical structures, namely, quantifier parallelism.

I adopt the notion of parallelism of Fiengo and May (1994), further developed by Fox and Lasnik (2003), which requires that variables in the elided and antecedent clauses be bound from parallel positions. I also assume that the variable introduced by an indefinite in the antecedent clause is bound by existential closure (Kratzer 1997) and that wh-words like *who* and *what* are quantifiers over individuals.

Let us now consider the LF of the antecedent in Russian multiple sluicing in (32a), given in (33).

- (32) a. *A*: Každýj priglasił kogo-to na tanec.  
everyone invited someone to dance  
'Everyone invited someone to a dance.'
- b. *B*: Kto kogo [~~priglasił na tanec~~]?  
who whom invited to dance
- c. *B*: \*Kogo kto [~~priglasił na tanec~~]?

(33)  $\forall x \exists y$  [x priglasil y na tanec]  
 invited to dance

This is the only reading available in (32a), since surface quantifier scope is preserved in Russian. This can be seen in (34) and even more clearly in the unacceptable (35), based on an English example in Fox (2000:70). For similar observations, see also Ionin (2001), Pereltsvaig (in press), and Bailyn (this volume).

(34) Kakoj-to paren' poceloval každyju devušku.  $\exists x \forall y / * \forall y \exists x$   
 some guy<sub>NOM</sub> kissed every girl<sub>ACC</sub>  
 'Some guy kissed every girl.'

(35) #Odin/kakoj-to časovoj stoit naprotiv každygo zdanija.  
 one/some guard is-standing in-front-of every building  
 'One/some guard is standing in front of every building.'

Now consider the LF representations of the acceptable sluice in (32b) and the unacceptable one in (32c), given in (36b) and (36c) respectively. Do they meet the parallelism requirement? That is, are the variables in these sluices and in the LF of the antecedent (repeated as (36a)) bound from parallel positions?

- (36) a.  $\forall x \exists y$  [x priglasil y na tanec]  $\leftarrow$  LF (antecedent)  
 invited to dance
- b. kto x kogo y [x priglasil y na tanec]  $\leftarrow$  LF (wh1 > wh2)  
 who whom invited to dance
- c. kogo y kto x [x priglasil y na tanec]  $\leftarrow$  LF (wh2 > wh1)  
 whom who invited to dance

The parallelism in variable binding is met between (36a) and (36b), but it is not met between (36a) and (36c). That is, the quantifier binding the object variable is inside the scope of the quantifier binding the subject variable in the antecedent clause, while it is outside the scope of the parallel quantifier in the sluice in (36c).

To test this further, let us scramble the object quantifier over the subject in the antecedent clause, as in (37a). This results in an acceptable

sluice with the *wh2>wh1* order in (37b), as predicted by the parallelism account, since now the object quantifier is outside the scope of the subject quantifier in both the antecedent and the sluice.<sup>8</sup>

- (37) a. *A*: Každogo<sub>1</sub> kto-to priglasil *t<sub>l</sub>* na tanec  
 everyone<sub>ACC</sub> someone<sub>NOM</sub> invited to dance  
 ‘Someone invited everyone to a dance.’ (with  $\forall x \exists y$ )
- b. *B*: Kogo kto?  
 whom who
- c. *B*: \*Kto kogo?  
 who whom

And the subject>object order of the wh-phrases in (37c) is unacceptable now, which strengthens the parallelism account proposed above.<sup>9</sup>

Thus, the apparent superiority effects under sluicing turn out to be parallelism effects and not minimality effects.

## 5. Conclusions

To summarize, we have examined several properties of sluicing in Russian and reached the following results.

First, given the movement of wh-phrases to a focus position between CP and TP in Russian, it is plausible that not only Spec,CP occupants can survive the process of IP-deletion. I proposed that Foc<sup>0</sup> can license the deletion of its complement in Russian and that the [+wh,+Q] features

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<sup>8</sup> The universal quantifier is used as the object here to maintain the pair-list reading requirement in Russian multiple interrogatives.

<sup>9</sup> Steven Franks (p.c.) reports a Russian informant who does not share the judgments in (37). The same informant, however, is sensitive to superiority effects in Russian. As Merchant (2001) reports for Bulgarian, a language with robust superiority effects, such effects do not go away under sluicing if they are present in non-elliptical contexts. Thus, parallelism and superiority are independent properties of grammar and can be distinguished from each other under ellipsis only if a speaker is insensitive to superiority effects in non-elliptical contexts (as my Russian informants and myself are). The attested variation with respect to superiority effects is itself an interesting puzzle for syntactic theory and is need of further exploration.

are located in Foc<sup>0</sup>. As a consequence of this proposal, we have discovered that contrastively focused R-expressions can also be the remnants of sluicing in Russian.

Second, we have seen that sluicing licensing contexts depend on the interpretation of multiple interrogatives in a given language. That is, sluicing where an antecedent imposes the SP reading on the interrogative in the sluice is unacceptable in Russian, just as non-elliptical multiple interrogatives are unacceptable under the SP reading in this language.

Finally, considering the quantifier parallelism requirement in ellipsis allowed us to analyze apparent superiority effects under sluicing as parallelism effects. That is, the unacceptability of certain sluices is caused by the lack of parallelism in quantifier-variable binding between the antecedent and the sluice. This approach predicts that there is no language with fixed isomorphic scope that allows for free ordering of wh-phrases in sluicing structures. The results of further testing of this prediction in Polish and Serbo-Croatian as well as certain observations about specificity in sluicing are discussed in Grebenyova (in preparation).

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Lydia Grebenyova  
 Dept. of Linguistics  
 University of Maryland  
 1401 Marie Mount Hall  
 College Park, MD 20742

lgrebeny@umd.edu