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The unbearable lightness of clitics

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Citation

Ionova, A. (2020, January 23). *The unbearable lightness of clitics*. LOT dissertation series. LOT, Amsterdam. Retrieved from <https://hdl.handle.net/1887/83258>

Version: Publisher's Version

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Title: The unbearable lightness of clitics

Issue Date: 2020-01-23

CHAPTER 5

Preposition omission under sluicing in Russian

This chapter focuses on preposition omission under sluicing in Russian, which illustrates a different aspect of interaction of phonologically weak items and ellipsis. It discusses how phonological characteristics of an element (namely, its prosodic status) can affect the possibility of it being targeted by ellipsis, providing evidence for the existence of late, post-syntactic elliptical processes, which is sensitive to the prosodic organisation of a sentence.

To start with, I define *light* prepositions as those prepositions that are clitics, while *heavy* prepositions are those that behave as independent prosodic words. As it will become clear below, there is also an intermediate stage: some prepositions are phonologically “heavier” than the light ones but “lighter” than the heavy ones.

5.1 Sluicing and preposition stranding

As discussed in chapter 1, one of the major arguments for the *move-and-delete* approach towards sluicing is the Preposition Stranding Generalisation (PSG). The PSG, however, is not exceptionless. Cases that fall outside the generalisation, therefore, question the validity of the *move-and-delete* approach. This section focuses on the exceptions and summarises previous proposals which aimed at accounting for them without rejecting the PSG.

5.1.1 Preposition Stranding generalisation

The PSG captures the relation between the possibility to strand a preposition under *wh*-movement and the optionality of its presence in a sluicing remnant. It was first introduced in Merchant (2001) and formulated as follows.

- (1) *Form-identity generalisation II: Preposition-stranding*
 A language *L* will allow preposition stranding under sluicing iff *L* allows preposition stranding under regular *wh*-movement.
 Merchant (2001:92)

English is an example of a language that allows preposition (P) stranding under regular *wh*-movement (2a). As predicted, it also allows preposition “stranding” (omission)¹ under sluicing (2b). According to the *move-and-delete* approach this correlation is explained by the preposition being stranded inside the ellipsis site in a prepositionless version of (2b), as demonstrated in (2c).²

- (2) a. What was she talking **about**?
 b. She was talking about something, but I don’t know (**about**) what.
 c. She was talking about something, but I don’t know what ~~she was talking **about**~~.

In contrast, in Russian prepositions are normally obligatorily pied-piped by the moved *wh*-phrase, as (3) shows. PSG therefore predicts that P-omission should not be possible under sluicing in Russian and this prediction is borne out for the majority of cases. In (4), for example, the preposition *o* ‘about’ must be pied-piped and cannot be stranded in the ellipsis site.

¹Further I refer to this phenomenon as P-omission, since, as shown below, it does not always involve stranding.

²The PSG does not always hold even for English. As noted in Chung & McCloskey (1995) with the reference to Rosen (1976), in English it is sometimes possible to omit a non-strandable preposition under sluicing:

- (i) a. *What circumstances will we use the force under?
 b. We are willing to use force under certain circumstances, but we will not say in advance which ones.

- (3) a. **O** čëm ona govorila?
about what she talked
- b. *Čëm ona govorila **o**?
what she talked about
“About what was she talking?”
- (4) a. Ona govorila **o** čëm-to, no ja ne znaju, **o**
She talked about something but I not know about
čëm ~~ona govorila~~.
what she talked
- b. *Ona govorila **o** čëm-to, no ja ne znaju, čëm
she talked about something but I not know what
~~ona govorila o~~.
she talked about
“She was talking about something but I don’t know about what.”

5.1.2 Exceptions to PSG

Although PSG accounts for the majority of the data, there are non-P-stranding languages in which it is still sometimes possible to omit a preposition from a sluicing remnant. Such potential counterexamples to the PSG come from Spanish (Vicente 2008, Rodrigues et al. 2009), Brazilian Portuguese (Almeida & Yoshida 2007, Rodrigues et al. 2009), Indonesian (Fortin 2007, Sato 2011), Emirati Arabic (Leung 2014), Polish (Szczegielniak 2006, 2008), Serbo-Croatian (Stjepanović 2008, 2012), Romanian (Nicolae 2012), Czech (Caha 2011), Bulgarian (Abels 2016), and Russian (Philippova 2014).

Consider the following example from Russian. According to Philippova (2014), omission of the preposition in (5) does not lead to ungrammaticality. In her survey, native speakers judged (5a) as acceptable and (5b) as good (Philippova 2014:141) (an underscore represents an omitted preposition).

- (5) (Philippova, 2014:141)
- a. ? Maša kupila éto platje **k** kakomu-to prazdniku, no ja
Maša bought this dress for some.DAT holiday but I
ne pomnu ___ kakogo.
not remember which.DAT
‘Maša bought this dress for some holiday but I don’t remember which.’

- b. Pětr sdelal Maše predloženiye **nakanune** kakogo-to
 Pětr did Maša proposal on.eve.of some.GEN
 prazdnika, no ja zabyl ___ kakogo.
 holiday.GEN but I forgot which.GEN
 ‘Peter proposed to Mary on the eve of some holiday but I forgot which.’

The example in (6) demonstrates the same phenomenon in Polish: according to Szczegielniak (2008), the preposition in this case is optional, even though it cannot be stranded under *wh*-movement.

- (6) (Szczegielniak, 2008:405)
- a. Anna tańczyła z jednym mężczyzną, ale nie wiem
 Anna danced with one man but not know
 (z) którym.
 (with) which
 ‘Anna danced with one man, but I do not know which.’
- b. *Którym_i Anna tańczyła z t_i mężczyzną?
 which Ann danced with man
 ‘Which man did Ann dance with?’
- c. [Z którym]_i Anna tańczyła t_i mężczyzną?
 with which Ann danced man
 ‘With which man did Anna danced?’

There are two potential explanations of the possibility to omit a non-strandable preposition under sluicing:

- (a) The PSG is merely incorrect. P-omission under sluicing cannot be explained by the preposition being stranded in the ellipsis site. Therefore, the *move-and-delete* approach and possibly the entire structural approach to ellipsis are wrong.
- (b) The PSG holds and deletion of a non-strandable preposition can be explained by other means: either by postulating a different structure inside the ellipsis site (as in the pseudo-sluicing account of Vicente 2008, Rodrigues et al. 2009) or by assuming that there exists a separate operation responsible for the deletion of a preposition after sluicing (such as a P-omission account of Stjepanović 2008). See section 5.1.3 for details.

In this chapter, I argue for the second option and show that P-omission under sluicing can be accounted for under the structural approach to ellipsis and the assumption that the PSG holds. Ultimately, there is a correlation between P-stranding under *wh*-movement and P-omission under

sluicing: even though non-P-stranding allow P-omission in some cases, it occurs much less regularly in comparison to P-stranding languages. The next section presents existing accounts which explain P-omission under sluicing without rejecting the PSG.

5.1.3 Previous accounts of exceptional cases

There are two main types of syntactic accounts of the exceptions for the PSG:

- (a) A source for ellipsis is not isomorphic to the antecedent and does not contain a preposition (e.g., the pseudo-sluicing account):

(7) She was talking with someone, but I don't know who ~~it was~~.

- (b) Deletion of a preposition outside the ellipsis site (e.g., a discontinuous deletion of the clause or a separate operation of P-deletion):

(8) She was talking with someone, but I don't know ~~with~~ who ~~she was talking~~.

The first type of accounts is represented by a so-called pseudo-sluicing account, which was adopted by Vicente 2008 and Rodrigues et al. 2009 for Spanish and Brazilian Portuguese and by Szczegielniak 2006, 2008 for Polish. This type of accounts postulates that P-less remnants in fact involve cleft pivots rather than a full clause that is identical to its antecedent.

Consider (9) from Spanish, another non-P-stranding language that allows P-omission under sluicing in particular cases (when the *wh*-phrase in the remnant is a D-linked phrase such as *which*).

- (9) (Rodrigues et al., 2009:2)
- a. *¿ Qué chica ha hablado Juan **con**?
 which girl has talked Juan with
 Int: 'Which girl has Juan talked to?'
- b. Juan ha hablado **con** una chica, pero no sé cuál.
 Juan has talked with a girl but not know which
 'Juan has talked to a girl but I don't know which.'

Rodrigues et al. (2009) propose that P-less sluices are in fact derived from an alternative source: a cleft structure consisting of a copula followed by a DP with a relative clause, as in (10).

- (10) (Rodrigues et al., 2009:3)

Juan ha hablado con una chica pero no sé cuál es la
 Juan has talked with a girl but not know which is the
 chica con la que ha hablado Juan.
 girl with the that has talked Juan

‘Juan has talked to a girl but I don’t know which it is the girl
 that Juan talked to.’

Szczegielniak (2006, 2008) proposes a similar account for the P-stranding effect under sluicing in Polish. As in Spanish, sluicing with D-linked remnants can involve P-omission in Polish, which is a non-P-stranding language, as mentioned above. Szczegielniak suggests that (11a) is derived from a cleft-like source (11b).

- (11) a. Anna tańczyła z jednym mężczyzną, ale nie wiem
 Anna danced with one man but not know
 którym.
 which

‘Anna danced with one man, but I do not know which.’

- b. Anna tańczyła z jednym mężczyzną, ale nie wiem
 Anna danced with one man but not know
 którym_i to z t_i mężczyzną (ona) tańczyła.
 which it with man she danced

‘Anna danced with one man but I do not know which man it
 was that she danced with.’

As it has been quite extensively discussed in the literature (see Grebenyova 2007 a.o.), this account cannot be applied to the Russian data: as a case-marking language, Russian requires the remnant and the correlate to bear the same case in the context of sluicing, as in (12a), while the cleft pivot obligatorily appears in nominative, as in (12b).

- (12) Grebenyova (2007):

- a. Ivan budet davat’ komu-to podarki, no ja ne znaju
 Ivan will give someone.DAT presents but I not know
 komu / *kto.
 who.DAT who.NOM

‘Ivan will be giving someone presents but I don’t know who.’

- b. Ivan podaril komu-to podarok, no ja ne znaju
 Ivan gave someone.DAT present but I not know
 kto / *komu èto byl.
 who.NOM / who.DAT it was

‘Ivan gave someone a present but I don’t know who it was.’

Russian prepositions never assign nominative. However, In Russian, the nominative and accusative forms of the inanimate interrogative pronoun *čto* ‘what’ are syncretic, so occasionally the case assigned by a putative stranded preposition is syncretic with the case of the cleft pivot. van Craenenbroeck (2012) notices that P-omission under sluicing is more acceptable with such syncretism: (13a) is better than (13b) because it involves the syncretic form of the inanimate pronoun.

- (13) a. ? Navernoe, ja sela na čto-to, no ne znaju,
 maybe I sat on something.ACC but not know
 čto.
 what.ACC/NOM
 ‘Maybe I sat on something but I don’t know what’.
- b. * Ona vlubilas’ v kogo-to, no ja ne znaju,
 she fell-in-love in someone.ACC but I not know
 kogo / *kto.
 who.ACC / who.NOM
 ‘She fell in love with someone but I don’t know who.’

The contrast between (13a) and (13b) can be explained if the former can be interpreted as derived from a cleft source (this option is not available for the latter):

- (14) a. Navernoe, ja sela na čto-to, no ne znaju,
 maybe I sat on something.ACC but not know
 čto èto bylo.
 what.NOM it was
 ‘Maybe I sat on something but I don’t know what it was’.
- b. * Ona vlubilas’ v kogo-to, no ja ne znaju,
 she fell-in-love in someone.ACC but I not know
 kogo èto byl.
 who.ACC it was
 Int: ‘She fell in love with someone but I don’t know who it was.’

The pseudo-sluicing account can therefore be applicable only to some but by no means all Russian data. For the rest, an alternative analysis is required.

An example of the second type of accounts of P-omission, under which there is a preposition in the ellipsis site, is a P-omission account of Stjepanović (2008), which was proposed for Serbo-Croatian, another non-P-stranding language that allows P-omission under sluicing in some cases:

- (15) Stjepanović (2008:181)
- a. Ana je govorila sa nekom djevojkom, ali ne znam
 Ana is talked with some girl but not know
 (sa) kojom djevojkom.
 with which girl
 ‘Ana talked to some girl but I don’t know (with) which girl.’
- b. *Kojom djevojkom je Ana govorila sa?
 which girl is Ana talked with
 Int: ‘Which girl did Ana talked to?’.

Stjepanović proposes that a preposition in the remnant may be deleted by some postsyntactic operation, “occurring possibly at PF” (Stjepanović, 2008:188), different from sluicing. Under this account, a preposition first moves together with the *wh*-phrase out of the ellipsis site, subsequently getting deleted by a separate operation “P-drop”, which is crucially different from sluicing, although dependent on it.³ Derivation of a P-less version of (15a) would involve deletion of a pied-piped preposition:

- (16) Based on Stjepanović (2012)
- Ana je govorila sa nekom djevojkom, ali ne znam sa
 Ana is talked with some girl but not know with
 kojom djevojkom.
 which girl
 ‘Ana talked to some girl but I don’t know which girl.’

Stjepanović bases her argument on the possibility of P-omission with two coordinated PPs. Consider (17): both prepositions can be omitted from the remnant, which cannot be explained by P-stranding in the ellipsis site, since the coordinated remnant cannot move out of the PPs stranding the prepositions under any theory of syntactic movement.

- (17) Stjepanović (2008:183)
- Petar je glasao za nešto i protiv nečega,
 Petar is voted for something.ACC and against something.GEN
 ali ne znam (za) šta i (protiv) čega.
 but not I.know for what.ACC and against what.GEN
 ‘Petar voted for something and against something, but I don’t know for what and against what.’

³I refer to P-drop as P-omission to be consistent.

The same, in my judgement, holds for Russian (I use complex *wh*-remnants in the following example because P-omission under sluicing in Russian is more acceptable with this type of remnants, as will be discussed below).

- (18) Ksuša progolosovala protiv kakogo-to mužčiny i za
 Ksuša voted against some.GEN man.GEN and for
 kakuju-to ženščinu, no ja ne znaju, (protiv) kakogo
 some.ACC woman.ACC but I not know against which.GEN
 mužčiny i (za) kakuju ženščinu.
 man.GEN and for which.ACC woman.ACC
 ‘Ksuša voted against some man and for some woman but I don’t
 know against which man and for which woman.’

In this chapter, I provide additional evidence for the P-omission account and argue that it is an instance of late ellipsis, which is sensitive to phonological properties. It is already shown in Philippova (2014) that P-omission in Russian is sensitive to the phonological weight of a preposition, which Philippova considers to correlate with the number of syllables. Table 5.1 introduces the results of her grammaticality judgement survey, where 15 ‘naive’ (non-linguists) speakers were asked to judge grammaticality of a sentence containing a P-less sluice on a scale from 1 (bad) to 5 (good). Omitted prepositions varied in size, from non-syllabic to quadri-syllabic. The results show that omission of heavier prepositions is more acceptable than omission of the light ones.

	0 SYLL	1 SYLL	2 SYLL	3 SYLL	4 SYLL
mean	2.93	3.06	3.33	3.49	3.59
SD	1.07	1.05	1.08	1.04	0.95

Table 5.1: *Results of the survey conducted by Philippova (2014)*

The number of syllables in a preposition correlates with its morphosyntactic properties (such as morphological complexity or syntactic behaviour, see next section), therefore it is not possible to immediately conclude that P-omission is sensitive to the number of syllables *per se*. The next section introduces the system of Russian prepositions including their morphosyntactic properties and shows that none of them can be an explanation for the behaviour of prepositions under sluicing.

5.2 The system of Russian prepositions

As shown above, only some of Russian prepositions are susceptible to omission under sluicing. It is therefore necessary to introduce the system

of Russian prepositions and determine the parameters in which prepositions can differ.

Example (5), repeated here as (19), demonstrates the contrast between two prepositions, one of which is more susceptible to omission from the sluicing remnant than the other one.

(19) (Philippova, 2014:141)

- a. ?Maša kupila éto platje **k** kakomu=to prazdniku, no ja
Maša bought this dress for some.DAT holiday but I
ne pomnu ___ kakomu.
not remember which.DAT
'Maša bought this dress for some holiday but I don't re-
member which.'
- b. Pětr sdelal Maše predloženije **nakanune** kakogo-to
Pětr did Maša proposal on.eve.of some.GEN
prazdnika, no ja zabył ___ kakogo.
holiday.GEN but I forgot which.GEN
'Peter proposed to Mary on the eve of some holiday but I
forgot which.'

The prepositions in the above examples differ in their phonological, morphological and possibly syntactic properties, some of which might affect their possibility of being omitted under sluicing. This chapter provides an overview of the existing classifications and different properties of Russian preposition which serve as a basis for the discussion of P-omission.

5.2.1 Morphosyntactic properties

Primary and secondary prepositions

Traditionally, Russian prepositions are divided into primary and secondary ones. The Academy Grammar (Švedova 1980) defines primary prepositions as a small and closed class of words that are not connected to any other words of main categories etymologically. Preposition *k* 'to' from (19a) is a primary preposition, while *nakanune* 'on the eve of' from (19b) is a secondary one, derived from the combination of the primary preposition *na* 'on' and the noun *kanun* 'eve'. Table 5.2 provides examples of primary and secondary prepositions, as classified in the Academy Grammar (Švedova 1980).

primary	secondary
za 'behind'	vnutri 'inside'
o 'about'	vokrug 'around'
meždu 'between'	protiv 'against'
bez 'without'	blagodarja 'thanks to'
krome 'besides'	pomimo 'besides'

Table 5.2: *Examples of primary and secondary prepositions*
(Švedova 1980)

Obviously, this classification, which is based on the etymology of a preposition, does not evidently capture any of the synchronic morphosyntactic distinctions among prepositions.

A similar but more formal classification of Russian prepositions is introduced in Yadroff & Franks (1999). They try to include more distinctions between Russian prepositions and also divide them into two groups: functional and lexical, which correspond to the primary and secondary prepositions, respectively. Etymology is just one of the criteria that Yadroff & Franks consider. They claim that the two groups have different phonological, syntactic and semantic properties. Some of the criteria they use are represented in Table 5.3.⁴

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
...	
<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
...	
<i>Semantics</i>	

⁴In the table, I preserve the terminology originally used by the authors.

L. Meaning abstract (hence polysemous)	L. Meaning concrete (therefore fixed)
--	---------------------------------------

Table 5.3: *Properties of functional and lexical prepositions (Yadroff & Franks 1999)*

Let us take two prepositions, *na* ‘on’, which is classified as a primary one, and *vokrug* ‘around’, which is a secondary one and analyse them with respect to Yadroff & Franks’s classification. The primary preposition *na* ‘on’ is a clitic which combines into one prosodic word with the following word and does not bear its own stress, it is monosyllabic and monomorphemic. The secondary prepositions *vokrug* ‘around’ is assumed to bear its own stress, it has two syllables and is composed of two morphemes (a prefix *vo* and a stem *krug*). The primary preposition *na* never occurs without a complement while the secondary preposition *vokrug* can be used as an adverb without a complement:

- (20) a. Posmotri na étu fotografiju.
look at this photo.
‘Look at this photo.’
- b. *Posmotri na!
look na
- (21) a. Zemlja vraščaetsja vokrug Solnca.
Earth revolves around Sun.
‘The Earth revolves around the Sun.’
- b. Posmotri vokrug!
look around
‘Look around!’

Finally, in approximative inversion contexts⁵ the order between a noun and a numeral is flipped and the primary preposition *za* but not the secondary preposition *blagodarja* can appear between the noun and the numeral:

⁵Approximative inversion is a phenomenon that reverses the standard word order between a numeral and a noun and creates the semantic effect of approximation:

- (i) a. dve butylki
two bottles
‘two bottles’
- b. butylki dve
bottles two
‘approximately two bottles’

- (22) a. časov **za** šest' (Yadroff & Franks, 1999:8)
 hours in six
 'in about six hours'
- a' ***za** časov šest'
 in hours six
- b. **blagodarja** zaprosam desjati
 thanks.to inquiries ten
 'thanks to about 10 inquiries'
- b' *zaposam **blagodarja** desjati
 inquiries thanks.to ten

It can be concluded with certainty that *na* is a functional preposition and *vokrug* is a lexical preposition in Yadroff & Franks's classification.

For some prepositions it is less clear under which category they fall. As Yadroff & Franks notice, there is some variation: a given preposition may have properties of both functional and lexical prepositions. For example, the preposition *skvoz'* 'through', which is classified as a secondary preposition in Švedova (1980), is expected to be a lexical preposition in Yadroff & Franks's classification. However, it is monosyllabic and monomorphemic and its position in approximative inversion contexts is flexible:

- (23) a. **skvoz'** sloëv pjat'
 through layers.GEN.PL five.ACC
- b. sloëv **skvoz'** pjat'
 layers.GEN.PL through five.ACC
 'through approximately five layers'

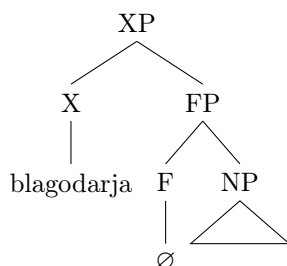
Esjkova (1996) also notices that some prepositions that are considered to be primary by Russian grammars actually behave similarly to the secondary ones (such as *krome* 'except', *meždu* 'between', *radi* 'for the sake of'). One of the diagnostics that she uses to differentiate between primary and secondary prepositions is the placement of a preposition with respect to the reciprocal pronoun *drug druga* 'each other'. Esjkova notices that primary prepositions should always be in the interposition of the two parts of the anaphor (see (24a)), while secondary prepositions tend to be preposed (24b) but sometimes can also appear in the interposition. The disputable prepositions listed above fall into the second group together with the secondary prepositions (24c), even though they are classified as primary in Švedova (1980):

- (24) a. (*k) drug (k) drugu
 to each to other
 'to each other'

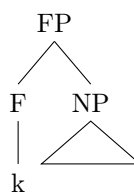
- b. (blagodarja) drug (*blagodarja) drugu
 thanks to each thanks to other
 ‘thanks to each other’
- c. (radi) drug (radi) druga
 for each for other
 ‘for the sake of each other’

Yadroff & Franks (1999) propose that functional and lexical prepositions correspond to different syntactic structures, and structures with lexical prepositions being more complex than structures with functional prepositions:⁶

(25) Lexical Ps:



(26) Functional Ps:



If syntactic complexity associated with a preposition could play a role in P-omission under sluicing, one would expect a categorical contrast between two types of preposition (omission of functional prepositions would be banned and omission of lexical prepositions would be allowed). This prediction is not borne out: as results from Philippova (2014) in table 5.1 above show, there is a gradual difference in acceptability of P-omission, and, for example, the difference in judgements between omission of a monosyllabic functional preposition and a bisyllabic lexical preposition is very small.

Strandability

There is another criterion that can divide Russian prepositions into two groups, presumably the most relevant one for P-omission under sluicing. While Russian is usually described as a non-P-stranding language, some Russian prepositions can be stranded, as shown in (27b). As (27a) illustrates, the strandable prepositions can also appear to the right of their complements, behaving as postpositions (Podobryaev 2009).⁷

⁶FP is a “generalized Functional Phrase”, which is associated with NP and contains functional features such as definiteness, case and θ -role (see Yadroff & Franks 1999:14 for details).

⁷Podobryaev provides the following (possibly, incomplete) list of these ambivalent adpositions: *radi* ‘for the sake of’, *vopreki* ‘contrary to’, *nazlo* ‘to spite (someone)’, *naperekor*

- (27) Podobryaev (2009:4)
- a. [**Navstreču** komu] / [Komu **navstreču**] ty bežal?
towards whom whom towards you ran
- b. Komu ty bežal **navstreču**?
whom you ran towards
'Towards whom did you run?'

Surprisingly, however, strandability seems to have no effect on P-omission under sluicing, as shown in Philippova (2014). According to her, there is no significant difference in the judgements between the omission of the strandable and non-strandable prepositions in the context of sluicing.

Consider the contrast between (28) and (29). There is a categorical contrast between strandable and non-strandable prepositions in *wh*-questions: stranding of the preposition is grammatical in (28a) and ungrammatical in (28b).

- (28) a. Komu on èto sdelal **nazlo**?
who.DAT he this did to.spite
'To spite whom did he do that?'
- b. *Kogo on sprašival **naščët**?
who.GEN they talked regarding
'Regarding whom did they talk?'

If strandability of a preposition played a role in P-omission, we would expect to see the same categorical contrast in the sluiced equivalents of the sentences in (28). However, it is not the case: the examples in (29) are equal in their acceptability, which can vary among speakers (the judgements indicate average across speakers).⁸

- (29) a. ? On sdelal èto **nazlo** komu-to, no ja ne znaju,
he did this to.spite someone.DAT but I not know
komu.
who.DAT
'He did it to spite someone but I don't know who.'
- b. ? On sprašival **naščët** kogo-to, no ja ne pomnu,
he asked regarding someone but I not remember
kogo.
who
'He asked about someone but I do not remember who.'

⁸'counter to', *vsled* 'following after (someone)', *navstreču* 'towards', *spustja* 'after'. While all strandable prepositions arguably fall into the class of lexical prepositions, not all lexical prepositions are strandable.

⁸The examples in (29) were part of the online grammaticality survey presented in section 5.3.

If the derivation of (29a) involved stranding of a preposition in the ellipsis site, as in (30), we would expect it to be perfectly grammatical.

- (30) On sdelal èto **nazlo** komu-to, no ja ne znaju, komu
 he did this to.spite someone.DAT but I not know who.DAT
 on èto sdelal **nazlo**.
 he it did to.spite
 ‘He did it to spite someone but I don’t know who.’

The case of P’s complement

There is one property of Russian prepositions that received almost no attention in the literature in connection to P-omission, as far as I am aware of: the case that a preposition assigns to its complement. Traditionally, the Russian case system is described as consisting of six cases: nominative, accusative, genitive, dative, instrumental and prepositional⁹. The complement of a preposition can receive any case except nominative.

As discussed above, van Craenenbroeck (2012) notices that P-omission under sluicing improves when the remnant of sluicing (and the complement of a preposition) can be interpreted as nominative:

- (31) van Craenenbroeck (2012:13)
- a. On vystrelil vo èto-to, no ja ne znau, ??(vo)
 he shot at something but I not know at
 èto.
 what.ACC/NOM
 ‘He shot at something but I don’t know (at) what.’
- b. On vystrelil v kogo-to, no ja ne znau, *(v) kogo.
 he shot at someone but I not know at who.ACC
 ‘He shot at someone but I don’t know (at) who.’

To check if other cases affect the possibility to omit a preposition under sluicing, I conducted a pilot online grammaticality judgement survey. The survey included 15 experimental sentences with prepositions assigning different cases to their complements. Table 5.4 demonstrates prepositions used in the survey: there were 3 prepositions for each case: accusative (ACC), dative (DAT), genitive (GEN), instrumental (INST), prepositional (PREP).¹⁰

⁹‘Prepositional’ is a name traditionally used in Russian grammars. Historically, this case originates from locative but have a number of other uses in modern language. As the name suggests, prepositional case always appears with an overt preposition: *v lesu* ‘in forest.PREP’, **lesu* ‘forest.PREP’.

¹⁰One preposition can assign different cases to its complement depending on semantics.

ACC	DAT	GEN	INST	PREP
<i>v</i> 'in'	<i>k</i> 'to'	<i>s</i> 'from'	<i>s</i> 'with'	<i>v</i> 'in'
<i>za</i> 'behind'	<i>po</i> 'on'	<i>dlja</i> 'for'	<i>za</i> 'behind'	<i>na</i> 'on'
<i>na</i> 'on'	<i>vsled</i> 'following'	<i>do</i> 'to'	<i>nad</i> 'above'	<i>o</i> 'about'

Table 5.4: *Preposition used in the survey on case*

16 native speakers of Russian were asked to judge the sentences in the survey on the scale from 1 (bad) to 5 (good). The sentences were presented in small dialogues and the participants were instructed to only judge the reply part of each dialogue. An example of dialogues used is shown in (32).

- (32) Q: On sobiraetsja prodolžat' pisat' knigi?
 he going.to continue write books
 'Is he going to continue writing books?'
 A: Da, on uže rabotaet **nad** čem-to.INST, no nikto ne
 yes he already working on something but noone not
 znaet, čem.INST.
 know what
 'Yes, he is already working on something, but no one knows
 what.'

The results of the survey (mean and standard deviation) are presented in table 5.5.

	ACC	DAT	GEN	INST	PREP
MEAN	2.11	2.16	2.38	1.93	1.44
SD	1.23	0.95	1.03	1.18	0.76

Table 5.5: *Results of the survey on case*
(scale 1 – 5)

Note that the preposition used in the survey were non- or monosyllabic, therefore the judgements are quite low, as predicted based on table 5.1.¹¹ Omission of prepositions that assign prepositional case was judged as the least acceptable. It is expected considering that prepositional case always requires a phonologically realised preposition (see Pesetsky (2012)

¹¹Non- and monosyllabic prepositions were chosen to eliminate the effect of phonological weight of a preposition on the possibility of P-omission.

a.o.). Consider (33): the preposition *na* ‘on’ can assign either accusative or prepositional case. Example (33a) received relatively high judgements, since it involves a form of the pronoun syncretic between accusative and nominative case, while (33b) received much lower judgements since it involves a pronoun in prepositional case, which never occurs without a preposition.

- (33) a. Remnant in ACC/NOM mean: 3.00
 Ja sela na čto-to, no ja ne znaju, ?(**na**)
 I sat on something.ACC but I not know on
 čto.
 what.ACC/NOM
 ‘I sat on something, but I don’t know (on) what.’
- b. Remnant in PREP mean: 1.33
 On ženilsja na kom-to, no nikto ne znaet, *(
 He married on somebody.PREP but nobody not know
na) kom.
 on who.PREP
 ‘He married somebody, but nobody knows who.’

Finally, one sentence was excluded from the results because it received much higher judgements than the other experimental sentences. The sentence contained the preposition *vsled* ‘following’, see (34). Later in this chapter I will argue that even though *vsled* is a monosyllabic preposition, it is phonologically heavier than most of the other monosyllabic prepositions and its omission under sluicing is therefore more acceptable.

- (34) Omission of preposition *vsled* ‘following’ mean: 4.33
 Maša prosto ulybalas’ vsled komu-to, ja daže ne znau,
 Maša just smiled following someone.’DAT I even not know
 komu.
 who.DAT
 ‘Maša was just smiling watching someone go, I don’t even know, who.’

I conclude based on the results presented in this section that while case assigned by a preposition should be taken into account and controlled for, it cannot be solely responsible for the differences between prepositions with respect to P-omission, and neither can strandability of a preposition or its morphosyntactic status, as discussed above. Phonological status of a preposition is another aspect that prepositions vary in and that can affect the possibility of P-omission. The next section introduces phonological properties of Russian prepositions.

5.2.2 Phonological properties

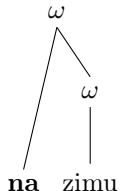
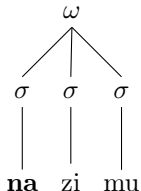
From the phonological point of view, Russian prepositions are also divided into two groups: phonologically weak elements that cliticise onto the following ω (light prepositions) and those which are assumed to be independent ω s (heavier prepositions). Previous literature focuses exclusively on the phonologically light and clitic prepositions, paying little attention to the heavier non-clitic prepositions.

Light prepositions

Phonologically light prepositions in Russian are proclitics: they do not constitute ω s on their own but lean on the following ω . As discussed in chapter 2, according to Selkirk (1996), there are three types of clitics with respect to how they incorporate into the prosodic domain of their host:¹²

- (35) a. $(fnc\ lex)_{\omega}_{\phi}$ free clitic
 b. $((fnc\ lex)_{\omega})_{\phi}$ internal clitic
 c. $((fnc\ (lex)_{\omega})_{\omega})_{\phi}$ affixal clitic

Padgett (2012) (following Zubritskaya 1995) argues that Russian prepositions adjoin to the following ω and create a recursive structure. As such, they are affixal clitics in Selkirk's terms, as in (36a). Blumenfeld (2012) and Blumenfeld & Gribanova (2013) suggest that two options are available for Russian prepositions: they can either be adjuncts to the following ω or they can be integrated into it, i.e. to be internal clitics, as in (36b), with adjunction being the default option.¹³ For example, the PP *na zimu* 'for winter.ACC' can be parsed in two different ways:

- (36) a.  b. 

What is important for the discussion here is the fact that light prepositions normally do not form independent ω s. In the remainder of this section, I summarise the relevant argumentation for the dependent prosodic

¹²In Selkirk's examples, *fnc* and *lex* stand for the phonological content of functional and lexical words, respectively (e.g. a preposition may be considered as *fnc* and its complement as *lex*).

¹³See Blumenfeld (2012) and Blumenfeld & Gribanova (2013) for the details on how the two options can be distinguished.

There are two more phonological rules that confirm that Russian primary prepositions form one ω with their complement: devoicing and voicing assimilation of obstruents. Devoicing occurs at the right edge of ω in Russian (see Padgett 2012, Blumenfeld 2012, a.o.). Since primary prepositions are not independent ω s, their final consonants are not devoiced (40a). Final obstruents of the independent prosodic words are always devoiced, as (40b) demonstrates.

- (40) a. nad rozoj ‘above the rose.INST’ → [nɛd rózəj]
 b. sad Rozy ‘garden of Roza’ → [sát] [rózi]

Finally, in Russian obstruents agree in voicing with the following obstruent within a ω . If a preposition ends in a voiceless obstruent, it is realised as voiced when followed by a voiced obstruent. Obstruents show their underlying voicing quality before sonorants. (41a) demonstrates that the preposition *ot* ‘from’ ends with a voiceless obstruent, and (41b) shows that it agrees in voicing with the following voiced obstruent. It can be concluded once again that the preposition forms a single ω with the following word.¹⁴

- (41) a. ot mamy ‘from mother’ → [ɐt] mamy
 b. ot babuški ‘from grandmother’ → [ɐd] babuški

Summing up, the tests discussed in the current section indicate that primary, phonologically light prepositions form one ω with the following word.

Heavy prepositions

Recall that heavier prepositions are generally claimed to bear stress and form independent prosodic words. Blumenfeld (2012) briefly notices that such prepositions (he mentions *okolo* ‘near’, *među* ‘between’, and *vokrug* ‘around’) behave like separate prosodic words with respect to the tests discussed in this section. For example, he shows that these prepositions bear their own stress and form a separate domain of vowel reduction. This is illustrated in (42a), in which the final vowel of the preposition is realised as [ə]. If the preposition formed one ω with the following word, this vowel would be pretonic, and hence realised as [ɐ]. These stressed prepositions also undergo final devoicing (42b).

- (42) a. ókolo dóma ‘near the house’ → [ókələ] dóma
 b. vokrúg dóma ‘around the house’ → [vəkrúk] dóma

¹⁴I leave the question whether the preposition under discussion is an affixal or internal clitic open here, as it is not crucial for the current discussion.

However, not all polysyllabic prepositions behave in the same way. Gribanova (2008) includes *čerez* ‘across’ into the class of non-clitic prepositions (along with *skvoz^ʃ* ‘through’), although phonetic studies show that it behaves exactly like light prepositions with respect to vowel reduction and obstruent assimilation and devoicing (Kalenčuk & Kasatkina 2013). For example, the final consonant of the preposition *čerez* in (43a) is not devoiced, which means that the preposition does not form a separate ω ,¹⁵ as opposed to the preposition *skvoz^ʃ* in (43b).

- (43) a. *čerez rozy* ‘through (the) rozes’ → *čere[z]* rozy
 b. *skvoz^ʃ rozy* ‘through (the) rozes’ → *skvo[s^ʃ]* rozy

Certain larger prepositions (for example, *krome* ‘except, besides’ and *meždu* ‘between’) are sometimes characterised as “weakly stressed” (Yadroff 1999, Švedova 1980). Kedrova et al. (2002) notice that weakly stressed words are usually those that constitute some intermediate stage between lexical and functional categories. It remains unclear, though, what “weakly stressed” means. I leave this question for further experimental studies, but I take that claim to be a reason to believe that at least some larger prepositions do not form “normal” prosodic words and differ in that sense from other larger prepositions and lexical words. Moreover, the preposition listed above are considered to be primary in Švedova (1980) and therefore expected to be clitic, but Kalenčuk & Kasatkina (2013) show that they behave as independent prosodic word.

To sum up, some of the polysyllabic prepositions are sometimes wrongly assumed to be independent ω s, while, in fact, they group together with most primary prepositions and are phonologically weak. On the other hand, some prepositions that are normally classified as primary are in fact independent ω s, and possibly should be treated separately at least concerning their prosodic behaviour. In section 5.4, I propose that such prepositions differ from light primary prepositions on the one hand and from heavy secondary prepositions (such as *nakanune* ‘on the eve of’) on the other.

Before that, in the following section, I discuss the relevance of a phonological status of a preposition for P-omission under sluicing.

¹⁵The same holds for the preposition *pered* ‘in front of’. Both prepositions are considered to be primary by Švedova (1980). As we can see, this is an adequate classification at least from the phonological point of view.

5.3 Phonological weight and P-omission: A case study

As mentioned above, Philippova (2014) conducted a study on P-omission under sluicing in Russian and concluded that the acceptance of P-less sluices increases gradually with the increase of the number of P's syllables. Table 5.6 shows the mean values and the standard deviation for the sentences with P-omission grouped according to the number of syllables of the omitted preposition, from non-syllabic prepositions consisting of only one consonant (such as *s* 'with') to quadri-syllabic prepositions (such as *blagodarja* 'owing to').

	0 SYLL	1 SYLL	2 SYLL	3 SYLL	4 SYLL
mean	2.93	3.06	3.33	3.49	3.59
SD	1.07	1.05	1.08	1.04	0.95

Table 5.6: Results of the survey conducted by Philippova (2014)

As the data shows, the mean judgement for non-syllabic prepositions is actually quite far from strictly ungrammatical. As explained in the original paper, this may be due to the type of the *wh*-element used in the experimental sentences: complex *wh*-phrases are known to allow for P-omission under sluicing easier than simple ones for various reasons in various languages (see Szczegielniak 2006, Nykiel 2013 for Polish and Rodrigues et al. 2009 for Spanish and Brazilian Portuguese), and in Russian even omission of light prepositions are never absolutely unacceptable in this case. All of Philippova's experimental sentences contain complex *wh*-phrases such as *what/whose/which NP* with an elided NP, similar to (44).

(44) (Philippova 2014, p. 139)

Scenu ubrali ot-sjuda [PP posle kakogo-to
 stage.ACC removed.3PL from-here after what.GEN-INDF
 meroprijatija] no ja ponjatija ne imeju **kakogo**.
 event.GEN but I idea not have what.GEN

'They removed the stage from here after some event, but I have no idea what.'

In the next section, I explore the conditions on P-omission further. To eliminate the confounds connected to the complexity of the *wh*-phrase in the remnant, I conducted another online grammaticality judgement survey, which used simple *wh*-phrases to establish the baseline for the research on P-omission in Russian.

5.3.1 Design of the survey

The prepositions used in the survey varied in their phonological weight, ranging from 0 to 5 syllables, and assigned either genitive or dative case to their complement (to eliminate potential affect of case on P-omission, which is discussed above). See Table 5.7 for the complete list of the prepositions used in the questionnaire.¹⁶

	GEN	DAT
0	s ‘with’	k ‘to’
1	dlja ‘for’	po ‘along’
	u ‘at’	vsled ‘following after’
2	protiv ‘against’	nazlo ‘to spite’
	nasčēt ‘concerning’	
3	okolo ‘near’	vopreki ‘despite’
		navstreču ‘towards’
4	po povodu ‘regarding’	blagodarja ‘thanks to’
5	otnositel’no ‘regarding’	

Table 5.7: *Prepositions used in the survey on P-omission under sluicing with simple wh-phrases*

15 experimental sentences with the prepositions from Table 5.7 occurred as a part of a small dialogue as an answer to a question, see (45) and (46).¹⁷ The participants were instructed to judge the second line of the dialog only.

(45) An example of an experimental stimulus:

- A: Počemu Vladimir Vladimirovič zapersja v svoëm
 why Vladimir Vladimirovič locked-himself in own
 kabinetě?
 office
 ‘Why did Vladimir Vladimirovič locked himself in his of-
 fice?’
- B: On gotovitsja k čemu-to, no my ne znaem,
 He prepares to something.DAT but we not know
 čemu.
 what.DAT

¹⁶The prepositions *vopreki* ‘despite’ and *vsled* ‘following after’ were later excluded from the study after some speakers indicated that the examples with these prepositions are not well-formed for reasons independent of P-omission.

¹⁷The list of the dialogues used in the survey can be found in Appendix 6.2.

‘He is preparing for something but we don’t know what.’

(46) An example of an experimental stimulus:

A: Začem Ivanovy priezžali k Maše?
why Ivanovs arrived to Maša

‘What did Ivanovs come to Maša for?’

B: Oni sovetovalis’ **po povodu** čego-to, no ja ne
they consulted concerning something.GEN but I not
znaju, čego.
know what.GEN

‘They consulted about something, but I don’t know what.’

All the target sentences were structurally similar: they only contained instances of embedded sluicing, the remnant was always a simple *wh*-phrase (*who* or *what*), and the indefinite pronoun was always final in the antecedent clause.

18 native speakers of Russian participated in the experiment. They were asked to judge the presented sentences on the scale from 1 (bad) to 5 (good). The target sentences were presented in a pseudo-random order with 20 fillers, designed similarly to the target sentences but not containing any prepositions.

5.3.2 Results of the survey

The results of the survey are represented in Table 5.8 (mean and standard deviation). The results demonstrate the same general pattern that was observed for complex *wh*-remnants by Philippova (2014).

	0	1	2	3	4-5
mean	2.03	1.91	3.26	3.33	3.78
SD	1.16	0.92	1.26	1.33	1.02

Table 5.8: *Results of the survey on P-omission under sluicing with simple wh-phrases*

The results are similar to those of Philippova (2014), but they differ in the judgements for the omission of light prepositions: while omission of heavy prepositions was judged almost identically in both surveys, there is a crucial difference in the case of non- and monosyllabic prepositions. The omission of small prepositions from the remnant with bare *wh*-phrases results in considerably more degraded judgements.

I believe, however, that the number of syllables is not a precise representation of the phonological weight of a preposition. Some monosyllabic prepositions (such as *vsled* ‘following’) are arguably phonologically heavier than the others (such as *o* ‘about’). For example, Philippova (2014) points out that the omission of the disyllabic preposition *čerez* ‘through’ receives lower judgements in her survey than the other bisyllabic preposition.

Below I argue that prepositions can be divided not into two but into three prosodic classes and that the possibility to omit a preposition under sluicing depends on its prosodic status.

5.4 Prosodic structures of Russian Ps

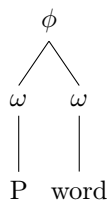
In this section, I propose recursive prosodic structure for certain Russian prepositions. Later, in section 5.5, I claim that P-omission under sluicing is sensitive to the prosodic status of a preposition, which leads to the conclusion that P-omission under sluicing is a post-syntactic process.

Based on the facts discussed above, I suggest that there are three phonological types of prepositions in Russian, which differ in their prosodic properties.

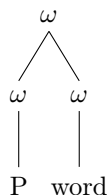
I adopt the structures for light and heavy prepositions from the previous literature. Light prepositions do not form ω s of their own but are combined with the following ω s, they can be either internal or affixal clitics, so both structures in (47a) and (47b) are possible, as discussed above.

- (47) a. *Light P (affixal clitic)* b. *Light P (internal clitic)*
- | | |
|--|--|
| $\begin{array}{c} \omega \\ \diagup \quad \diagdown \\ \sigma \quad \omega \\ \quad \\ \text{P} \quad \text{word} \end{array}$ | $\begin{array}{c} \omega \\ \diagup \quad \diagdown \\ \sigma \quad \sigma \\ \quad \\ \text{P} \quad \text{word} \end{array}$ |
|--|--|

Phonologically heavy prepositions (such as *navstreču* ‘towards’) form an independent ω , as shown in (48). These prepositions behave as independent prosodic words with respect to stress, vowel reduction, and consonant devoicing.

(48) *Heavy P (independent ω)*

I propose that there is, in addition, an intermediate class of prepositions (such as *vokrug* ‘around’ and *okolo* ‘near’), which have a recursive structure: they constitute ω by themselves, but they are also grouped together with the following ω into yet another, larger instance of ω , which is illustrated in (49).

(49) *Intermediate P (recursive ω)*

Phonologically it is easy to differentiate between light prepositions on the one hand and intermediate and heavy prepositions on the other, since the former ones do not form a ω , while the latter ones do. Phonological differences between intermediate and heavy prepositions are more subtle: since they are ω s, they are expected to behave similarly with respect to vowel reduction, final devoicing, and consonant assimilation. The advantage of postulating two different structures for these two classes of prepositions is the possibility of explaining the less independent status of intermediate prepositions. As mentioned above, certain larger prepositions that I call intermediate here (for example, *krome* ‘except, besides’ and *meždu* ‘between’) are reported to be “weakly stressed” (Yadroff 1999, Švedova 1980).

The structure in (49) can capture this special quality of intermediate prepositions. The same structure is often proposed for compounds in different languages¹⁸ (see Booij 1995, Ito & Mester 2006 among many others). Compounds are two prosodic words which are known to behave as a single phonological unit with respect to (at least) stress: they have a single main stress and a secondary stress. In Russian the second part of a compound, i.e. the right ω , carries the main stress. Consider (50): the

¹⁸However, see Gouskova (2011) for a different analysis of Russian compounds.

two words *oboróna* ‘defense’ and *sposóbnost’* ‘capability’ are connected into a compound using the linking vowel *o* (which is a common strategy of compound formation in Russian). While both words normally carry stress, in the compound the stress of the second word is realised as a secondary stress.

(50) *oboròn-o-sposóbnost’* ‘defense capability’ Gouskova (2011:7)

In the case of intermediate prepositions, their complement (the right ω) carries main stress, while a preposition is “weakly stressed”. If the weak stress of intermediate prepositions and the secondary stress of compounds are alike (which needs to be tested in future work), the proposed structure represents it perfectly.

Intermediate prepositions are also the ones that have disputable status with respect to the primary-secondary distinction. Section 5.2.1 mentions that some of the prepositions traditionally classified as primary (*krome* ‘except’, *meždu* ‘between’, *radi* ‘for the sake of’) proved to be closer to the secondary ones in Esjkova (1996). Recall that Esjkova discusses the placement of a preposition with respect to the reciprocal pronoun *drug druga* ‘each other’. She notices that primary prepositions should always be in the interposition (see (51a)), while secondary prepositions tend to be preposed (51b). A closer examination reveals that it is the intermediate prepositions that allow for both positions (51c).

- (51) a. *Light P: interposition*
 (***k**) drug (**k**) drugu
 to each to other
 ‘to each other’
- b. *Heavy P: preposed*
 (**blagodarja**) drug (***blagodarja**) drugu
 thanks to each thanks to other
 ‘thanks to each other’
- c. *Intermediate P: both*
 (**radi**) drug (**radi**) druga
 for each for other
 ‘for the sake of each other’

The same holds for negative pronouns such as *nikto* ‘nobody’ and *ničto*

‘nothing’, as shown in (52).^{19,20} This once again indicates that there are three distinct classes of prepositions in Russian.

- (52) a. *Light P: interposition*
 *o nikom ni o kom
 ‘about nobody.PREP’
- b. *Heavy P: preposed*
 navstreču nikomu *ni navstreču komu
 ‘towards nobody.DAT’
- c. *Intermediate P: both*
 posle nikogo ni posle kogo
 ‘after nobody.GEN’

To conclude, the division of Russian prepositions into three distinct groups instead of two captures the data more accurately. The next section discusses the connection between the prosodic status of a preposition and its deletion under sluicing.

5.5 Accounting for P-omission in sluicing: Late phonological deletion

In the previous section, I argued that phonological weight reflects the prosodic status of a preposition and that there are not two but three prosodic types of prepositions in Russian. In this section, I propose that the possibility of P-omission under sluicing depends on the prosodic nature of a preposition.

The results of the survey described in section 5.3 can be regrouped to demonstrate this dependency. The mean values of sentences with P-omission in Table 5.9 are grouped with respect to the presumed prosodic status of the omitted preposition. This way three quite distinct groups emerge.

¹⁹This may indicate that the position of a preposition with respect to certain pronouns is also affected by its prosodic status. However, it can also be the case that the prosodic status of a preposition reflects its syntactic or morphological characteristics. I leave this question open here.

²⁰The morpheme *ni* occurs in the negative concord environments and cannot appear on its own (without clausal negation).

	light Ps (fnc (lex) _ω) _ω	intermediate Ps ((fnc) _ω (lex) _ω) _ω	heavy Ps (fnc) _ω (lex) _ω
mean	1.96	3.13	3.82
SD	1.02	1.29	1.03

Table 5.9: Mean judgements of sentences with P-omission from section 5.3 regrouped in terms of prosodic structure

Table 5.10 shows which prepositions used in the survey are categorised as light, intermediate, or heavy.

LIGHT	INTERMEDIATE	HEAVY
s ‘with’	vsled ‘following after’	vopreki ‘despite’
k ‘to’	protiv ‘against’	navstreču ‘towards’
dlja ‘for’	nazlo ‘to spite’	po povodu ‘regarding’
po ‘along’	nasčēt ‘concerning’	blagodarja ‘thanks to’
u ‘at’	okolo ‘near’	otnositel’no ‘regarding’

Table 5.10: Prepositions used in the survey on P-omission under sluicing with simple *wh*-phrases

The main question now is: why is it the case that phonologically heavy prepositions can be omitted more easily than light prepositions? If one considers that the PSG holds, P-omission under sluicing is predicted to be ungrammatical regardless the phonological weight of a preposition. However, as the results of the survey show, this prediction is not borne out. For example, the trisyllabic preposition *okolo* ‘near’ cannot be stranded under regular *wh*-movement (53a) but its omission under sluicing is much more acceptable (53b).

- (53) a. * Ona sidela **okolo** čego-to, no ja ne videla,
 she sat near something.GEN but I not saw
 čego ona sidela **okolo**.
 what.GEN she sat near
 ‘She was sitting near something, but I didn’t see what she was sitting near.’
- b. ? Ona sidela **okolo** čego-to, no ja ne videla,
 she sat near something.GEN but I not saw
 čego.
 what.GEN
 ‘She was sitting near something, but I didn’t see what.’

Since I assume that PSG holds, I adhere to the analysis proposed in Stjepanović (2008, 2012) for Serbo-Croatian and assume that P-less sluices such as (53b) do not involve P-stranding in the ellipsis site.

Recall that Stjepanović introduces a separate operation of preposition deletion under sluicing, which comes into effect only after sluicing takes place. In (54), the derivation is demonstrated on a Russian example: (54a) shows the whole PP moving out of the ellipsis site; in (54b) the TP gets elided, and only after that, as can be seen from (54c), the preposition is deleted (indicated by the grey colour).

(54) Stepwise derivation of P-omission under sluicing in Russian:

a. *Step 1. Wh-movement with the pied-piped preposition*

Ona sidela okolo kogo-to, no ja ne videl, [_{CP} **okolo**
she sat near someone.GEN but I not saw near
kogo]_i [_{TP} ona sidela t_i].
who.GEN she sat

b. *Step 2. TP-deletion*

Ona sidela okolo kogo-to, no ja ne videl, [_{CP} **okolo**
she sat near someone.GEN but I not saw near
kogo [_{TP} ~~ona sidela~~]].
who.GEN she sat

c. *Step 3. P-omission*

Ona sidela okolo kogo-to, no ja ne videl, [_{CP} okolo
she sat near someone.GEN but I not saw near
kogo].
who.GEN

‘She was sitting near someone, but I didn’t see who.’

Since a preposition cannot be omitted without sluicing, the right conditions for the deletion of the preposition must be created after TP-deletion. Stjepanović finds the reasons for which this P-omission occurs “somewhat mysterious”, but believes that it takes place at PF. The data presented here confirms this hypothesis, since P-omission is shown to be sensitive to the prosodic organisation of a sentence.

P-omission cannot delete a unit smaller than a prosodic word: deletion of a preposition adjoined to the next ω , but not forming a ω by itself (light Ps) is generally banned, see (55a). Although degraded, the deletion of parts of a ω is tolerated as long as the domain of deletion is minimally a ω itself (intermediate Ps, (55b)). Deletion of a free ω (i.e. heavy Ps, (55c)) is allowed.

- (55) a. *Ban on deletion of a sub- ω*
 * On ženiljsja na kom-to, no nikto ne znaet,
 He married on somebody.PREP but nobody not know
 (na (kom) $_{\omega}$) $_{\omega}$.
 on who.PREP
 ‘He married somebody, but nobody knows who.’
- b. *Degraded deletion of an embedded ω*
 ? Ona sidela okolo čego-to, no ja ne videla,
 she sat near something.GEN but I not saw
 ((okolo) $_{\omega}$ (čego) $_{\omega}$) $_{\omega}$.
 near what.GEN
 ‘She was sitting near something, but I didn’t see what’
- c. *Deletion of an independent ω*
 Oni sovetovalis’ po povodu čego-to, no ja ne
 they consulted concerning something.GEN but I not
 znaju, (po povodu) $_{\omega}$ (čego) $_{\omega}$.
 know concerning what.GEN
 ‘They consulted about something, but I don’t know what.’

A condition on P-omission can therefore be formulated as (56).

- (56) *A condition on P-omission under sluicing*
 The domain of P-omission is minimally a ω .

The sensitivity of P-omission to the prosodic structure reveals its late timing and confirms that it operates late at PF, at least after the formation of the prosodic structure of a sentence.

Another question is whether this proposal can be extended to multiple sluicing and other types of ellipsis. As a multiple *wh*-fronting language, Russian naturally allows for sluicing with multiple remnants (see Grebenyova 2009, 2012), but forbids P-omission in these cases.

- (57) Každyj rebënok tanceval s kem-to, no ja ne
 every child danced with someone.INST but I not
 pomnu, kto *(s) kem.
 remember who with who.INST
 lit: ‘Every child danced with somebody but I don’t remember who with whom’.

According to my intuition, the omission of a heavy preposition leads to a better result than omission of a light preposition even in multiple sluicing, compare (57) and (58).

- (58) Každýj rebënok vybežal navstreču komu-to, no ja ne
 every child ran.out towards someone.DAT but I not
 znaju, kto ?(navstreču) komu.
 know who towards who.DAT
 lit: 'Every child ran out towards somebody but I don't know who
 towards whom'.

It is important to keep in mind that prosody plays an important role for the acceptability of P-omission. According to some speakers, sentences like (58) with the omitted preposition become much more acceptable while pronouncing it with the longer pause between the two *wh*-remnants (possibly forcing their parsing into separate prosodic units). Stressing the preposition in the antecedent clause also helps to improve sentences with P-omission. The influence of the prosodic pattern of the P-less sluices on their well-formedness remains to be determined.

As for other types of ellipsis, P-omission seems possible under gapping as well. In this case it is subject to the same prosodic restrictions: (59a) with the light preposition missing is much less acceptable than (59b) with omission of the heavy preposition (the judgements are mine).

- (59) a. Vanja šël k sestre, a Katja – *(k) bratu.
 Vanja went to sister and Katja to brother
 'Vanja was going to his sister, and Katja (to) her brother.'
- b. Vanja šël navstreču sestre, a Katja – (navstreču)
 Vanja went towards sister and Katja towards
 bratu.
 brother
 'Vanja was going towards his sister, and Katja (towards) her
 brother.'

A question that remains open is why P-omission cannot occur without sluicing. P-less non-elliptical sentences, such as (60), are ungrammatical.

- (60) *Ona sidela okolo kogo-to, no ja ne videl, ~~okolo~~
 she sat near someone.GEN but I not saw near
 kogo ona sidela.
 who.GEN she sat
 int: 'She was sitting near someone, but I didn't see (near) who
 she sat'.

While an explanation of this connection between P-omission and sluicing is still to be found, the plausibility of the analysis of P-omission under

sluicing in terms of the late phonological deletion of a preposition is supported by the fact that similar ellipsis-dependent instances of omission have been proposed for other languages.

An (2016, 2019) describes what he calls “extra deletion” (ED) in Korean. He shows that in fragment answers and right node raising contexts case markers, postpositions, and sometimes even head nouns can be deleted when adjacent to the ellipsis site. He argues that in these cases, PF-deletion of a constituent (in this case, TP) extends into the remnant. Example (61) demonstrates the way in which a caseless fragment answer is derived: after the remnant moves out of the ellipsis site, the TP is elided by the standard PF deletion process, which extends and deletes “a bit more”, in this case the case marker (indicated with bold strikethrough). ED in Korean is therefore a process quite similar to P-omission in Russian.

- (61) Q: *nwu-ka John-ul manna-ss-ni?*
 who-NOM John-ACC meet-PAST-Q
 ‘Who met John?’
 A: Mary- ~~**ka_i**~~ [*TP t_i John-ul manna-ss-e*]
 Mary-NOM John-ACC meet-PAST-DEC
 ‘Mary (met John).’

An emphasises that ED operates on a string because the elided material has to be linearly adjacent to the ellipsis site. (62a) is similar to the answer in (61), it shows that the omission of a case marker adjacent to the ellipsis site is allowed. (62b) on the other hand is ungrammatical. According to An, this is precisely because the deleted string is discontinuous: the omitted nominative marker is not adjacent to the material which undergoes ellipsis during the fragment answer formation.

- (62) *nwu-ka nwukwu-lul manna-ss-ni?*
 who-NOM who-ACC meet-PAST-Q
 ‘Who met whom?’
 a. Cho-ka_i Yang- ~~**ul_j**~~ [*TP t_i t_j manna-ss-e*]
 Cho-NOM Yang-ACC meet-PAST-DEC
 ‘Cho (met) Yang.’
 b. * Cho- ~~**ka_i**~~ Yang- ~~**ul_j**~~ [*TP t_i t_j manna-ss-e*]
 Cho-NOM Yang-ACC meet-PAST-DEC

This is not the case for P-omission in Russian and Serbo-Croatian: the preposition is separated from the ellipsis site by the *wh*-word.²¹ Therefore if P-omission and ED have the same restrictions, (63) should be banned, which is not the case.

²¹This is of course only true under the *move-and-delete* approach to sluicing, adopted here.

- (63) ? Ona sidela okolo kogo-to, no ja ne videl, [okolo
 she sat near someone.GEN but I not saw near
 kogo]_i [~~ona sidela t_i~~].
 who.GEN she sat
 ‘She was sitting near someone, but I didn’t see who.’

It is still possible that P-omission is an operation of the same type as the extra deletion proposed by An. It can be the case that the edge from which the extra deletion is allowed is language-specific: while it is the right edge of some prosodic domain for Korean, it is the left edge for Russian. The adjacency to the ellipsis site in Korean might therefore be a coincidence.²²

5.6 Conclusion

This chapter explores the interaction of phonologically weak items with ellipsis in the case of P-omission under sluicing in Russian. Cross-linguistically, there are three options why a preposition can go missing from the sluicing remnant:

- (a) the preposition is stranded inside the ellipsis site;
- (b) the source of ellipsis is not isomorphic to the antecedent and does not include a preposition;
- (c) the preposition is deleted by a separate post-syntactic operation.

It is possible that all three options are available for Russian, since i) there are strandable prepositions in Russian; ii) the possibility to interpret a sluiced remnant as a cleft pivot makes P-omission more acceptable; iii) P-omission is still possible for non-strandable prepositions and when the remnant cannot be interpreted as a cleft pivot, and it is sensitive to the prosodic status of a preposition.

If P-omission in Russian is sensitive to the prosodic organisation of a sentence and is thus a late PF process, it can be viewed as a purely phonological deletion. Stjepanović (2012) observes that conditions on P-omission under sluicing are the same as conditions on deaccentuation:

²²Another deletion operation (potentially similar to P-omission) which is parasitic on ellipsis is determiner deletion under gapping, as proposed by Schwarzer (2019). She proposes that cases like (i) involve gapping followed by the left edge deletion (indicated by the grey colour).

- (i) John will always kiss all the girls first and ~~kiss~~ all the boys after.

the omitted preposition should be given and it cannot be (contrastively) focused. It can be the case that P-omission is actually a case of radical deaccenting. Ellipsis was analysed as radical deaccenting in Tancredi (1992), Chomsky & Lasnik (1993):

...elliptical sentences are formed by a rule of the PF component that deletes the phonologically redundant information that is characterised by a distinguished low-flat intonation.

Chomsky & Lasnik (1993:564)

Being given, a preposition in a sluiced remnant can readily be considered “redundant information”. It can only be deaccented, however, if it does not cliticise to the focused *wh*-element.

Separating P-omission from sluicing potentially expands our understanding of elliptical processes: while there are undoubtedly types of ellipsis licensed syntactically (e.g. sluicing, VP ellipsis, NP ellipsis, etc.), there are also instances of ellipsis occurring exclusively at PF, such as P-omission under sluicing in Russian (and potentially in Serbo-Croatian and other non-P-stranding languages) and extra deletion in fragment answers and right node raising environments in Korean.