PREPOSITION STRANDING UNDER SLUICING IN SERBO-CROATIAN

ABSTRACT: The paper provides an analysis for preposition stranding (P-stranding) under sluicing in Serbo-Croatian (SC). SC does not allow P-stranding under regular wh-movement, yet it optionally allows it under sluicing. I show instances of sluicing in which P-stranding can occur and I propose an analysis that accounts for this. In SC, D-linked wh-remnants can optionally appear without prepositions, whereas non-D-linked ones generally cannot. Following Van Craenenbroeck (2012), I argue that D-linked wh-remnants are derived differently from non-D-linked ones, resulting in the distinct behavior with respect to Ps.

Key words: preposition stranding, sluicing, discourse-linking, wh-remnants, Serbo-Croatian

1. Introduction

Ever since Merchant’s (2001) generalization in (1), P-stranding under sluicing has received much attention in the literature.

1) A language L will allow preposition stranding under sluicing iff L allows preposition stranding under regular wh-movement (Merchant, 2001: 92).

P-stranding occurs when prepositions do not move with their wh-complements, but remain stranded in their base positions. Sluicing is a form of ellipsis where the wh-question gets reduced to the wh-phrase alone and the elided part gets reconstructed from the discourse. SC does not allow P-stranding in either regular wh-movement (2b) or sluicing (2c) (Merchant, 2001: 97).

1.

a) Sa kim je Ana govorila?
with whom is Ana spoken
‘Who did Ana speak with?’

b) *Kim je govorila Ana sa?
whom is spoken Ana with

1. *Kim je govorila Ana sa
whom is spoken Ana with

In a more recent paper, Stjepanović (2008) shows that P-stranding under sluicing in SC is possible even though it cannot happen under regular wh-movement. This deviation from the general tendency does not necessarily represent a problem for (1). In this paper I show in which instances of sluicing P-stranding can occur and I offer a syntactic account for such behavior. The paper is organized as follows: In section 2 I give a brief overview of Stjepanović (2008). In section 3 I show that P-stranding

in SC sluices largely depends on the nature of the wh-word that licenses ellipsis. Van Craenenbroeck’s (2012) analysis of sluicing is presented in section 4. Section 5 is devoted to connecting SC data to the analysis proposed by Van Craenenbroeck (2012). The discussion and concluding remarks are presented in sections 6 and 7, respectively.

2. Stjepanović (2008) on P-stranding under sluicing in SC

Stjepanović shows that SC allows P-stranding under sluicing, arguing that no conclusions can be drawn from Merchant’s data in (2), because the instrumental animate wh-phrase *kim ‘whom’ always has to appear with the preposition *sa ‘with’ (2008: 180).

3) Marko se ponosi Marijom/ nekom devojkom/ nečim.
   Marko REFLECTIVE takes.pride Marija INSTR some girl INST something
   ‘Marko is proud of Maria/ some girl/ something.’

4) *(Sa) kim se Marko ponosi?
   with whom REFLEXIVE Marko takes.pride
   “Who is Marko proud of?”

5) *(?*Sa) kojom devojkom/ *(?*Sa) čim se Marko ponosi?
   with which girl/ with what REFLEXIVE Marko takes.pride
   ‘Which girl/ What is Marko proud of?’

The verb *ponositi se ‘to take pride in’ takes an instrumental object without the preposition *sa ‘with’. Based on (4) – (5), Stjepanović argues that *kim ‘whom’ has to appear with the preposition *sa even though the selectional properties of the verb do not require it, whereas phrases like čim/kojom devojkom do not. Hence, no conclusions about P-stranding should be made based on *kim, because it always has to appear with the preposition *sa.

Stjepanović’s (2008) proposal to disregard *kim when drawing conclusions about P-stranding faces some problems: it does not acknowledge that nouns in instrumental in SC have two meanings - those of instruments (i.e. tools, objects) and company. Crucially the only way to distinguish between the two is by the presence of prepositions. When preceded by a preposition, nouns in instrumental have the meaning of company, whereas bare they denote instruments. In other words (4) and (5) are perfectly well-formed, both with and without the preposition. With the preposition, in (4) the speaker is inquiring about a person together with whom Marko is proud of someone else. The wh-word is thus realized as adjunct and not as the second argument of the verb. Similarly, in (5), the reading with the preposition would be the one of company: together with which girl/ what did Marko take pride in someone else. Conversely, when the preposition is omitted, the interpretation is the one where the inquiry is made about the object of Marko’s pride.

A way to check whether *kim indeed can strand Ps is to consider examples with different verbs. The problem with (3) – (5) is that the verb *ponositi se can very easily have both instrumental and company interpretations. On the other hand, for verbs like *govoriti/ razgovarati ‘talk/speak’ it is much harderto obtain the instrument, or in this case the “medium” reading.

6) Ana je razgovarala sa nekim, ali ne znam *(sa) kim.
   Ana is spoken with someone INST but not I.know with who INST
   ‘Ana spoke with someone, but I don’t know who.’
The version of (6) in which the preposition is dropped is judged as acceptable by some native speakers of SC under the reading that Ana spoke with someone. Hence, P-drop does not influence the target reading, as it does in (4) and (5). Sentence (6) cannot have the instrument interpretation for purely semantic reasons: without rich contextual information, it is hard to imagine Ana speaking using someone as the instrument/medium of her speaking. Additionally, the verb *razgovarati* is a transitive verb and requires a second argument which, in this case, can only be ‘who’. Thus, interpreting ‘who’ as an adjunct here would leave the theta requirement unsatisfied, as the second argument would not be realized. If the instrument reading is the intended one, the construction ‘spoke through someone’ has a different form in SC and does not involve the preposition *sa* ‘with’, but *kroz* ‘through’. In that case the wh-word is genitive and the parallelism is lost. Consequently, Stjepanović’s (2008) suggestion that *kim* should not be taken into account when drawing conclusions about P-stranding does not hold.

In trying to account for the phenomenon at hand, based on the examples of sluicing with two coordinated PPs, Stjepanović shows that P-drop in sluiced constructions is not the result of P-stranding. Consider the example in (7) from Stjepanović (2008: 183).

7) Petar je sakrio igračku ispod jedne stolice i pored jednog zida, ali ne znam (ispod) koje stolice i (pored) kojeg zida.

‘Petar hid the toy under a chair and beside a wall, but I don’t know which chair and which wall.’

In coordinated PPs, the remnant in the target clause (*koje stolice i kojeg zida*) resembles the two coordinated wh-NPs that correspond to the P-complements in the antecedent clause (*ispod jedne stolice i pored jednog zida*). No current theory of movement allows the coordinated remnant phrase to move as a constituent while stranding the two Ps. Hence, (7) is unlikely to be the result of stranding. Stjepanović next rejects a base-generation approach (see Chung, Ladusaw and McCloskey (1995) and Lobeck (1995)) and a pseudo-sluicing account for SC sluices.

As the coordinated wh-remnant is not a base-generated fragment and it does not involve pseudo sluicing, Stjepanović concludes that it must be a remnant of regular sluicing. She further suggests that given that their correlates are coordinated PPs, it is expected that the remnants too are coordinated PPs, whose Ps are lost in the course of the derivation. As illustrated, the lost Ps in coordinated PPs cannot be the result of stranding; therefore it is not unnatural to assume that P-loss is not the result of stranding in non-coordinated structures, either. Stjepanović concludes that in SC, P-loss under sluicing is a postsyntactic phenomenon which most likely occurs at PF. How exactly this loss of Ps occurs, Stjepanović leaves open.

In this section I have discussed the conclusions reached by Stjepanović (2008). I have shown that *kim* should not be excluded from the set of wh-words that appear without prepositions and I have suggested that the semantics of the verb has to be taken into account when comparing constructions which obligatorily require prepositions, and those in which they are optional. In the next section, I illustrate that the nature of the wh-word plays a crucial role in the acceptability of P-less sluices and I show that case has an effect on the grammaticality of sentences with P-less remnants.
Characteristics of the remnant wh-word seem to be essential for the (non)optionality of P-drop: D-linked wh-phrases seem to allow P-drop as opposed to their non-D-linked counterparts.

8)  
  a) Ana je pričala o nekome, ali ne znam *(o) kome.  
     Ana is spoke about someone but not I.know about who
     ‘Ana spoke about someone, but I don’t know who.’
  b) Ana je pričala o nekom drugu, ali ne znam (o) kojem (drugu).  
     Ana is spoke about some friend but not I.know about which friend
     ‘Ana spoke about a friend, but I don’t know which.’

For the notion of D-linking I adopt Pesetsky’s (1987) concept under which a wh-word has the ability to refer to an entity from a set of presupposed entities shared by the interlocutors either as part of the shared background knowledge, or by being previously established in the discourse. Note that the D-linked wh-phrase in (8b) 
   kojem drugu can occur without the preposition, but the non-D-linked wh-phrase kome cannot.

At this point it is important to mention that (8a) can be grammatical under a different reading. SC has a very rich inflectional morphology and the forms of nouns differ to a large extent depending on the morphological case they bear. However, certain nouns display case syncretism. Specifically, the wh-word kome ‘who’ in (8a) has the same form in locative and dative, locative being signaled by the preposition. The difference in meaning is significant. Dative denotes direction or aim of the development, whereas locative implies either location at which something takes place, or object of discussion. Thus, without the preposition, (8a) would mean that Ana spoke about X, but it is unknown to whom Anna spoke about X. the presence of the preposition signals dative and the interpretation is that of goal or destination of some sort towards which Ana is directing her speech. In that case, the parallelism with the antecedent clause is lost. On the other hand, locative reading, under which kome is the object of Ana’s speech is hard to arrive at. Interestingly enough, with the D-linked phrase in (8b) even when there is no preposition in the remnant, locative reading can be accessed quite easily. The same holds for (3) – (5) with instrumental wh-remnants, adapted here to showcase the results of D-linking.

9)  
  a) Mia se igra sa nekim, ali ne znam *(sa) kim.  
     Mia refl play with someone but not I.know with who
     ‘Mia is playing with someone, but I don’t know who.’
  b) Mia se igra sa nekom drugariicom, ali ne znam (s) kojom (drugariicom).  
     Mia refl play with some friend but not I.know with which friend
     ‘Mia is playing with a friend, but I don’t know which.’

Similarly to (8), the sentences in (9) behave differently with respect to P-drop. Whereas (8b) remains grammatical after the P-drop, (8a) does not (under the reading that the identity of the person who is Mia’s companion in play is in question). Recall that in SC instrumental has two meanings – company (with P), and instrument (without P). Consequently, (9a) is grammatical under the reading in which nekim and kim are not coindexed. In that case, the interpretation of the sentence would be that Mia and someone else are playing with the third person who is the object of their play. In (9b),
even though the preposition is dropped in the sluice, the reading of “company” is still preserved.

In this section, I have illustrated the difference in the behavior of wh-remnants with respect to D-linking and I have shown that D-linked phrases allow P-drop whereas non-D-linked ones generally do not. Following Van Craenenbroeck (2012), in the next sections I propose an analysis which accounts for this behavior.

4. Derivation of sluices

In this section I discuss Van Craenenbroeck’s (2012) approach to wh-movement, with emphasis on the distinct behavior of simple and complex wh-phrases. In section 5 I then connect it to data from SC and show how under this analysis the difference in P-drop of D-linked and non-D-linked phrases can be accounted for.

Van Craenenbroeck (2012) adopts Rizzi’s (1987) split CP hypothesis suggesting that simple wh-phrases (e.g. what) and complex wh-phrases (e.g. which friend) go through a different path in order to reach the left periphery. Simple wh-phrases move from their TP internal base-positions. Complex wh-phrases are base-generated in the left periphery. This difference in the derivation will prove to be crucial for the (non) optionality of P-drop in SC sluices. Before proceeding to the analysis of sluicing, some general properties of each of the CP layers are discussed.

The topmost CP layer (CP1) is responsible for checking the clause type features. The lower CP layer, (CP2) checks the operator feature.

A wh-phrase (being an operator) binds the copy that is related to its canonical position within the TP. Hence, simple wh-phrases move from their TP internal position first to SpecCP2 to check the operator feature, and only then to SpecCP1 to check the clause-type feature. Conversely, complex wh-phrases are base-generated in SpecCP1, thus checking the clause-type feature in situ, while an empty operator moves from the TP internal position to SpecCP2 to check the operator feature. What follows from these derivational differences is that simple wh-phrases are operators, while complex ones are not.

Van Craenenbroeck (2012) offers criteria for distinguishing between simple and complex wh-phrases. Complexity is achieved via presence of a nominal restriction of
some sort: a wh-phrase such as which cupcake is complex as there is a noun following the wh-word which restricts the possible choice of extralinguistic entities that it can refer to. An adverb like why is the complete opposite in terms of complexity as the choice of available referents is unrestricted. For example, in a sentence like She didn’t show up for class today, but I don’t know why, the adverb why can refer to a variety of things, or more specifically causes, e.g. she got sick; she overslept; etc. Who and what have an intermediate status as they can either be treated as simple or as complex if an implicit restriction is assumed (e.g. a “person” restrictor in the case of who and “thing” in the case of what). By virtue of having nominal restriction, complex wh-phrases denote a set and are thus allowed to be interpreted in situ. As this in situ strategy is more economical than movement, complex wh-phrases must be interpreted as non-operators. Simple wh-phrases do not denote sets and must be interpreted as operators, consequently moving to the position in which they can check their operator feature.

It should be pointed out that Van Craenenbroeck assumes the full structure analysis: there is a full syntactic structure in the gap which is not pronounced due to the [+E] feature which signals to PF that everything c-commanded by it should not be vocalized (Merchant, 2001). In order to incorporate Merchant’s approach into the present analysis, it is vital to examine the syntactic licensing requirements on [E]. Merchant assumes that [E] feature is there to trigger ellipsis of the complement of the head on which it resides. [E] is linked to both operator and clause-type features in the case of sluicing and it triggers non-pronunciation of the complement of the head that carries it. Both operator and clause-type features are uninterpretable and strong, requiring a local relationship with the element that carries the matching interpretable features. Having established the essentials regarding the simple/complex phrase distinction and licensing requirements on [E], the burden is now on explaining the derivational differences of sluices with simple and complex wh-phrases.

Recall that complex wh-phrases are not syntactic operators and can be interpreted in situ which is why they are base-generated in the left periphery. Consider the derivation of a complex wh-phrase, adapted from Van Craenenbroeck (2012: 10).

10)
Once the TP is fully built, C2 carrying [E]-feature gets merged on top of it. C2 has an operator feature and [E] is endowed with strong uninterpretable operator and clause-type features. At this point, an empty operator moves from its TP internal base-position to SpecCP2, checking the operator feature linked to [E]. [E] is not yet fully licensed, as it is still linked to an uninterpretable clause-type feature. As the uninterpretable clause-type feature on [E] is strong, [E] has to move to C1 in order to check the remaining feature locally against the matching interpretable feature on its head. Eventually, the complex wh-phrase gets merged in SpecCP1 and completes the derivation. Once the structure is complete it is sent to PF and LF. PF detects [E] and interprets it as a non-pronunciation instruction given by the syntax. Since [E] resides in C1, CP2 and everything beneath it is deleted.

Consider next the derivation of sluices with simple wh-phrase remnants. Simple wh--phrases do function as syntactic operators and are not base-generated in the left periphery but undergo movement.

10) **Figure 3: Derivation of a simple wh-phrase**

The first step is merging the C2 on top of the TP. The C2 head is specified with an operator feature and an [E] feature with [uQ*] and [uOp*]. Next, the wh-word, specified with both clause-type and operator features, moves from within the TP to SpecCP2. As the wh-phrase in SpecCP2 enters a specifier-head relationship with [E], it values the uninterpretable features on it. At this point [E] is fully licensed and does not have a reason to move to CP1. Subsequently, the wh-phrase moves to SpecCP1 to check the clause-type feature on C1 and the derivation is complete. [E] is in C2, triggering the PF deletion of the TP.

In summary, complex wh-phrases are not syntactic operators; they are base-
generated in SpecCP1 and an empty operator moves from within the TP to check the operator feature on CP2. Conversely, simple wh-phrases are syntactic operators, and they move first to SpecCP2 and only then to SpecCP1.

5. Making sense of data

Recall from section 3 that D-linked remnants of sluices can appear P-less, whereas non-D-linked ones generally cannot. Remember also that the difference between a D-linked and a non-D-linked phrase is that only the former has a restricted set of possible referents. Thus, the parallelism between Van Craenenbroeck’s (2012) simple and complex wh-phrases and non-D-linked and D-linked phrases follows naturally. Consider the derivation of sluices in (8), repeated here as (12).

11) a) Ana je pričala o nekome, ali ne znam *(o) kome.
   Ana is spoke about someone but not I know about who
   ‘Ana spoke about someone, but I don’t know who.’

   b) Ana je pričala o nekom drugu, ali ne znam (o) kojem (drugu).
   Ana is spoke about some friend but not I know about which friend
   ‘Ana spoke about a friend, but I don’t know which.’

In (12a), a non-D-linked wh-phrase is a remnant of a sluice which necessarily has to appear with the preposition. Since simple wh-phrases move from within the TP, and as P-stranding is not possible in SC, the preposition has to be pied-piped. Conversely, in (12b) the remnant can optionally drop the preposition and yet the sentence remains grammatical under the intended reading. The reason for this is that D-linked wh-phrases are base-generated in SpecCP1 as they are necessarily complex. They can be merged either bare or as full PPs. Crucially, they do not move from within the TP, thus P-stranding is not involved. As a result, complex wh-phrases can appear both with and without prepositions.

6. Discussion

A peculiar behavior of simple wh-phrases in accusative presents a challenge for this approach. In some instances native speakers accept sentences with P-less simple wh-remnants in accusative.

12) Ana je ponosna na nekoga, ali ne znam *(na) koga.
   Ana is proud of someone but not I know (of) who
   ‘Ana is proud of someone, but I don’t know who.’

Although (13) does not sound completely natural, it is nevertheless acceptable. The question is why this is the case, and how this loss of P can be accounted for. There are at least three ways to go about this question.

First, it can be stipulated that in cases like (13), the wh-phrase originates in the left periphery. Recall that Van Craenenbroeck (2012) claims that due to the fact that they occupy some middle spots in the complexity scale, who and what can be treated

This approach closely resembles the base-generated approach which Stjepanović (2008) rejects. However, a crucial difference between the two approaches is that Van Craenenbroeck’s (2012) assumes full syntactic structure in the gap, whereas the one that Stjepanović considers involves a null TP which gets the interpretation at LF by copying the antecedent TP. Under the full structure approach, the problems that Stjepanović points out are overcome.
either as bare nouns, or as having some implicit nominal restrictions. Provided that
koga ‘who’ in (13) has some implicit person restriction (e.g. members of Ana’s family
are salient in the discourse, hence the possible choice of referents for who could be
implicitly restricted to one of the members), it can be postulated that it is indeed base-
generated in SpecCP2. Although this solution seems quite elegant, it nonetheless
creates a different problem: if this implicit restriction can be assumed in (13), following
the same logic, why cannot it be assumed in cases with, for example, locative. In spite
of the ability to explain (13), the “implicit restriction” analysis cannot account for the
different behavior of simple wh-phrases in cases other than accusative, which generally
do not allow P-drop. Hence, a more refined explanation of this phenomenon is needed.

Another way to go about this is to employ Sato’s (2011) approach for Indonesian.
Sato’s proposal assumes two things: (i) percolation of the [+wh] feature onto PP and
(ii) repair by ellipsis. In short, Sato claims that feature percolation is obligatory in
Indonesian, but in some instances the feature fails to percolate, which results in the
ungrammatical structure as the P gets stranded. Some constraint at PF detects this
and ellipsis happens as a Last Resort in order to save the derivation. The reason why
more material than the offending part itself is deleted is captured under Merchant’s
(2008) MaxEllide which in simple terms states that ellipsis should target the largest
possible constituent which contains the wh-trace. Similarly, it could be speculated that
in constructions like (13), the preposition indeed gets stranded, which PF observes as
ill-formed and ellipsis applies as the Last Resort to save the derivation.

Alternatively, a semantic account to this phenomenon could be offered. For locative
and instrumental wh-words P cannot be dropped because the meanings of the sentence
with and without it differ greatly. Recall that locative and dative are syncretic and
the only thing signaling the difference between the two is the preposition. The reason
why locatives cannot P-drop is because the semantics of the whole sentence would
change and the parallelism between the target and the antecedent clause would be lost.
Similar holds for instrumental which has two functions: instrument (without P) and
company (with P). Since accusative is not syncretic with any other case, even without
the preposition, a different reading cannot be obtained. That semantics indeed plays a
crucial role is supported by the example in (6), repeated here as (14).

13) Ana je razgovarala sa nekim, ali ne znam ??(sa) kim.
Ana is spoken with someone但是 not I know with who
‘Ana spoke with someone, but I don’t know who.’

Apparently, the semantics of the verb razgovarati makes it difficult to interpret the
wh-word in the remnant as the instrument of Ana’s speaking. Therefore, even though
the preposition is dropped, the interpretation of company can still be obtained. What
this suggests is that the optionality of P-drop with certain simple wh-remnants is not
the property of a particular preposition, nor the case of the wh-word. Instead, it seems

---

2Indonesian does not allow P-stranding under regular wh-movement, yet it makes it optional under sluicing.
3Feature percolation is similar to Grimshaw’s (2000) extended projection. N, D and P are considered to be of
the same syntactic category as they have the same categorial features. Hence, N is the head of NP, DP and
PP. N, together with the functional projections that form a shell around it represents one extended projection.
In other words, N projects onto the DP and PP which are transparent. Therefore, the [+wh] feature from N
projects onto PP.
4A concern was expressed by the reviewer regarding the nature of the relationship between syntax and
semantics and the fact that under the analysis developed here syntax seems to be sensitive to the semantic
properties of certain verbs. Although I do not explore the interface between these two linguistic levels in this
paper, I do, however, acknowledge that in order to understand these constructions better, it is precisely the
syntax-semantics interface that should be looked into further.
like in those cases, semantic restrictions of the verb impose this (non)optionality, i.e. whether the verb allows for different interpretations. Consider (15) and (16) as supporting evidence that this peculiarity lies at the syntax-semantics interface.

14) Ana je razgovarala sa nekim. U ovom trenutku nisam sigurna **(sa) kim. Ana is spoken with someone\textsuperscript{inst}. At this moment not I\textsuperscript{inst} sure with who

‘Ana spoke with someone. At this moment I’m not sure who’

15) Ana je ponosna na nekoga. U ovom trenutku nisam sigurna **(na) koga. Ana is proud of someone\textsuperscript{acc}. At this moment not I\textsuperscript{acc} sure of who

‘Ana is proud of someone. At this moment I’m not sure who.’

(15) is synonymous to (14), and (16) to (13), except that there is a difference in the amount of material separating the remnant from the antecedent clause. (15) and (16) suggest that the further away the remnant is from the antecedent clause, the need for the preposition increases. This suggests that having too much material separating the remnant and the antecedent makes it harder to establish the reference. This in turn supports the idea that it is syntax-semantics interface that has to be further looked into.

7. Conclusion

In conclusion, I have shown that P-drop in SC sluices depends greatly on the nature of the wh-word. Complex D-linked wh-remnants allow P-drop and simple non-D-linked ones generally do not. Since they are base-generated in the left periphery, complex wh-phrases optionally appear without prepositions. By virtue of the fact that they do not undergo regular wh-movement, these phrases do not involve P-stranding. Simple wh-phrases move from their TP internal base positions and have to pied-pipe the preposition. However, in some instances even simple wh-remnants can appear P-less. This ability is, as I have shown, tightly related to semantics and the ability of the verb to have multiple interpretations. The exact syntactic account for this phenomenon I leave for future research.

References


Anja Šarić

IZOSTAVLJANJE PREDLOGA U POSEBNIM OBLICIMA ELIPSE U SRPSKOHRVATSKOM

Rezime

U radu se predlaže analiza izostavljanja predloga u posebnim oblicima elipse u srpskohrvatskom jeziku. Srpshohrvatski ne dozvoljava izostavljanje predloga u upitnim rečenicama, ali ga opcionalno dopušta u nekim oblicima elipse. U radu su dati primjeri i predložena je analiza ovakvih konstrukcija. Diskursno povezani zaostaci upitnih reči se opcionalno mogu javiti bez predloga, dok oni diskurno nepovezani ne mogu. Predlaže se da se kod ove vrste elipse diskurno povezani i nepovezani elementi izvode različito što rezultira posebnim ponašanjem u pogledu mogućnosti izostavljanja predloga. 

Ključne reči: izostavljanje predloga, elipsa, diskursna povezanost, srpskohrvatski jezik