The unbearable lightness of clitics

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CHAPTER 3

Second position clitics in Serbo-Croatian

In this chapter, I examine second position cliticisation in Serbo-Croatian and address the challenging question of the timing of clitic placement, which has been a subject of much debate in the literature on the topic. Up to this point there is no consensus on whether it is an instance of syntactic movement or postsyntactic prosodic alignment.

I use VP-ellipsis as a diagnostic for the timing of clitic placement. Assuming that pronominal clitics originate inside VP and there is syntactic structure inside the ellipsis site, there are two hypothetical options with respect to the interaction of clitic placement to the second position and ellipsis:

(a) clitic placement precedes VP ellipsis

(b) VP ellipsis precedes clitic placement

If the first option is true, it is expected that clitic placement cannot be affected by ellipsis in any way. However, if the second option is true, the clitics originating within VP are supposed to be trapped inside the ellipsis site. In this chapter, I show that the second option is correct and account for this pattern by making a case for the claim that clitic placement into the second position in Serbo-Croatian is postsyntactic in its nature.

3.1 The second position and the clitic cluster in Serbo-Croatian

Serbo-Croatian (SC) is an articleless pro-drop language with a quite free word order (the unmarked word order being SVO). It uses an auxiliary verb and a participle in the past and future tense, which have strong and clitic forms, as do object pronouns. A clitic form is used in unmarked environments (in the absence of focus or contrast) and have to appear in the second position in a sentence.

This section introduces the basic facts about second position (2P) clitics in Serbo-Croatian, such as the order of clitics within a cluster, the relationship between clitics and their strong counterparts, the positioning of a clitic cluster and two types of second position in SC. In particular, the following properties of SC clitics are discussed:

- the clitics are strictly ordered within a cluster, with the exceptional 3SG auxiliary clitic appearing at the end of the cluster;
- 2P clitics have corresponding strong forms which are obligatorily used in certain environments;
- the clitics cluster appears either after the first word or the second constituent of a sentence;
- the clitic cluster can appear further to the right if the initial constituent of a sentence is phonologically heavy.

As mentioned in chapter 2, Serbo-Croatian is one of the languages that exhibit second position cliticisation, with some clitics (including pronouns and auxiliaries) appearing strictly in the second position of a sentence, as illustrated in (1) for the pronominal clitic *mu* and the auxiliary clitic *je* (2P clitics are italicised throughout the dissertation), which appear as a cluster after the first word of a sentence. Placing the clitics into any other position would make the sentence ungrammatical, see (1b,1c).[1] Note that the second position itself can be defined differently in different languages and even occasionally in one language (an example being Serbo-Croatian), as discussed below.

(1) a. Nedavno *mu* *je* neko u snu pevao
recently him.DAT AUX.3SG someone in dream sung
jednu pesmu.
one song
'Recently someone in one of his dreams sang him a song.'

[1] The original sentence is taken from "Hazarski rečnik" by Milorad Pavić, the judgements are given by my informants.

b. * Nedavno neko u snu *mu* *je* pevao
recently someone in dream him.DAT AUX.3SG sung
jednu pesmu.
one song

c. * Nedavno neko u snu *je* pevao *mu*
recently someone in dream AUX.3SG sung him.DAT
jednu pesmu.
one song

A clitic cluster in Serbo-Croatian can consist of several 2P clitics, which are strictly ordered with respect to each other, as schematised in (2). A clitic cluster starts with a question particle *li*, if present, followed by auxiliaries (except for the 3 person singular auxiliary *je*), followed by pronominal clitics in dative, accusative, and genitive, followed by a reflexive clitic, and ends with the exceptional 3SG auxiliary clitic *je*.

(2) Q < AUX (except 3SG) < DAT < ACC < GEN < REFL < AUX.3SG

The ordering of clitics within a cluster is illustrated in (3). Note that in (3a) the auxiliary precedes the pronominal clitics, while in (3b) the exceptional 3SG auxiliary follows them.

(3) Franks (2010:6)

a. Da *li* *ste* *mi* *ih* danas kupili?
C Q AUX.2PL me.DAT them.ACC today bought
'Did you buy me them today?'

b. Da *li* *mi* *ih* *je* danas kupio?
C Q me.DAT them.ACC AUX.3SG today bought
'Did he buy me them today?'

In this dissertation, I do not discuss the ordering within a clitic cluster and the mechanisms responsible for it. Furthermore, in my examples, I mostly use the auxiliary clitics which is used to form the past tense and the pronominal clitics in dative and accusative. In SC, these clitics have corresponding strong forms, which do not have to appear in the second position. The full forms are obligatorily used in the following contexts, according to Radanović-Kocić (1988):

(a) when focused

(b) when contrasted

(c) in sentence-initial position

(d) after prepositions

(e) when conjoined

The examples in (4) illustrate one of the cases when clitic pronouns are banned: it is not possible to use the clitic forms of pronouns in the second position as the pronouns are contrasted; instead, the strong forms must be used (the non-clitic forms of pronouns are not italicised).

(4) Radanović-Kocić (1988:44-45)

a. Kupi čokoladu njoj, ne njemu.
buy chocolate her.DAT not him.DAT
'Buy chocolate for her, not for him.'

b. * Kupi *joj* ne *mu* čokoladu.
buy her.DAT not him.DAT chocolate

The following tables contain the paradigms for the second position clitics and their strong counterparts most often used in this dissertation: the past tense auxiliary (Table 3.1) and the accusative (Table 3.2) and the dative (Table 3.3) forms of pronouns.

	SG		**PL**	
	clitic	**strong**	**clitic**	**strong**
1	*sam*	jèsam	*smo*	jèsmo
2	*si*	jèsi	*ste*	jèste
3	*je*	jest(e) / je	*su*	jèsu

Table 3.1: *The paradigm of the past tense auxiliary in SC*

	SG		**PL**	
	clitic	**strong**	**clitic**	**strong**
1	*me*	mene	*nas*	nas
2	*te*	tebe	*vas*	vas
3	*ga* (nj) / *je* (ju)	njega / nju	*ih*	njih

Table 3.2: *The paradigm of the accusative pronouns in SC*

	SG		PL	
	clitic	**strong**	**clitic**	**strong**
1	*mi*	meni	*nam*	nama
2	*ti*	tebi	*vam*	vama
3	*mu* / *joj*	njemu / njoj	*im*	njima

Table 3.3: *The paradigm of the dative pronouns in SC*

With respect to the positioning of a clitic cluster, SC exhibits two interesting properties. First, it seems that there are two kinds of second positions in SC: one after the first word and one after the first syntactic constituent. Consider the examples in (5): in both cases, the 2P clitic appears in the second position, however, in different places: after the first word in (5a) and after the first constituent in (5b).

(5) Halpern (1995:16)

a. Taj *je* čovjek svirao klavir.
that AUX.3SG man played piano
'That man played the piano.'

b. [Taj čovjek] *je* svirao klavir.
that man AUX.3SG played piano

The second property, which has been called delayed clitic placement, or clitic third, appears to reflect the sensitivity of the 2P clitics in SC to the prosodic environment. When an initial constituent of a sentence is phonologically heavy enough to form an Intonational Phrase (ι) of its own and thus be prosodically separated from the rest of the clause, the clitics are placed further to the right than expected (in the third rather than in the second position), as discussed in Radanović-Kocić (1988), Bošković (2001). Thus, the domain of defining the second position in SC is an ι (which is not the case, for example, in Slovenian, as discussed in Chapter 4). The environments that cause delayed clitic placement are phonologically heavy fronted (A'-moved) constituents, parentheticals, and appositives. As (6) shows, the default position of the 2P clitics in a subject-initial sentence would be directly following the subject, as in (6a). However, in (6b), an appositive triggers delayed clitic placement, forcing the clitic to appear in the third position, after the verb, and making it impossible to place the clitics after the subject with an appositive, as in (6c). This pattern directly follows from the prosodic properties of 2P clitics in SC: they are obligatorily enclitics, hence they cannot follow a pause (under the assumption that the environments listed above are separated by pauses from the rest of the utterance).

(6) Radanović-Kocić (1996:437)

a. Ja *sam ti* obećala igračku.
I AUX you promised toy
'I promised you a toy.'

b. Ja, tvoja mama, obećala *sam ti* igračku.
I your mother promised AUX you toy
'I, your mother, promised you a toy.'

c. * Ja, tvoja mama, *sam ti* obećala igračku.
'I your mother AUX you promised toy.'

Regardless of how many intonationally separated constituents there are in an utterance, the clitics will always appear in the second position of the ι where they originate, as (7) demonstrates (intonational breaks are marked by #): the 3SG auxiliary clitic *je* does not "climb out" of its ι (the assumption here is that every one of the fronted constituents inside the embedded clause are parsed as separate ιs).

(7) Franks (2010:44)
Javili *su* nam da # prije nekoliko dana # na toj
announced AUX.3PL us.DAT C ago several days on that
liniji # voz *je* kasnio tri sata.
line train AUX.3SG was-late three hours
'They announced that, several days ago, on that line, the train was 3 hours late.'

These peculiarities of 2P clitic placement in SC as well as attempts at accounting for them have given rise to a number of approaches to second position cliticisation, briefly introduced in the next section.

3.2 Previous approaches to 2P cliticisation

2P clitics in SC has received quite meticulous attention in the previous literature; however, a consensus on how this phenomenon should be analysed has not been reached so far. In order to account for the phenomenon of the second position cliticisation, two main questions have to be answered:

(a) How is the second position defined?

i. Is it a syntactic or phonological notion?

ii. What counts as the first position (a word or a phrase)?

(b) How do clitics come to occur in the second position?

i. Are they based generated there or do they move there?

ii. If they move, what type of movement do they undergo and when exactly during the derivation does it take place?

It will not be an overstatement to say that all imaginable answers have been given to these questions in the literature. The current section provides a quick summary of the previous accounts of 2P cliticisation in SC and the arguments for the syntactic or prosodic nature of the phenomenon that are relevant for further discussion.

3.2.1 Previous approaches: syntax or phonology?

The most detailed overview of the existing approaches to 2P cliticisation (in SC and other languages) is given in Bošković (2001). According to him, there are 4 types of approaches, which I summarise in Table 3.4. The approaches differ with respect to what they treat as the second position (a position after the first syntactic or phonological unit) and to when clitics are assumed to be placed there (in syntax or postsyntactically).

<table>
<tr><td colspan="2" rowspan="2"></td><td colspan="2">the second position</td></tr>
<tr><td>syntactic</td><td>phonological</td></tr>
<tr><td rowspan="3">positioning</td><td rowspan="2">syntactic</td><td>the strong syntax approach</td><td rowspan="2">the weak phonology approach</td></tr>
<tr><td>the weak syntax approach[1]</td></tr>
<tr><td>phonological</td><td></td><td>the strong phonology approach</td></tr>
</table>

[1] The weak syntax approach allows some postsyntactic reordering, see below. There are no approaches that assume that the second position is defined syntactically but clitics are placed there in PF (without undergoing any syntactic movement before).

Table 3.4: *Types of approaches to 2P cliticisation in SC (based on Bošković 2001)*

As can be seen from the table, most approaches assume that clitics are placed into the second position in syntax. Two of the approaches also

suggest that the second position itself is a syntactic notion, which implies that there is a particular syntactic position (e.g. C^0 or I^0) that attracts all the 2P clitics or where clitics are based-generated. These are *the strong syntax approach* (Progovac 1996, 2000, Wilder & Ćavar 1994a) and *the weak syntax approach* (Halpern 1995, Zec & Inkelas 1990, Zec 2005, Diesing & Zec 2017). The difference between the two is mostly in the way they explain the possibility for clitics to appear after the first word of a sentence, seemingly breaking a syntactic constituent. *The weak syntax approach* allows some postsyntactic reordering in this case, *Prosodic Inversion*.

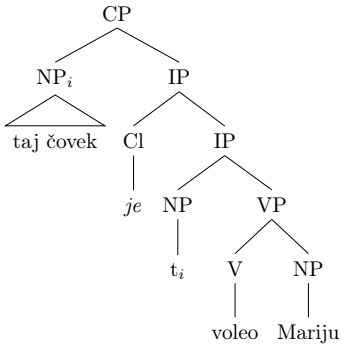
Recall that in SC, 2P clitics can either follow the first syntactic constituent or break it up, appearing after its first element, as in (5), repeated here as (8). Following Halpern (1995), I refer to the first option as 2D (for the "second daughter") and to the second option as 2W (for the "second word").

(8) a. Taj čovek *je* voleo Mariju. (2D)
that man AUX.3SG loved Marija
'That man loved Marija.'

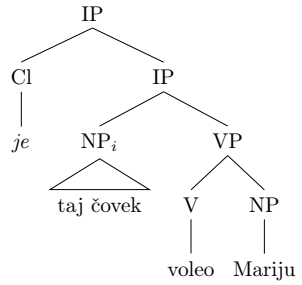
b. Taj *je* čovek voleo Mariju. (2W)

Under Halpern's approach, 2P clitics are always adjoined to IP. According to him, 2D environments involve fronting of the initial constituent to a higher position, as shown in (9): the subject NP moved from its original position in Spec,IP to Spec,CP. In 2W environments, no constituent is fronted, and clitics remain the highest elements of the clause in the output of the syntax, as shown in (10).

(9) 2D:



(10) 2W:



However, SC does not allow clitics in the sentence-initial position. Halpern (1995) suggests that when clitics lack phonological support to their left,

they can "trade places" with the following word by means of Prosodic Inversion, as illustrated in (11). If a 2P clitic is in the initial position in the output of syntax, it "skips" to the second position, deriving the 2W clitic placement.[2]

(11) Halpern (1995:19)

a. Output of syntax:

Je taj čovek voleo Mariju.
AUX.3SG that man loved Marija
'That man loved Marija.'

b. Prosodic Inversion:

Taj *je* čovek voleo Mariju.
that AUX.3SG man loved Marija

The strong syntax approach, however, does not allow any postsyntactic reordering of clitics and claims that clitic placement is a syntactic phenomenon which is regulated by standard rules of narrow syntax. In the works of Progovac (1996), Franks & Progovac (1994) it is proposed that 2P clitics in SC undergo syntactic movement to C^0, and the unit that precedes the clitics is always a constituent that can be shown to be able to undergo movement independently, even in cases of 2W placement. For example, the clitic in (12a) can split the first constituent; importantly, the element hosting the clitic, *u veliku*, can be shown to undergo movement independently of the rest of the PP even in the absence of clitics, as in (12b).

(12) Franks & Progovac (1994)

a. U veliku *je* sobu Jovan ušao.
into big AUX.3SG room Jovan walked
'Into the big room walked Jovan.'

b. U veliku ulazi sobu Jovan.
into big walks room Jovan
'Into the big room walks Jovan.'

Therefore the claim is that there is nothing special about the ability of 2P clitics to separate constituents. As Franks & Progovac argue, 2W cases like the one in (12a) the element preceding the clitics in fact undergoes phrasal movement to Spec,CP and therefore there is no need in postulating a separate operation of Prosodic Inversion.

[2]Prosodic Inversion thus can be analysed as a way to repair the STRONG START violation, similar to the displacement of Irish weak pronouns, discussed in chapter 2.

To sum up, the difference between the weak and strong syntax approaches is that the former allows phonological reordering as a repair mechanism for a phonological violation, whereas in the latter this violation never arises in the first place.

The two 'phonological' approaches are more different from each other than the 'syntactic' ones among each other. *The weak phonology approach* (Bošković 1995, 2000, 2001, 2009b, Stjepanović 1997, 1998, 1999, Franks 1997) is similar to the strong syntax approach with respect to its view on clitic placement: it is still assumed to be a strictly syntactic operation with no reordering involved at PF. The difference is in how the two types of approaches treat the second position itself: under the weak phonology approach, the second position is a phonological notion and is defined in phonological terms, as a second position within an Intonational Phrase. However, phonology does not play a role in clitic placement per se: it just filters out sentences that violate the 2P requirement, i.e. those where clitics are not located in the second position of an ι. Under the weak phonology approach, 2P clitics undergo movement in syntax as any other syntactic element.

According to Bošković (1995), Serbo-Croatian 2P clitics have the following properties:

(13) *Lexical properties of SC 2P clitics* Bošković (1995:263)
  a. #_ (where # is an ι-boundary)
  b. Suffix

The requirements in (13) require 2P clitics to be left-adjacent to an ι-boundary (13a) but at the same time to be enclitics, or suffixes (13b). This is possible, according to Bošković, if the clitics are able to merge at PF under PF adjacency with the first ω or the head of the first φ of the ι they occur in (for the details of how exactly it satisfies the requirements in (13) see Bošković 2001:2.3.2).

If a clitic cannot satisfy the properties in (13), it gives rise to a PF violation. Note that Bošković does not see Prosodic Inversion as a rescue operation for sentence-initial clitics, since he argues that Prosodic Inversion cannot properly account for the data (see Bošković 2001:2.2.1 for his criticism of the weak syntactic account).

The strong phonology approach (Radanović-Kocić 1996, 1988) places the phenomenon of second position cliticisation completely in the domain of PF. Within this approach, the second position is a phonological notion (i.e. the position after the first ω or the first φ within an ι), and importantly clitics move there from their original positions postsyntactically. Radanović-Kocić emphasises that it is a phonological feature of clitics that affects their placement, since the class of 2P clitics includes

elements that have nothing in common from the perspective of syntax. Under her account, the 2P clitics are created by the following operations:

(14) Cliticisation (Radanović-Kocić 1996:433)
Assign the feature [+clitic] to pronouns and auxiliaries in all positions except when they carry phrasal stress or when not preceded by an unstressed element.

(15) Clitic Movement (Radanović-Kocić 1996:433)
Move all [+clitic] elements into the second position.

I refer curious readers to the discussion in Bošković (2001) and the original works for more detailed arguments for or against particular approaches. The purpose of the rest of this chapter is to shed light on how particular approaches analyse the behaviour of 2P clitics under ellipsis.

3.2.2 Previous approaches: arguments from ellipsis

Bošković (2001) uses the behaviour of 2P clitics under VP ellipsis as an argument for the phonological nature of the second position in SC. First, consider the following contrast: in (16a), a non-elliptical version of the sentence, the clitic *ga* appears in the second position in the second conjunct, while it can "disappear" from the second conjunct under VP-ellipsis, as in (16b).

(16) a. Marija *ga* nije poljubila, a Ana *ga* jeste poljubila.
Marija him.ACC AUX.3SG.NEG kissed and Ana him AUX.3SG kissed
'Marija didn't kiss him, but Ana did kiss him.'

b. Marija *ga* nije poljubila, a Ana jeste.
Marija him.ACC AUX.3SG.NEG kissed and Ana AUX.3SG
'Marija didn't kiss him, but Ana did.'

Under the assumption that the ellipsis site contains silent syntactic structure, the pronominal clitic is located within it in (16b), as illustrated in (17). This means that the pronominal clitic *ga* in the second conjunct is definitely not located in the second position in syntax, (which would be after the subject *Ana*), whether it precedes or follows the verb in the ellipsis site.

(17) Bošković (2001:82)
Marija *ga* nije poljubila, a Ana jeste
Marija him.ACC AUX.3SG.NEG kissed and Ana AUX.3SG
~~poljubila~~ ~~*ga*~~ / ~~*ga*~~ ~~poljubila~~ .
kissed him.ACC him.ACC kissed
'Marija didn't kiss him, but Ana did.'

The fact that (16b/17) is still grammatical suggests that, at least at a certain stage, it is not important for the syntax whether a clitic is located in the second position or not. Thus, the second position requirement cannot be a syntactic one. However, the grammaticality of (16b/17) can be easily explained if the requirement is phonological. Under Bošković's account, PF acts as a filter, which filters out sentences violating phonological requirements. Since ellipsis in (16b/17) triggers non-pronunciation of the clitic, the clitic becomes invisible for PF and never violates the 2P requirement. In other words, a 2P clitic has to be *pronounced* in the second position (i.e. left-adjacent to an ι-boundary). The 2P requirement is phonological in nature and the syntactic position of a clitic is irrelevant for it. The non-elliptical counterpart of (17), with the clitic pronounced in the corresponding position before or after the verb is ungrammatical, since it violates the 2P requirement, as (18) shows. Note that syntactically the two sentences are assumed to be identical.

(18) * Marija *ga* nije poljubila, a Ana jeste
Marija him.ACC AUX.3SG.NEG kissed and Ana AUX.3SG
poljubila *ga* / *ga* poljubila .
kissed him.ACC him.ACC kissed
Int: 'Marija didn't kiss him, but Ana did.'

Another argument from ellipsis also comes from supporters of the weak phonology approach. Stjepanović (1997, 1998, 1999) uses elliptical examples to prove that 2P clitics do not all cluster together in the same syntactic position.[3]

(19) Stjepanović's judgements:
a. Mi *smo* *mu* *ga* dali, a i vi [*ste*
we AUX.1PL him.DAT it.ACC given and also you AUX.2PL
~~[*mu*~~ ~~[*ga*~~ ~~[dali]]]~~], (takodje).
him.DAT it.ACC given too

[3]Stjepanović (1999) (but not Stjepanović 1998) marks (19a) with one question mark. She says that there is variation among speakers concerning the acceptability of the sentence, which may be due to a phonologically weak element preceding a gap (Stjepanović 1999:fn.6).

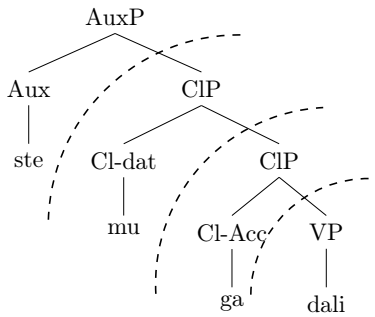
b. Mi *smo* *mu* *ga* dali, a i vi [*ste*
we AUX.1PL him.DAT it.ACC given and also you AUX.2PL
[*mu* ~~[*ga*~~ ~~[dali]~~]]], (takodje).
him.DAT it.ACC given too

c. Mi *smo* *mu* *ga* dali, a i vi [*ste*
we AUX.1PL him.DAT it.ACC given and also you AUX.2PL
[*mu* [*ga* ~~[dali]~~]]], (takodje).
him.DAT it.ACC given too
'We gave it to him, and you did, too.'

Since it is possible to elide only one part of the clitic cluster, it must be the case that each clitic is located in a separate projection, at least at the point when ellipsis applies, otherwise every sentence in (19) would involve non-constituent deletion. Stjepanović also argues that (19) is evidence that clitics can be located fairly low in the structure (contra syntactic approaches), since they are able to be affected by VP-ellipsis.

The approach of Stjepanović (1998, 1999) is illustrated in (20). Ellipsis can target VP or any of the Clitic Phrases (ClPs), where pronominal clitics are located.[4]

(20) Stjepanović (1998, 1999)



However, the situation is complicated by the fact that not everyone shares Stjepanović's judgements about the sentences in (19). Bošković (2001:58) remarks that (19b) is "at least somewhat degraded" for him (he does not comment on (19c)). For Progovac (1998), only (19a), in which all the pronominal clitics are elided and the auxiliary clitic survives ellipsis, is grammatical. Stranding one or both pronominal clitics, as in (19b) and (19c), is not possible for her. Her judgements are summarised in (21).

[4]Stjepanović (1998) leaves open the question of what projections precisely host the clitics. She agrees with Bošković that one possibility is Agr_{IO} and Agr_{DO} and argues for that view in Stjepanović (1999).

(21) Progovac's judgements:

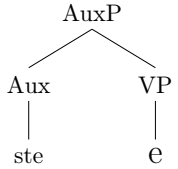
a. Mi *smo* *mu* *ga* dali, a i vi *ste*,
we AUX.1PL him.DAT it.ACC given and also you AUX.2PL
(takodje).
too

b. * Mi *smo* *mu* *ga* dali, a i vi *ste*
we AUX.1PL him.DAT it.ACC given and also you AUX.2PL
mu, (takodje).
him.DAT too

c. * Mi *smo* *mu* *ga* dali, a i vi *ste*
we AUX.1PL him.DAT it.ACC given and also you AUX.2PL
mu *ga*, (takodje).
him.DAT it.ACC too
'We gave it to him, and you did, too.'

She argues that sentences like (21a) involve no surface deletion process at all but rather the generation of a null VP as a complement of AuxP. Pronominal clitics, according to her, are normally generated in the argument positions within VP, while auxiliary clitics are generated in a functional projection above VP. Therefore, pronominal clitics cannot surface in cases like (21a) because they are not present in the structure in the first place, while auxiliary clitics are always present due to their being generated above the null VP. Progovac's proposal is illustrated in (22).

(22) Progovac (1998, 2000)



The discrepancies between various judgement patterns reported in the previous literature necessitate a study representing more data collected from native speakers. Section 3.3 of this chapter introduces the design and the results of the survey I used to collect judgements of native SC speakers, which serve as a basis for the prosodic account of 2P cliticisation presented in Section 3.4, where I also argue that neither of the analyses in (20) or (22) can be correct.

3.3 Interaction of ellipsis and clitic movement: a case study

As Franks (2010:73) phrases it, "there are serious and on-going data debates between her [Progovac] and Stjepanović", which were discussed in the previous section. The survey presented in the current section is aimed at collecting the data from a larger amount of SC speakers and at possibly shedding some light on the possibility of clitic stranding under ellipsis in SC.[5]

Recall also that the original hypothesis put forward in the beginning of this chapter is that ellipsis can help us detect the timing of clitic movement in SC. In this thesis, I follow the common assumption that pronominal clitics originate in argumental positions within VP, and they move out from there to the "second position", whatever it might be. Assuming that, there are two hypothetical options when it comes to the interaction of ellipsis and clitic movement and their relative timing: (i) VP-ellipsis applies before pronominal clitics move out of the VP, in which case clitics are trapped inside the ellipsis site, as in (23a), and (ii) the clitics move out of the VP prior to ellipsis and hence they escape the ellipsis site and appear in the second position, as in (23b). Note that auxiliary clitics always survive ellipsis.[6]

(23) *Hypothetical options*
Mi *ih* nismo videli, a oni *su* rekli...
we them.ACC AUX.1PL seen and they AUX.3PL said
'We didn't see them, but they said...'

a. da jesu [~~videli~~ ~~*ih*~~]
that AUX.3PL seen them.ACC
'...that they did.'

b. da *ih* jesu [~~videli~~]
that them.ACC AUX.3PL seen
'...that they did.'

Based on what has been reported in the literature, two types of speakers are predicted to be represented: speakers of type A would share Stjepanović's judgements and allow both (23a) and (23b), while speakers of type B would be consistent with Progovac and would only allow (23a).

[5]Stjepanović (1999:fn.6) consulted only six native speakers, one of which did not accept any sentences with a clitic preceding the ellipsis site.

[6]For now, I leave open the question of why this is the case, with two possibilities being i) auxiliary clitics originate above the projection targeted by VP-ellipsis and ii) movement of auxiliary clitics out of the ellipsis site is triggered by a different mechanism (with different timing) than movement of auxiliary clitics.

3.3.1 Design of the experiment

The survey consisted of sentences similar to those in (23), embedded in small dialogues. Participants were instructed to judge the answer (A) on a scale from 1 (bad) to 7 (good).[7] An example of an experimental dialogue is given in (24).

(24) An example of an experimental dialogue

Q: Ko *je* šta dao Milanu za rodjendan?
who AUX.3SG what given Milan for birthday
'Who gave what to Milan for his birthday?'

A: Jelena *mu* *je* dala knjigu, a Ana *mu*
Jelena him.DAT AUX.3SG given book and Ana him.DAT
šolju.
mug
'Jelena gave him a book and Ana a cup.'

There were six types of elliptical environments used in the survey:

(a) VPE:
Two coordinated clauses without any contrast, with the verb elided from the second clause and the subject stranded.

(b) VPE$_{contrastive}$:
Two coordinated clauses with contrast in polarity, with the verb elided from the second clause and the subject stranded.

(c) VPE$_{embedded}$:
Two coordinated clauses, the second of which contains an embedded clause with polarity contrasting to the first clause, with the verb missing from the embedded clause and the subject stranded.

(d) VPE$_{wh-mvnt}$:
Two coordinated clauses with contrast in polarity, the second of with contains an embedded question with a moved internal argument *wh*-phrase and the subject stranded.

(e) Gapping:
Two coordinated clauses with contrast, with the verb and the auxiliary elided from the second clause and the subject and another element (such as an object or an adjunct) stranded.

[7] The Likert scale, as opposed to a simple yes / no (grammatical / ungrammatical) answer form, was chosen because it allows us to analyse the data in more detail and detect conditions causing variation in the data, which was expected based on the previous literature.

(f) Right Node Raising (RNR):
Two coordinated clauses with contrast in polarity, with the verb elided from the first clause and the subject stranded.

This particular set of elliptical constructions was chosen to create the baseline for the interaction of 2P cliticisation and ellipsis, and therefore it mostly consists of fairly simple sentences with one auxiliary and one pronominal clitic (clusters containing more clitics are not tested at this stage). It is important to collect data on VPE in coordination from more native speakers considering the disagreement on the judgements presented in the literature before. VPE with *wh*-movement was tested to check the possibility of extraction out of the ellipsis site. VPE in other environments (contrastive, embedded) can shed light upon the conditions of the observed variation in the data, while other elliptical constructions (gapping and RNR) can reveal more details on the behaviour of 2P clitics under ellipsis.

Moreover, gapping has been argued to involve VP-ellipsis (Coppock 2001, Toosarvandani 2013), deletion of a constituent of any category (Boone (2014)), or no ellipsis but Across the Board movement (Johnson (2009)). A similar debate holds for RNR: it has been analysed as derived by ellipsis in the first conjunct (Wexler & Culicover 1980, Levine 1985, 2001, **?**, Wilder 1997, Hartmann 2000) or by rightward Across the Board movement (Ross 1967, Bresnan 1974, Hudson 1976, Maling 1972, Sabbagh 2003). Behaviour of 2P clitics in these environments can indicate which of these accounts are on the right track: if gapping is VP-ellipsis, 2P clitics are predicted to behave similarly to other environments with VP-ellipsis; if gapping and RNR both involve Across the Board movement and no ellipsis, they should pattern together with respect to their interaction with 2P clitics.

To illustrate the different environments listed above, Table 3.5 provides the English translations of examples for each of the environments (the whole list of Serbo-Croatian examples used in the survey can be found in the Appendix).

Type of ellipsis	**Target sentence**
VPE	We saw them, and they did, too.
$\text{VPE}_{contrastive}$	Sandra didn't kiss him, but Jelena did.
$\text{VPE}_{embedded}$	Maja didn't meet him but Nada said that she did.
$\text{VPE}_{wh-mvnt}$	I know what her friends gave her, but I don't know what her parents did.
Gapping	Ana gave him a book and Nada a cup.
RNR	Ana didn't but Nada did kiss him.

Table 3.5: *Examples of target sentences (translated to English)*

The examples in (25)–(30) illustrate the corresponding types of ellipsis with the sentences in SC used in the survey. The pronominal clitics in brackets were either present or absent from a target sentence.

(25) VPE

Mi *smo* *ih* videli, a i oni *su* (*ih*),
we AUX.1PL them.ACC seen and also they AUX.3PL them.ACC
takodje.
too

'We saw them, and they did, too.'

(26) $\text{VPE}_{contrastive}$

Sandra *ga* nije poljubila, a Jelena (*ga*)
Sandra him.ACC AUX.3SG.NEG kissed but Jelena him.ACC
jeste.
AUX.3SG

'Sandra didn't kiss him, but Jelena did.'

(27) $\text{VPE}_{embedded}$

Maja *ga* nije srela, a Nada *je* rekla
Maja him.ACC AUX.3SG.NEG met but Nada AUX.3SG said
da (*ga*) jeste.
that him.ACC AUX.3SG

'Maja didn't meet him but Nada said that she did.'

(28) VPE$_{wh-mvnt}$

Znam šta *su* *joj* prijateli dali, ali ne
know.1SG what AUX.3PL her.DAT friends given but not
znam šta *su* (*joj*) rodjaci.
know.1SG what AUX.3PL her.DAT parents

'I know what her friends gave her, but I don't know what her parents did.'

(29) Gapping

Ana *mu* *je* dala knjigu, a Nada (*mu*) šolju.
Ana him.DAT AUX.3SG gave book and Nada him.DAT cup

'Ana gave him a book and Nada a cup.'

(30) RNR

Ana (*ga*) nije, a Nada *ga* jeste
Ana him.ACC AUX.3SG.NEG and Nada him.ACC AUX.3SG
poljubila.
kissed

'Ana didn't but Nada did kiss him.'

Every types of ellipsis was represented by two different target sentences, each of which occurred with the pronominal clitic elided or appearing in the second position. Therefore, there were 12 conditions, as can be seen in Table 3.6. Since each condition was represented by two different examples, the survey comprised 24 target sentences in total.[8]

Type of ellipsis	**Clitic**	
	stranded	**elided**
VPE	1	2
VPE$_{contrastive}$	3	4
VPE$_{embedded}$	5	6
VPE$_{wh-mvnt}$	7	8
Gapping	9	10
RNR	11	12

Table 3.6: *Design of the survey on SC clitics: conditions*

The sentences were grouped into 6 lists in a pseudo-random order and separated by fillers. Each list contained 4 experimental sentences with

[8]The list of all target sentences can be found in Appendix 6.2.

different elliptical environments (with or without the pronominal clitic) and 2 fillers. The fillers were also small dialogues but involved either no pronominal clitics or no ellipsis at all. Each participant gave judgement to all the sentences in the survey, but the order in which the experimental lists were presented to participants varied. The two variants of a particular example (with or without the pronominal clitic) never appeared in the same experimental list. The survey was distributed using Qualtrics Survey Software.

3.3.2 Participants

43 native speakers of SC (of the age 17 – 57 with a median of 27 years old) participated in the survey, the majority of which (86%) were born in the territory of present-day Serbia. 25,6% of the participants of the survey identified themselves as linguists.

3.3.3 Results

The results of the survey are presented in Table 3.7, which provides the median for each condition. As can be seen from the table, the sentences with elided pronominal clitics are considered acceptable by speakers, while pronunciation of a pronominal clitics in the second position leads to the ungrammaticality or degraded judgements in most cases.

Type of ellipsis	**Clitic**	
	stranded	**elided**
VPE	2	6
$\text{VPE}_{contrastive}$	3	6
$\text{VPE}_{embedded}$	2	7
$\text{VPE}_{wh-mvnt}$	3	6
Gapping	1	7
RNR	5	6

Table 3.7: *Results of the survey on SC clitics: medians (range: 1–7)*

A paired-samples sign test indicated that the difference between pronounced and elided clitics is statistically significant for each environment ($p = .000$).

In sum, the results suggest that most speakers share Progovac's judgements and eliding pronominal clitics together with the verb is a strong

preference for the consulted speakers. In other words, out of the two hypothetical options in (23), only the one with the elided pronominal clitics is grammatical, as is illustrated in (31).

(31) Mi *ih* nismo videli, a oni *su* rekli...
we them AUX seen and they AUX said
'We didn't see them, but they said...'

a. da jesu [~~videli~~ ~~*ih*~~]
that AUX seen them
'...that they did.'

b. * da *ih* jesu [~~videli~~]
that them AUX seen
'...that they did.'

The exception from this tendency is RNR: while still significant, the difference between medians in the case of elided and stranded clitics is much smaller under this condition. It is fair to say that under RNR, pronominal clitics can be either pronounced or elided.[9]

One point that is worth mentioning is the variation among speakers. The standard deviation values are generally quite large for each conditions, as can be seen in table 3.8.

Type of ellipsis	**Clitic**	
	stranded	**elided**
VPE	1.70	1.90
$\text{VPE}_{contrastive}$	1.87	1.57
$\text{VPE}_{embedded}$	1.92	1.56
$\text{VPE}_{wh-mvnt}$	2.09	1.92
Gapping	2.11	0.49
RNR	1.90	1.76

Table 3.8: *Results of the survey on SC clitics: standard deviation*

Such great degree of variation certainly needs to be discussed. The easiest way is to assume that this is reflecting dialectal variation. However, in Section 3.4.6 I argue that it is not the case.

[9]While I present the RNR results here, I do not provide an account for the differences between RNR and VP-ellipsis in this dissertation. It is necessary to collect more data and determine if the contexts used in the survey indeed involve RNR.

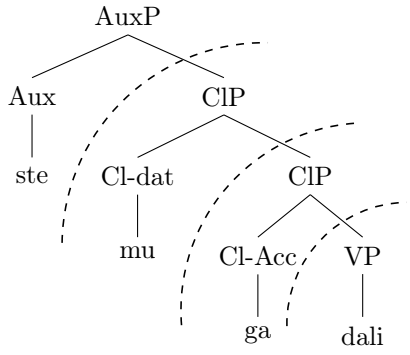
3.4 Accounting for the data: late clitic movement

In this section, I present my account of the interaction of 2P clitic and VP-ellipsis in SC, in particular of the bleeding effect of ellipsis on clitic movement to the second position.[10] The results of the survey presented in table 3.7 suggest that when the verb is elided, the 2P pronominal clitic must be elided with it. At least, this is a strong preference for most speakers participating in the survey. Before introducing my account, in Section 3.4.1, I discuss how previous accounts fail to explain the new data obtained as a result of my survey.

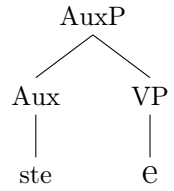
3.4.1 Problems with the previous accounts

Recall that there are two main approaches to the interaction between 2P cliticisation and VP-ellipsis in SC, discussed in Section 3.2.2 and repeated here in (32) and (33). According to Stjepanović's account, 2P clitics are located in separate projections, any of which can be targeted by ellipsis. In Progovac's intuition, pronominal clitics cannot survive ellipsis, and she accounts for that by proposing that in these cases we are dealing with a null VP.

(32) Stjepanović (1997):



(33) Progovac (1998):



The results of the survey suggest that most speakers agree with Progovac's judgements. However, there is also a great deal of variation, meaning that at least some speakers allow stranding of pronominal clitics under ellipsis under some conditions. Nevertheless, the account of Stjepanović (1997) involving different elliptical sites still appears to be too permissive: it allows for much more variation than is actually found in the data.

[10] The discussion in this chapter only involves VP-ellipsis; gapping is discussed in chapter 4.

According to the results of the survey, speakers cannot freely elide any of the functional projections that presumably host 2P clitics. The variation is discussed in more detail in Section 3.4.6.

The null VP account of Progovac (1998) cannot be correct either simply because extraction out of the VP is possible under ellipsis: in (34), the *wh*-phrase has clearly moved from the argument position inside the VP, which would not be possible if the VP were null (see Merchant 2013).

(34) Znam koga *je* Marija poljubila, ali ne znam koga$_i$ *je* Ana
know who AUX Marija kissed but not know whom AUX Ana
~~poljubila~~ ~~t_i~~].
kissed
'I know whom Marija kissed but I don't know whom Ana did.'

As discussed in Stjepanović (1999), the constructions in question (i.e. sentences with a stranded auxiliary and an elided VP) clearly involve VP-ellipsis and not a null VP since it has typical characteristics of VP-ellipsis.

The missing VP requires a linguistic antecedent and cannot be pragmatically controlled: the verb in (35a) cannot be elided due to the absence of any linguistic antecedent, while VP-ellipsis is perfectly fine in (35b) since a linguistic antecedent is provided in the preceding clause. Thus, we are dealing with a surface anaphor in the sense of Hankamer & Sag (1976).

(35) Stjepanović (1999:33)

a. Context: *John is just about to jump from a cliff into the ocean. A group of people are trying to dissuade him from his intent. Peter comes by and says to the crowd:*

* Nemojte *se* brinuti, on neće ~~skočiti~~.
don't REFL worry he won't jump

Int: 'Don't worry, he won't.'

b. Ivan *će* skočiti, a Petar neće ~~skočiti~~.
Ivan will jump and Petar won't jump
'Ivan will jump, but Petar won't.'

Hankamer & Sag (1976:418–419) formulate the following differences between deletion anaphora (i.e. VP-ellipsis) and non-deletion anaphora (i.e. null VP):

> We have shown that it is necessary to distinguish between two classes of anaphoric processes: deletion anaphora, which

> allows missing antecedents,[11] generally gives other evidence of syntactic dependence on intermediate and superficial structures, and cannot be pragmatically controlled; and nondeletion anaphora, which does not allow missing antecedents, gives no indication that the anaphorized constituent was ever syntactically present, and can be pragmatically controlled.

The constructions with missing VPs in SC are an instance of deletion anaphora and do not involve null VP generation, since they give evidence of syntactic dependence, such as extraction out of the ellipsis site (34), and cannot be pragmatically controlled (35).

Thus the null VP analysis of Progovac (1996) cannot account for the data even though most speakers who participated in the survey described in Section 3.3 share her intuition when it comes to the acceptability judgements concerning the data. The explanation of Stjepanović (1997) is not plausible either since it is not the case that ellipsis can freely target either VP or the functional projection where the clitic is located, as her account predicts. According to the results of the survey, stranding pronominal clitics under VP-ellipsis is not allowed, as in (36).

(36) Maja *ga* nije srela, a Nada *je* rekla
Maja him.ACC AUX.3SG.NEG met but Nada AUX.3SG said
da (**ga*) jeste.
that him.ACC AUX.3SG
'Maja didn't meet him but Nada said that she did.'

Therefore, a different explanation of the interaction of 2P cliticisation and VP-ellipsis in SC is needed. I introduce my approach in the next section.

3.4.2 The bleeding effect: possible explanations

First, recall that Bošković (2001) uses the example in (17), repeated here as (37), as an argument for the phonological nature of the 2P requirement.

[11] Stjepanović (1999) shows that the SC construction under discussion licenses the missing antecedent effect, see (i).

(i) Stjepanović (1999:36)

(ii) Ja nikad nisam jahala kamilu, Ivan jeste, i kaže da pro *je*
I never AUX.1SG.NEG ridden camel Ivan AUX.3SG and says that AUX.3SG
šepala.
lame
'I've never ridden a camel, John has, and he says it was lame.'

However, as discussed in Merchant (2013), the missing antecedent effect is not a reliable test for deletion anaphora since *do so* constructions are also able to give rise to the effect.

Since the clitic *ga* in the second clause is definitely not located in the second position in syntax (assuming that it would be linearized after the subject if it were) in (37a) and the sentence is still grammatical, the syntactic component must not be concerned with the 2P clitics (at least not with the pronominal ones). It is the pronunciation of the clitics in any other position rather than in the second position that triggers the violation of the 2P requirement, as shown in (37b).

(37) Bošković (2001:82)

a. Marija *ga* nije poljubila, a Ana
Marija him.ACC AUX.3SG.NEG kissed and Ana
jeste ~~poljubila~~ ~~*ga*~~ / ~~*ga*~~ ~~poljubila~~ .
AUX.3SG kissed him.ACC him.ACC kissed
'Marija didn't kiss him, but Ana did.'

b. * Marija *ga* nije poljubila, a Ana jeste poljubila *ga* / *ga* poljubila.

However, placing the clitic into the second position does not save (37b). According to the results of the survey, (38) is ungrammatical and it is not obvious what causes the ungrammaticality under the weak phonology account, where 2P clitics move in syntax to various Agr positions for Case and and ϕ-feature checking.[12]

(38) * Marija *ga* nije poljubila, a Ana *ga* jeste ~~poljubila~~.
Marija him AUX.NEG kissed and Ana him AUX kissed
'Marija didn't kiss him, but Ana did.'

A lower copy of a clitic can be realised at PF if a higher one violates the 2P requirement. For example, the delayed clitic placement can be accounted for by assuming lower copy pronunciation (see Franks 1999 a.o.). Consider (39).

(39) a. Ja, tvoja mama, (**sam ti*) obećala (*sam ti*) igračku.
I your mother AUX you promised AUX you toy
'I, your mother, promised you a toy.'

b. Ja, tvoja mama, ~~*sam ti*~~ obećala *sam ti* ~~obećala~~ igračku.

SC clitics cannot appear right after an appositive parsed as a separate ι but rather have to be placed further to the right (39a). Franks (1999) proposes that in this case the lower copy of the chain created by clitic

[12] In particular, Bošković assumes that accusatives clitics move to Agr_{do}, dative clitics to Agr_{io}, and auxiliary clitics to Agr_{s}. Moreover, clitics are non-branching elements and are thus ambiguous XP/X^0 elements, which can move to either Agr_{o} or $\text{SpecAgr}_{o}\text{P}$.

movement is pronounced (39b), since the pronunciation of the higher copy is impossible (2P clitics in SC are enclitics and cannot follow an ι-boundary).

Under Franks's account, there is no explanation for why the pronominal clitic cannot appear in the second position under VP-ellipsis since there is no violation which would force the pronunciation of another (lower) copy. In should be noticed that the non-elliptical version of (38) is perfectly fine:

(40) Marija *ga* nije poljubila, a Ana *ga*
Marija him.ACC AUX.3SG.NEG kissed and Ana him.ACC
jeste poljubila.
AUX.3SG kissed
'Marija didn't kiss him, but Ana kissed him.'

In order to account for the interaction of 2P cliticisation and VP ellipsis in SC, we need to account for the contrast between the cases in Table 3.9, in particular, for the bleeding effect of VP-ellipsis on 2P cliticisation.

		clitic in 2P	
		no	**yes**
ellipsis	**no**	*...a Ana jeste (*ga*) poljubila (*ga*). (37b)	^{ok}...a Ana *ga* jeste poljubila. (40)
	yes	^{ok}...a Ana jeste. (37a)	*...a Ana *ga* jeste. (38)

Table 3.9: *The interaction of VP-ellipsis and 2P cliticisation in SC*

There are two possible ways to account for the observed bleeding effect:

(a) VP-ellipsis bleeds *syntactic* movement of clitics to the second position out of the ellipsis site.

(b) VP-ellipsis blocks *postsyntactic* movement of clitic to the second position.

First, let us consider the possibility of *syntactic* clitic movement and the blocking thereof. It is known that ellipsis can bleed syntactic movement, in particular, verb movement. It is well known that sluicing bleeds auxiliary movement in English. As standardly assumed, auxiliaries move to C^0 in questions, as shown in (41b). Since sluicing is IP deletion, the auxiliary is expected to be outside the ellipsis site in (41c), which is actually

ungrammatical. It is only logical to presume that sluicing bleeds (syntactic) T-to-C-movement, as Merchant (2001), Lasnik (1999) do. Lipták & Van Craenenbroeck (2008) also show that sluicing bleeds verb movement in Hungarian and Turkish and provide evidence that sluicing can bleed phrasal movement as well.

(41) a. Max has invited someone.
b. [$_{CP}$ Who [$_{C'}$ has [$_{IP}$ Max [$_{I'}$ t$_{has}$ invited]]]]?
c. Who (*has) ~~[$_{IP}$ Max invited]~~?

Lasnik (1999) notices the same for pseudogapping, as shown in (42): in (42a), he claims, the verb remains in situ in V^0, while normally its raising is obligatory, as the ungrammaticality of (42b) shows. Lasnik proposes that the strong feature, which normally forces the verb to move, is carried by the verb itself. In case the verb does not move and the feature remains unchecked, the derivation would crash at PF. However, if ellipsis applies, the verb is deleted in PF together with its features, and the derivation succeeds. Therefore, pseudogapping (which results from VP-ellipsis, see Jayaseelan 1990, Lasnik 1995) can also bleed verb movement.

(42) a. You might not believe me but you will Bob.
b. *You will Bob believe.

Sailor (2018) argues that VP-ellipsis bleeds (syntactic) verb movement to the second position in Mainland Scandinavian because the head that licenses ellipsis (T^0) merges earlier than the head which attracts the verb (C^0) and ellipsis makes the content of the ellipsis site inaccessible for further operations, following the derivational account ellipsis proposed in Aelbrecht (2010), as discussed in Chapter 1. In the Norwegian example in (43a), the verb cannot escape the ellipsis and appear in the second position; instead, a dummy verb *gjorde* occurs under VP-ellipsis, as in (43b).

(43) a. * Johan leste ikke *Lolita*, men Marie leste.
Johan read.PAST not *Lolita*, but Marie read.PAST
Int: 'Johan didn't read *Lolita*, but Marie did.'
b. Johan leste ikke *Lolita*, men Marie **gjorde**.
Johan read.PAST not *Lolita*, but Marie do.PAST
Int: 'Johan didn't read *Lolita*, but Marie did.'

The analysis of Sailor (2018) is based on the timing differences between two syntactic operations.

Another solution involving timing is to assume that ellipsis bleeds *post-syntactic* movement. This type of analysis is pursued for pseudogapping

in Boeckx & Stjepanović (2001), who take the absence of verb movement in pseudogapping as an argument for head-movement being a PF operation. In their approach, ellipsis and verb movement, both being PF operations, compete with each other, and the verb either moves or gets deleted. There is still a trigger for the verb movement, but is "not featural, but may well be morphological, or prosodic, or a mixture of the two" (Boeckx & Stjepanović 2001:352), making sentences with the verb staying *in situ* ungrammatical in English, as demonstrated in (44).

(44) * Debbie ate chocolate, and Kazuko milk$_i$ drank t_i.

The approaches mentioned above differ in the timing of the application of ellipsis and head-movement that they assume, as summarised in table 3.10.[13]

	ellipsis	head-movement
Lasnik (1999)	syntax	syntax (but lack of obligatory movement results in PF crash)
Sailor (2018)	syntax	syntax
Boeckx & Stjepanović (2001)	PF	PF

Table 3.10: *Views on the timing of ellipsis and head-movement in the light of attested bleeding effects of ellipsis*

I argue that the approach under which ellipsis blocks movement at PF (in the spirit of Boeckx & Stjepanović 2001) accounts for the behaviour of 2P clitics in SC under ellipsis the best.

3.4.3 2P cliticisation is phonological

Recall that auxiliary and pronominal clitics in SC have strong counterparts, which are identical in their feature composition and only differ in their phonological properties. Table 3.11 illustrates this once again for the 3SG masculine pronoun and the 2SG pronoun.

[13]The accounts listed in table 3.10 exhaust the logical possibilities, since an account with ellipsis happening at PF and head-movement in syntax would predict no bleeding effect of ellipsis on head-movement.

	+ clitic	**-clitic**
pronoun 3SG.MASC.ACC	*ga*	njega
pronoun 3SG.MASC.DAT	*mu*	njemu
pronoun 2SG.ACC	*te*	tebe
pronoun 2SG.DAT	*ti*	tebi

Table 3.11: *Clitics and strong forms of pronouns: an example*

Radanović-Kocić (1996) argues that clitics and strong forms belong to the same syntactic category and have the same underlying source, since they represent identical syntactic features and never co-occur in the same clause. This "underlying source", which is actually just a strong form, occupies a position in the structure according to its grammatical function and can become clitics via a process of cliticisation, repeated in (45).[14]

(45) Cliticisation (Radanović-Kocić 1996:433)
Assign the feature [+clitic] to pronouns and auxiliaries in all positions except when they carry phrasal stress or when not preceded by an unstressed element.

All the elements marked as [+clitic] are placed into the second position in PF. An important aspect of this approach is that clitics and full forms are the same elements syntactically, and as a matter of fact there are no clitics in syntax (although it is not completely clear at what point of the derivation (45) applies).

I adopt the spirit of this approach here. I follow Radanović-Kocić in arguing that clitic and strong forms of pronouns and auxiliaries are not distinct elements from the syntactic point of view. In other words, a pronominal or auxiliary element in syntax is not marked as [+clitic] and does not carry any information about its future prosodic status.

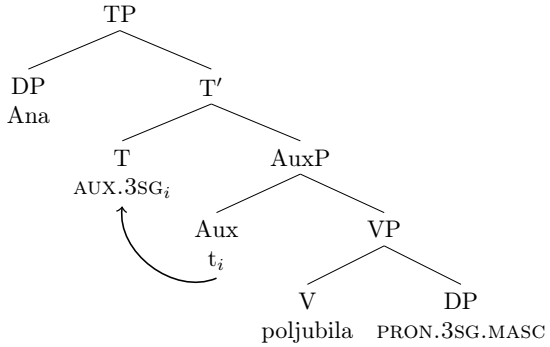
Let us consider the derivation of a simple sentence with 2P clitics, such as (46).

(46) Ana *ga* *je* poljubila.
Ana him.ACC AUX.3SG kissed
'Ana kissed him.'

[14] Radanović-Kocić (1996) does not say explicitly when the [+clitic] feature is assigned, but it must be a postsyntactic operation if it depends on stress placement.

The simplified structure in (47) illustrates the status of pronouns and auxiliaries: in syntax, there is just a 3SG auxiliary and a 3SG.MASC.ACC pronoun. The pronoun is located inside VP, where it is generated as an argument of the verb, and the auxiliary presumably moves to T^0 from Aux^0 to check its features. (other elements are represented as lexical items in their surface positions).

(47) Stage 1: Syntax



Nothing is marked as a clitic in the structure in (47). The prosodic status of pronouns and auxiliaries must be decided upon later in the course of derivation. I suggest that the "decision" takes place at the stage of Vocabulary Insertion. For example, there are two Vocabulary Items that can be associated with the morpheme AUX.3SG: the clitic form *je* or the strong form *jeste*. The latter is chosen in a limited number of configurations (when the element is focus-marked or contrasted, when conjoined or when it follows a preposition (for pronouns). In all the other cases the clitic form is inserted. Therefore, clitics forms are default, while strong forms only appear in specific environments. (48) demonstrates the Vocabulary Items for the strong and clitics forms of the accusative pronoun *ga/njega* 'him'. Recall that according to the Subset Principle of Halle (1997), the item that matches the greatest number of features must be chosen, therefore a strong form must appear under focus while a clitic form appears elsewhere.[15]

(48) a. njega <–> [D; 3SG; M; uACC; +F]
b. ga <–> [D; 3SG; M; uACC]

For example, (47) does not meet the condition for insertion of strong forms (i.e. has no focus feaures), therefore both the auxiliary and the direct argument are spelled out as clitics, as shown in (49).

[15]Other Vocabulary Items must be specified for some other environments where non-clitic forms of pronouns appear, such as after a preposition.

(49) Stage 2: Vocabulary Insertion

Ana *je* poljubila *ga*.
Ana AUX.3SG kissed him.ACC

'Ana kissed him.'

I propose that postsyntactic clitic movement is triggered by the requirement of the clitics themselves to appear in the second position. Therefore only after Vocabulary Insertion (and after the prosodic structure is created) all the elements spelled out as 2P clitics move to the second position within their ι, as illustrated in (50).

(50) Stage 3: Clitic movement at PF

(ιAna *ga* *je* poljubila).
Ana him.ACC AUX.3SG kissed

'Ana kissed him.'

This approach to 2P cliticisation has a number of advantages. First, there is no need to syntactically unify the 2P clitics to account for their movement. It is not necessary to stipulate the non-branching status of auxiliaries just to explain their positioning. In the approach proposed here, pronominal clitics can be ambiguous between X^0 and XP, while an auxiliary clitic can still take VP as its complement. Similarly, there is no need to look for a mysterious syntactic head that would attract syntactically different elements. Finally, it is reasonable to put the phenomenon of 2P cliticisation entirely into phonology, since syntax, as argued for by Bošković (2001) among others, imposes no restrictions or requirements for pronouns and auxiliaries in SC. It is phonology that demands that clitics appear in the second position within their ι (i.e., after the first φ). There is no reason why syntax should be involved at all or why there should be any syntactic differences between clitics and their strong counterparts.

Some differences in behaviour of strong and clitic pronouns in SC are discussed in Despić (2011), based on the classification of pronouns proposed in Cardinaletti & Starke (1999). Despić shows, for example, that clitic pronouns can have both human and non-human referents (51a), in contrast to strong pronouns (51b):

(51) Despić (2011:240)

a. Čuo *sam* *je*.
heard AUX.1SG her
'I heard her' <+hum> / <-hum>

b. Čuo *sam* nju.
heard AUX.1SG her
'I heard her' <+hum> / *? <-hum>

Furthermore, clitics can function as bound variables, as opposed to strong forms of pronouns:

(52) Despić (2011:243)

Svaki predsednik$_i$ misli da *ga*$_i$/??njega$_i$ svi vole.
every president thinks that him everyone love

'Every president$_i$ thinks that everybody loves him$_i$.'

However, the differences are not always present. A strong pronoun can have a non-human referent or be a bound variable in focus environments, for example, when modified by a focus operator *čak* 'even' (53a) or ' *samo* 'only' (53b).

(53) Despić (2011:243-246)

a. Čuo sam čak i **nju**.
Heard am even and her
'I heard even her.' <+hum> / <-hum>

b. Svaki predsednik$_i$ misli da samo **njega**$_i$ svi vole.
Every president thinks that only him everyone love
'Every president$_i$ thinks that everybody loves only him$_i$.'

Despić proposes that in cases like (53), the strong pronoun is in fact a "camouflaged" clitic, which is realised as a strong form in order to be associated with prosodic prominence. Note that this account is similar to the one proposed in this dissertation, with the difference being that I argue that in all cases pronouns are underlyingly neither clitics nor strong forms, and pronouns are realised as strong forms in the environments when they have to be associated with prosodic prominence.

Consider the sentences in (54): (54a) involves a clitic pronoun in a neutral environment, (54b) involves a strong pronoun with an intensifier *sam*, and (54c) involves a strong pronoun in a neutral environment.

(54) Despić (2011:247)

a. Svaka kupola$_i$ se sastoji od 3 dela koji *je*$_i$
Every dome reflexive consists from 3 parts which her
podržavaju.
support
'Every dome$_i$ consists of 3 parts that support it$_i$.'

b. Svaka kupola$_i$ se sastoji od 3 dela koji
Every dome reflexive consists from 3 parts which
podržavaju nju$_i$ samu.
support her INTENS
'Every dome$_i$ consists of 3 parts that support it$_i$ itself.'

c. * Svaka kupola$_i$ se sastoji od 3 dela koji
Every dome reflexive consists from 3 parts which
podržavaju nju$_i$.
support her
Int: 'Every dome$_i$ consists of 3 parts that support it$_i$.'

Under Despić's account, (54a) is grammatical since the bound pronoun with a non-human referent is a clitic. In (54b), according to him, the pronoun is a "camouflaged" clitic modified, which is realised as a strong pronoun since it is in the focus domain of the intensifier. Ungrammaticality of (54c) is caused by the fact that a strong pronoun (which is not a "camouflaged" clitic) cannot be bound by a non-human referent.

There is an alternative explanation, though, consistent with the rule (55) proposed by Cardinaletti & Starke (1999).

(55) Choice of a pronoun (Cardinaletti & Starke 1999:48)
Choose the most deficient form possible.

Under my account, the pronouns in each sentence in (54) are the same underlyingly. Note that (54a) and (54c) are the same except for the form of the pronoun. Since the pronoun occurs in a neutral environment, at the stage of Vocabulary Insertion, a default clitic form is chosen. Therefore (54c) is ungrammatical since it does not meet the conditions for insertion of a strong form. On the other hand, in (54b), such condition (a focus environment) is created by the intensifier.

The next section discusses how postsyntactic movement on clitics interacts with VP-ellipsis and why pronominal clitics cannot be stranded under ellipsis.

3.4.4 The interaction of ellipsis and 2P cliticisation

As discussed in Section 1.3, one of the approaches towards ellipsis is the non-insertion approach, under which ellipsis is considered as lack of insertion of Vocabulary Items into the nodes marked for ellipsis at the stage of Vocabulary Insertion (Bartos 2001, Kornfeld & Saab 2004, Aelbrecht 2010, Saab 2019 a.o.). Saab (2019:10) formulates it as follows:

(56) Any syntactic object that is syntactically marked as elliptical in the syntax is excluded of the LI <Lexical Insertion> procedure.

This view allows us to understand why pronominal clitics cannot survive ellipsis in most cases and why there is no violation of the 2P requirement when the clitics are elided. The core of my account is very simple: as proposed in the previous section, clitics in SC move to the second position postsyntactically, after a vocabulary item with the requirement to appear in the second position is chosen and inserted (in other words, after an auxiliary or a pronoun becomes a clitic at the stage of Vocabulary Insertion). If ellipsis blocks Vocabulary Insertion, insertion of a clitic form never happens: any element inside the ellipsis site that could potentially become a 2P clitics never receives a phonological realisation. Since the requirement to appear in the second position is a property of a vocabulary item and not of a syntactic node, an elided pronoun can not move to the second position.

Put differently, in cases like (57) the choice between a clitic form and a strong form of the pronoun inside the ellipsis site is never made, and it never becomes a 2P clitic with a requirement to move to the second position within its ι.

(57) Marija *ga* nije poljubila, a Ana jeste
Marija him.ACC AUX.3SG.NEG kissed and Ana AUX.3SG
~~poljubila~~ ~~{GA / NJEGA}~~ .
kissed 3SG.MASC.ACC
'Marija didn't kiss him, but Ana did.'

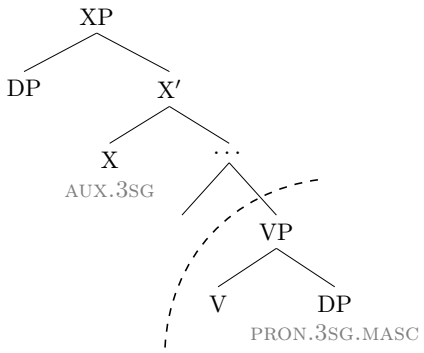
Let us consider the derivation of the second conjunct of (57) with respect to ellipsis and clitic movement. In syntax, according to the approach developed here, the auxiliary and the pronoun are not specified for being a clitic (or not) and do not appear in the second position (unless they are there incidentally):

(58) *Stage 1: Syntax*
... a Ana { JE / JESTE } poljubila {GA / NJEGA}.
and Ana AUX.3SG kissed 3SG.MASC.ACC
'... but Ana kissed him.'

The syntactic structure of (58) is similar to the non-elliptical (47) discussed above.[16] The VP is marked for ellipsis, as (59) shows (the structure is simplified).

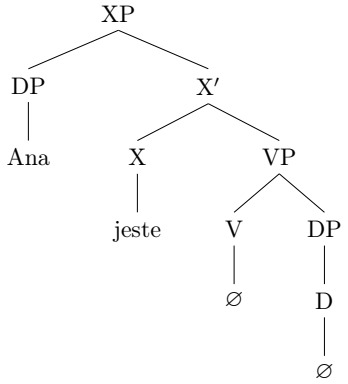
[16]The difference might be in the position of the auxiliary: since there is polarity contrast in (57), the auxiliary might be located in a different projection (and hence realised as a strong form).

(59) *Stage 1: Syntax*



The structure in (60) shows the sentence at the stage of Vocabulary Insertion: the auxiliary is realised as a strong form as it is contrastive to the auxiliary in the antecedent, while the elements inside the ellipsis site do not receive any phonological material since VP-ellipsis blocks insertion of vocabulary items. Note that there is no violation of the 2P requirement not because the pronominal clitic is unpronounced but rather because the sentence contains no 2P clitics at all. Note that (60) represents the absence of VI, or, alternatively, insertion of null morphemes, not the generation of a syntactically empty (null) VP.

(60) *Stage 2: Vocabulary Insertion*



The account sketched above explains why pronominal clitics cannot survive VP-ellipsis: because the corresponding arguments never become 2P clitics and therefore have no motivation to move out of the ellipsis site.

However, recall that there is a great deal of variation in the data obtained as a result of the survey described in Section 3.3. This means that at least for some speakers in certain environments the extraction of arguments out

of the ellipsis site is possible. The next section introduces a possible way to account for this variation.

3.4.5 Why not syntax

It is still possible to pursue an approach in which 2P clitics cannot extract out of the ellipsis site since ellipsis makes all the material in it inaccessible for further syntactic operations, but there are several counterarguments to this account.

First, recall that an auxiliary clitic always survives VP-ellipsis:

(61) Oni *su* kupili novine, a čujem da *(
they AUX.3PL bought newspapers and hear.1SG that AUX.2PL
ste) i vi takodje.
also you too
'They bought newspapers and I heard that you did too.'

In principle, there are two ways to explain the behaviour of auxiliary clitics. It can be that auxiliaries are generated above the projection targeted by VP-ellipsis in SC to begin with, as in the approach of Progovac (1998, 2000) and in this case there is nothing surprising about the fact that auxiliaries survive VP-ellipsis while pronominal clitics do not. However, it is plausible that auxiliaries are generated inside the future ellipsis site. Bošković (2001) follows den Dikken (1994) in arguing that agreement projections are generated above the VP headed by an auxiliary. In Bošković's approach, the pronominal clitics are hosted by those agreement projections, and auxiliaries move to a position above, namely to Agr_S or T, which hosts auxiliaries in sentences like (62), as argued in Bošković (1995), Stjepanović (1997).

(62) Boeckx & Stjepanović (2001:351)

Ivan *je* kupio automobil, a i Marija *je*
Ivan AUX.3SG bought car and too Marija AUX.3SG
kupila ~~automobil~~.
bought car

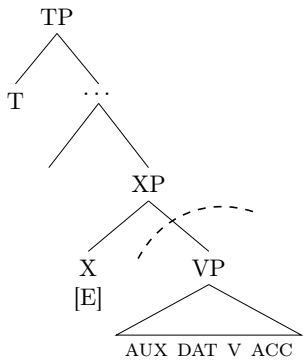
'Ivan bought a car, and Marija did too.'

An auxiliary therefore moves from a position below pronominal clitics to a position above them (pronominal clitics are also generated within the VP and move out to the agreement projections):

(63) Bošković (2001:128)
je_i $[_{Agr_{io}}$ dative clitic $[_{Agr_{do}}$ accusative clitic $[_{VP}$ je_i ...]]]

Assuming that ellipsis targets a projection below the agreement projections, it is difficult to explain why ellipsis bleeds movement of the pronominal clitics out of the ellipsis site but not movement of the auxiliary clitics under this approach. The type of analysis that Sailor (2018) suggests for the absence of verb movement to the second position in Mainland Scandinavian is also difficult to maintain here. Assume that in SC, predicate ellipsis targets the complement of some head X, which carries the [E]-feature, as schematised in (64).

(64) Predicate ellipsis



Under Aelbrecht's derivational ellipsis approach, there are 2 scenarios:

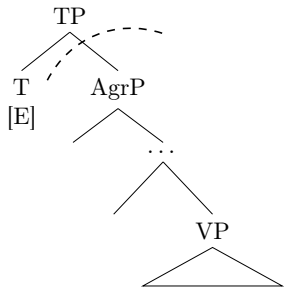
(a) The licensing head is X itself, which means that only the elements moving to Spec,XP escape ellipsis.

(b) The licensing head is higher, namely T, which means that the ellipsis site becomes inaccessible for further syntactic operations when T agrees with X.

Under the first scenario, pronominal clitics survive ellipsis but the auxiliary does not, assuming that pronominal clitics escape VP for feature-checking reasons and move to AgrOs. Under the second scenario, both pronominal and auxiliary clitics survive ellipsis. Neither scenario accounts for the facts correctly.

It is also possible to assume that ellipsis simply targets Agr_{IO}P, as in (65), eliding the pronominal clitics but leaving the auxiliary in T.

(65) AgrP ellipsis



The problem with this account, however, is that it would not explain why *wh*-extraction can proceed out of VPs: at the point when $T_{[E]}$ licences ellipsis, only the subject is outside of the VP (in Spec,TP), while all the internal arguments are "frozen" in the ellipsis site.

Moreover, neither of the scenarios discussed above leave any space for variation. I discuss this problem in Section 3.4.6 and show that the kind of variation that is observed in the data from the survey is not of a dialectal nature since there is a great deal of not only inter- but also intra-speaker variation. This makes it difficult to account for the variation by assuming that different processes can be involved for different groups of people (for example, that ellipsis can target different projections for different types of speakers or even for the same speaker).

Finally, placing the movement of SC clitics into the syntactic component of grammar raises a number of conceptual questions. As Embick & Noyer (2001:556) put it:

> In some cases the question that was posed was whether or not syntactic movement could possibly account for patterns of clitic placement, or in particular second-position phenomena. We take this question to be ill formed. Syntax is a generative system, and assuming that one is willing to loosen many of the constraints on syntactic movement, the ability of such a system to capture certain linear orders should never have been in question. Rather, the question that we take to be central is whether or not it is desirable to have syntax perform such operations.

The most challenging aspect for the syntactic accounts of 2P cliticisation is establishing the motivation for movement and the syntactic position (or positions) where clitic move to. It does not seem feasible to postulate that one particular head attracts multiple elements of different syntactic

classes to satisfy some requirement. For the same reason, it is also not plausible that all clitics move to a particular position to satisfy a requirement of their own. If clitics move to different syntactic positions to check their features, it is too coincidental that they always form a cluster, especially in a language with a highly flexible word order. Why is it the case that the clitic forms have to appear in the second position, but not the non-clitic forms of pronouns and auxiliaries or arguments realised as full noun phrases and lexical verbs may appear in nearly any position in a sentence?

To explain this discrepancy, proponents of the syntactic movement of clitics have to come up with additional assumptions about the syntactic properties of clitics. While it is quite standard to follow Chomsky (1995a) in defining clitics as non-branching element ambiguous between X^0 and XP, it is not always easy to implement this assumption. For example, auxiliaries cannot be viewed as heads taking VP as its complement since it would make them branching. Bošković (2002) suggests that auxiliary clitics are located in a specifier position of a phrase headed by a null element, resulting in a structure as in (66a) instead of the traditional (66b).

(66) a. $\ldots[_{XP}\ [_{AuxP}\ \mathbf{AUX}^0\ ]\ [_{X'}\ \varnothing\ [_{VP}\ \ldots \mathrm{V}^0\ \ldots]]]$
b. $\ldots[_{AuxP}\ [_{Aux'}\ \mathbf{AUX}^0\ [_{VP}\ \ldots \mathrm{V}^0\ \ldots]]]$

These complications can be avoided by eliminating clitic movement from syntax. After all, the only thing that unites the second position clitics is their phonological deficiency. Given that the second position itself is also a phonological notion in SC, as Bošković (2001) argues, it is only reasonable to suggest that the syntax plays no role in positioning the clitics, and these phonologically weak items are placed into the phonological second position, i.e. the second position within an ι, in the phonological component of the grammar.

3.4.6 Variation: taking a closer look at the data

In order to account for the variation found in the data it is necessary to establish what can be a possible source of this variation: does it reflect differences between dialects, diachronic changes, or something else? To answer this question, we need to take a closer look at the data.

As discussed above, I expected to find two types of speakers, based on the discussion in the previous literature: the speakers of the first type would share Progovac's judgements and disallow stranding of pronominal clitics under VP-ellipsis, as in (67a); the speakers of the second type would share Stjepanović's judgements and allow stranding of pronominal clitics, as in (67b).

(67) Two expected types of speakers:

a. Type 1:
Mi *smo* *ih* videli, a i oni *su*
we AUX.1PL them.ACC seen and also they AUX.3PL
(*ih), takodje.
them.ACC too
'We saw them, and they did, too.'

b. Type 2:
Mi *smo* *ih* videli, a i oni *su*
we AUX.1PL them.ACC seen and also they AUX.3PL
(*ih*), takodje.
them.ACC too

The data are more complicated, though. Table 3.12 illustrates types (T) of SC speakers according to their judgements of the two sentences with VP-ellipsis (VPE_1 and VPE_2 in the table), shown in (68), with pronominal clitics stranded (*str*) or elided (*el*).[17]

(68) a. VPE_1:
Mi *smo* *ih* videli, a i oni *su*
we AUX.1PL them.ACC seen and also they AUX.3PL
(*ih*), takodje.
them.ACC too
'We saw them, and they did, too.'

b. VPE_2:
Mi *smo* *mu* *ga* dali, a i oni *su*
we AUX.1PL him.DAT it.ACC given and also they AUX.3PL
(*mu* *ga*), takodje.
him.DAT it.ACC too
'We gave it to him, and you did, too.'

[17]Note that Table 3.12 is presented for illustrative purposes only; individual cases that do not match any type are not included in the table. The table is based on the results of the survey described in section 3.3; ok = 6-7, ? = 3-5, * = 1-2.

	T1	**T2**	**T3**	**T4**	**T5**	**T6**	**T7**	**T8**
VPE$_1$*str*	*	?	*	*	*/?	ok	?	*
VPE$_1$*el*	ok	ok	ok	ok	*/?	ok	ok	*/?
VPE$_2$*str*	*	?/*	*	*	*	*	ok	*
VPE$_2$*el*	ok	ok	*	?	ok	ok	?	*/?
%	20%	6.7%	13%	8.8%	15.4%	4.4%	4.4%	13.2%

Table 3.12: *Illustration of the observed types of speakers*

As can be concluded on the basis of Table 3.12, the situation is quite complex. First, it is definitely not the case that we only have speakers of two types. Second, there are no speakers (among those participating in the survey) who would share Stjepanović's judgement and consistently allow both stranding and ellipsis of pronominal clitics (that is to say there is no type with "ok" in all four rows in the table). Third, there are groups of speakers with contradicting judgements across the types (for example, speakers of Type 3 and Type 4 vs. speakers of Type 5).

To summarise, the biggest group of speakers (T1) are the "ideal" speakers for whom pronominal clitics must be elided in the case of VP-ellipsis. There is also a smaller group of people (T2) for whom deletion of pronominal clitics is still a preference but their stranding is not completely ungrammatical. For a considerable group of people it is also obligatory to elide pronominal clitics, but for some reason they judged one of the sentences with elided clitics ungrammatical or degraded as well (T3, T4, and T5). There is a small group of speakers who allow clitic stranding in one of the cases (T6 and T7). Finally, there is a type of speakers who found all the variants ungrammatical or degraded (T8). Note that in this case there is still an asymmetry between the variants with elided and stranded clitics: only sentences with elided clitics were judged as degraded and not entirely ungrammatical.

Therefore it is not tenable to try to explain this variation by virtue of dialectal diversity. The variation can be instead accounted for by assuming that the difference lies in the structure of elliptical sentences with pronominal clitics stranded and elided. I propose that when clitics survive ellipsis, they are in fact scrambled out of the ellipsis site prior to ellipsis.

As discussed in Bošković (2007), Serbo-Croatian is a language that has Japanese-style, semantically vacuous scrambling, in addition to topicalization and focalization. As (69) demonstrates, any word order is possible (in simple cases like this), with SVO being the default option.

(69) Progovac (2005:12)

a. Ana kupuje knjigu.
Ana buys book
'Ana is buying a book.'

b. Ana knjigu kupuje.

c. Knjigu Ana kupuje.

d. Knjigu kupuje Ana.

e. Kupuje Ana knjigu.

f. Kupuje knjigu Ana.

Assuming that scrambling is a syntactic operation, I suggest that in cases when pronominal clitics survive VP-ellipsis, they are scrambled out of the ellipsis site prior to ellipsis. Note that it is not a special clitic movement but rather a standard operation that can apply to any argument. Therefore, in order for a pronominal clitic to survive ellipsis, the argument it realises has to be located higher in the structure (as a result of movement) than it would be when the clitic is elided.

Thus, sentences with clitics elided would have the neutral word order (70a), while sentences with clitics surviving ellipsis would have the direct object scrambled out of the ellipsis site (70b). It will be realised as a clitic at the stage of Vocabulary Insertion and the clitic will subsequently move to the second position within its ι.

(70) a. ... a Ana nije [~~poljubila~~ ~~{GA / NJEGA}~~].
and Ana AUX.NEG kissed 3SG.MASC.ACC

b. ... a Ana {GA / NJEGA}$_i$ nije [~~poljubila t_i~~].
and Ana 3SG.MASC.ACC AUX.NEG kissed
'... but Ana didn't (kiss him).'

The variation then can be accounted for by postulating that speakers differ in their preferences with respect to the word order and their interpretation of the context as sufficient for scrambling. Although numerous word orders are possible for a given sentence, not all of them are felicitous in every context. Among the sentences in (69), only (69a) is felicitous in a neutral all-new context, such as an answer to a question "What's happening?" (Progovac 2005). Some of the factors that are relevant for determining if a certain word order is appropriate are the information structure of a sentence and its prosodic properties (Stjepanović 1999).

3.5 Apparent syntactic effects of clitic placement

In his critique of the purely phonological placement of 2P clitics in SC, Bošković (2001) deploys several arguments that I address in the current section in order to show that a phonological placement approach can deal with them.

3.5.1 Prosodic phrasing and clitic placement: the 1W / 1D dichotomy

The first objection Bošković raises against the account of Radanović-Kocić (1996), under which clitics are derived from the corresponding full forms and move to the second position postsyntactically, is the variability of clitic placement with respect to the noun phrases with modifiers. As discussed in the beginning of this chapter, 2P clitics in SC can be placed either after the first constituent of a clause (71a), the so-called 1D placement, or after the first word (71b), seemingly breaking up a constituent, the 1W placement.

(71) Bošković (2001)

a. Taj čovjek *je* volio Milenu.
that man AUX loved Milena

b. Taj *je* čovjek volio Milenu.
that AUX man loved Milena
'That man loved Milena.'

Radanović-Kocić proposes that 2P clitics are always placed after the first φ and in cases like (71), two phonological phrasings are possible: either the determiner and the noun form a φ together, which results in 1D clitic placement, as in (71a), or a determiner forms a φ of its own, which results in 1W placement, as in (71b), the possibility which Bošković finds questionable.

In the strictly syntactic accounts, the 1W placement is accounted for via syntactic movement. Serbo-Croatian is a language that allows left-branch extraction (LBE) (Ross 1986, Bošković 2005). Progovac (1996), Wilder & Ćavar (1994a) propose that it is that mechanism that is responsible for 1W placement. They observe that only elements that can independently undergo movement can host 2P clitics in 1W environments, which includes possessives, determiners (both being morphologically adjectival) and other adjectives. These elements can undergo left-branch extraction and thus be syntactically separated from the head noun, as shown in (72).

(72) Progovac (1996:415)

Anina / mladja / ova dolazi sestra.
Ana's younger this comes sister

'Ana's/the younger/this sister is coming.'

Recall that under syntactic accounts, 2P clitics move to a particular syntactic position (C^0, for example). The difference between (73a) and (73b) then is in what moves to the specifier of that position: the whole noun phrase or the modifier which undergoes left-branch extraction. The two possibilities are illustrated in (73), with the examples taken from Progovac (1996:414).

(73) a. [$_{NP}$ Anina sestra] [$_{C'}$ *im*] nudi čokoladu.
Ana's sister them offers chocolate

b. [$_{AP}$ Anina]$_i$ [$_{C'}$ *im*] [$_{NP}$ t$_i$ sestra] nudi čokoladu.
Ana's them sister offers chocolate

'Ana's sister is offering them chocolate.'

In (73b), I adopt the analysis of LBE as movement of AP out of NP, but the account proposed below holds under other analyses of LBE as well. An important point is that under all the analyses (at least those that I am aware of) LBE involves phrasal movement, and thus the extracted possessor is or is realised as the only member of the moved constituent. This is true for i) the analysis of Corver (1990, 1992) and Bošković (2005, 2008), where AP adjoins to NP (or N) and can move out of that position in non-DP languages, as in (74a); ii) the analysis of Franks & Progovac (1994), Franks (1997), who adopt the structure where A takes NP as a complement, involving movement of the remnant AP after NP extracts out of the AP, as (74b) illustrates; iii) the scattered deletion analysis of Ćavar & Fanselow (2000), represented in (74c).[18]

(74) a. [$_{\text{AP}}$ Crveno]$_i$ on je kupio [$_{\text{NP}}$ t$_i$ [$_{\text{NP}}$ auto]]]]].
red he is bought car

'He bought a red car.

b. [$_{\text{AP}}$ Crveno t$_i$]$_j$ je on kupio t$_j$ [$_{\text{NP}}$ auto]$_i$.
red is he bought car

c. [Crveno ~~auto~~] je on [~~crveno~~ auto] kupio.
red car is he red car bought

Going back to the 1D versus 1W clitic placement, if a modifier and the head noun can optionally form one syntactic constituent (see (73)), they

[18]The structures in (74) are based on Bošković (2005).

should be able to optionally form a φ as well. As discussed in Chapter 1, prosodic structure reflects syntactic structure, since it is being built on the output of syntax using the rules of syntax-prosody correspondence. Therefore, the differences in syntactic structures between (73a) and (73b) should be reflected in the mapping from syntax to prosody as well. Consider the faithfulness constraints of Match theory (Selkirk 2009b, 2011b), which require syntactic constituency to be faithfully reflected in prosodic phrasing:

(75) Match Phrase (Selkirk 2011b)
A phrase in syntactic constituent structure must be matched by a constituent of a corresponding prosodic type, call it φ, in phonological representation,

After the application of Match Phrase, the two sentences in (73) will have different prosodic structures, shown in (76): either the possessive adjective and the head noun form a single φ (=φ), or the adjective forms a separate φ (76a), if it is separated from the head noun syntactically (76b).

(76) a. ($_{\varphi}$ Anina sestra) *im* nudi čokoladu.
Ana's sister them offers chocolate
'Ana's sister is offering them chocolate.'

b. ($_{\varphi}$ Anina) *im* ($_{\varphi}$ sestra) nudi čokoladu.
Ana's them sister offers chocolate

Going back to (71b), the possibility of a determiner forming a φ of its own depends on the possibility of left branch extraction: if a determiner can be the only element of the fronted constituent, it can (and must) be parsed as a separate φ by the matching rules.[19] Both accounts therefore capture the same set of data, and it is still possible to postulate that 2P clitics are required to follow the first φ of their ι in that case.[20]

[19]It is questionable whether a determiner is ever *pronounced* as a separate φ. This is regulated by the rules of prosodic readjustment, which operate on the prosodic structure created based on the output of syntax, see chapter 1. Clitic placement is sensitive to the "original" prosodic structure. In fact, clitic placement itself might be viewed as a process of prosodic readjustment.

[20]The situation is somewhat more complicated by the fact that clitics also seem to be sensitive to the type of the prosodic boundary preceding the host, as discussed in Bošković (2015): while both 1W and 1D placements are possible after an utterance boundary (or a ι_{max} boundary, using the terminology adopted here), only 1W placement is acceptable (or at least highly preferred) after an intonational boundary that is not an utterance boundary (a boundary of a non-maximal ι), for example, in an embedded clause. I leave this pattern for future investigation.

3.5.2 The Leo Tolstoy argument

Another well-known example of Franks (2010), Bošković (2001, 2009a) regarding the 2P clitic placement in SC involves complex names, with one case being Leo Tolstoy. The pattern is as follows. In SC, both parts of a complex name (in this case, *Lav Tolstoj*) normally bear case inflection, as in (77a). However, it is possible to inflect only the first or the last name, as in (77b)–(77c).[21]

(77) Bošković (2001:77)

a. Lav-a Tolstoj-a *sam* čitala.
Leo-ACC Tolstoy-ACC AUX.1SG read
'I read Leo Tolstoy.'

b. ? Lav-a Tolstoj *sam* čitala.
Leo-ACC Tolstoy AUX.1SG read

c. Lav Tolstoj-a *sam* čitala.
Leo Tolstoy-ACC AUX.1SG read

Importantly, SC also allow extraction of the first part of a complex name, but only when both parts are inflected:

(78) Bošković (2009a:100)

a. Lav-a čitam Tolstoj-a.
Leo-ACC read Tolstoy-ACC
'I read Leo Tolstoy.'

b. * Lav-a čitam Tolstoj.
Leo-ACC read Tolstoy

c. * Lav čitam Tolstoj-a.
Leo read Tolstoy-ACC

As expected based on the discussion above, 2P clitics can separate a complex name only when the first name is able to undergo movement, i.e. when both parts are inflected:

(79) Bošković (2009a:100)

a. Lav-a *sam* Tolstoj-a čitala.
Leo-ACC AUX.1SG Tolstoy-ACC read
'I read Leo Tolstoy.'

[21] This pattern is subject to variation, however. As mentioned in Bošković (2009a), the speakers differ in what names in particular and under which conditions they are allowed to appear in an uninflected variant. The judgements reported in the literature are not consistent, either: examples with only the first name inflected (77b) are marked as degraded in Bošković (2001) and Franks (2010) but presented as grammatical in Bošković (2009a).

b. * Lav-a *sam* Tolstoj čitala.
Leo-ACC AUX.1SG Tolstoy read

c. * Lav *sam* Tolstoj-a čitala.
Leo AUX.1SG Tolstoy-ACC read

The clitic placement in (79) is explained through the ability of the host to undergo movement. Bošković (2009a) proposes the following structures for the complex names. If the first name is inflected, it is located in the specifier of the second name, as in (80a) and (80b) , while if the first name remains uninflected, it forms a complex head with the second name, as in (80c). According to Bošković, extraction out of the configuration in (80a) is just an instance of left branch extraction, while extraction in the case of (80b) is not possible because left branch extraction requires case agreement between the remnant and the moved element. Clearly, a part of a complex head cannot undergo left branch extraction.

(80) a. $[_{XP}$ Lava $[_{X'}$ Tolstoja]]
b. $[_{XP}$ Lava $[_{X'}$ Tolstoj]]
c. $[_{XP}$ $[_{X'}$ $[_{X^0}$ Lav Tolstoja]]

Bošković (2001:77–78) finds the pattern in (79) difficult to explain under the PF clitic movement account for the same reasons as discussed in the previous section: it is dubious that *Lava* forms a separate φ in (79a) but not in (79b). But the argument about the syntax-prosody correspondence from the previous section also holds here.

If we consider Match Theory, it is obvious that the parts of a complex name in the configuration like (80c) will never form separate φs (or even separate ωs, see (81c)), so clitics can never intervene. In the case of (80b), a complex name will again form one φ since both parts are located within the same XP, as shown in (81b). Finally, if both parts of a complex names are inflected, they will be parsed as one φ if the first name is in the specifier of the second name or as two separate φs if the first name undergoes left branch extraction, see the two variants in (81a). Since 2P clitics follow the first φ of their ι, they can only separate the complex name when the two parts form separate φs, which is only possible in (81a).

(81) a. (φ (ω Lava) (ω Tolstoja)) or (φ (ω Lava)) (φ(ω Tolstoja))
b. (φ (ω Lava) (ω Tolstoj))
c. (φ (ω Lava Tolstoj))

In sum, Match Theory predicts that only when both parts of a complex name are inflected, they can optionally form two independent φs, given

the syntactic structures in (80), proposed by Bošković (2009a), are true.[22] Then, if 2P clitics have the requirement to follow the first φ of their ι, it is expected that they can intervene between the parts of a complex name only in the case of a standard inflection pattern.

3.5.3 Participle movement over an auxiliary

The last counterexample to the strict phonological account from the previous literature discussed in this chapter involves participle movement over an auxiliary, which is possible only if the auxiliary is realised as a clitic, as shown in (82).

(82) Bošković (2001:76)

a. Poljubili *su* Mariju.
kissed AUX.3PL Marija
'They kissed Marija.'

b. * Poljubili jesu Mariju.
kissed AUX.3PL Marija
Int: 'They did kiss Marija.'

Sentences like (82a) are standardly analysed as involving long head-movement of the participle (Rivero 1991, Lema & Rivero 1992, Wilder & Ćavar 1994b) over the finite auxiliary.

Bošković (2001:76-77) uses the contrast in (82) to criticise the postsyntactic clitic movement account with the following argument. If a clitic auxiliary *su* and its non-clitic form *jesu* are the same element syntactically and semantically, the ungrammaticality of (82b) indicates that (82a) cannot be analysed as involving movement of the particle over the auxiliary. The only way to derive (82a) is then to assume that it involves preposing of the whole VP $[_{\text{VP}}$ *poljubili Mariju*] (just as in (83) with a non-clitic auxiliary) with subsequent movement of the auxiliary clitic *su* to the second position.

(83) Poljubili Mariju jesu.
kissed Marija AUX.3PL
'Kiss Marija, they did.'

Then, according to Bošković, the ungrammaticality of (84a) is a problem for the postsyntactic clitic movement account: (84a) is expected to be

[22] It seems, however, that (81b) with the second name uninflected requires more clarification, since it is not clear why it can bear the default nominative instead of the required case and why this option is only available for foreign names (see Bošković 2009a:fn.2). These questions lie outside the scope of topics discussed here, however.

grammatical since movement of the VP out of the complement clause is allowed, as (84b) shows. Bošković concludes that the grammaticality of participle-auxiliary constructions like (82a) cannot be properly accounted for under the assumptions that clitics move postsyntactically.

(84) Bošković (2001:77)

a. * Poljubili *si* Mariju tvrdio da nisu.
kissed AUX.2SG Marija claimed that AUX.NEG.3PL
Int: 'Kiss Marija, you claim that they didn't.'

b. ? Poljubili Mariju *si* tvrdio da nisu.
kissed Marija AUX.2SG claimed that AUX.NEG.3PL

The above argument is based on the assumption that if clitic and non-clitic auxiliaries are the same element syntactically, they occupy the same position in both sentences in (82). Under my account, the auxiliaries in (82a) and in (82b) have to occupy different positions in syntax in order to be realised differently (as a clitic and a non-clitic form, respectively).

Note that (83) has emphasis on polarity, hence it is reasonable to assume that the auxiliary in that case occupies the head position of the Polarity Phrase (PolP) and is focused.[23] Therefore, during the VI, the item matching the [+F] feature will be chosen, which is the strong, not the clitic form of the auxiliary.

Therefore, even under the phonological account of 2P cliticisation in SC, the contrast between the sentences in (82) can be explained in syntactic terms, since the auxiliaries in them occupy different syntactic positions, as illustrated in (85).[24] The difference between the strict phonological account and the other accounts in this case is just in the fact that the syntax does not "know" if the auxiliaries in (85a) and (85a) are clitics or not.

(85) a. Poljubili $[_{T}$, SU / JESU $]$ Mariju.
kissed AUX.3PL Marija
'They kissed Marija.'

b. * Poljubili $[_{POL}$, SU / JESU $]$ Mariju.
kissed AUX.3PL Marija
'They did kiss Marija.'

[23] In fact, this is exactly what Bošković (1995) proposes for non-clitic auxiliaries (he uses Σ of Laka (1990), which represents negation and affirmation).

[24] I put the auxiliary in (85a) into T, while according to Bošković (1995) it stays *in situ* in Aux. The details about the exact position of the auxiliary are not important for the issues discussed here.

The exact account of why participle movement is possible in (85a) but not in (85b) is not important here. What is important is that the auxiliaries in these sentences occupy different syntactic positions and therefore are realised differently. The claim that they are the same element syntactically means that they are identical in their morphosyntactic features but they (or rather it, since there is only one element) can still occupy different syntactic position in different structures.

I argue that an auxiliary in Pol^0 is always realised as a strong form, while an auxiliary in T^0 (or another position which auxiliary occupies in neutral, not contrastive or emphatic, cases) is realised as a clitic (which is an elsewhere Vocabulary Item).

My view on clitics is reversed with respect to the one of Bošković (1995) (and many others): while they claim that clitic and non-clitic auxiliaries are different syntactic elements that occupy different syntactic positions (in a way, the syntactic position of an element is dependent on its form), I argue that they are not differentiated in syntax but rather in phonology, based on the position which the auxiliary occupies in a particular sentence (and the form of an element is determined by its syntactic position).

One of the differences not discussed here is the height effects observed with SC clitics: auxiliary clitics can precede subject-oriented adverbs, while (argumental) pronominal clitics cannot, as discussed in Bošković (2001, 2004): the sentential-subject reading of the adverb is available in (86a) but not in (86b).

(86) Bošković (2004:54)

a. Oni *su* pravilno odgovorili Mileni.
they AUX.3PL correctly answered Milena.DAT
'They did the right thing in answering Milena.'
'They gave Milena a correct answer.'

b. Oni *su* *joj* pravilno odgovorili.
they AUX.3PL her.DAT correctly answered
'*They did the right thing in answering her.'
'They gave her a correct answer.'

How this pattern could be accounted for under the current account is not straightforward. However, it is unclear whether the missing reading in (86b) should be ruled out with reference to a structural explanation. As was pointed out to me by B. Arsenijević, the missing reading is available when the participle is followed by more material and the adverb is preceded and followed by intonational breaks (a condition necessary for the availability of the sentential subject reading for this speaker). When both conditions are satisfied, (87b) allows for the exact same meaning as (87a).

(87) a. Oni *su* # pravilno # odgovorili Mileni.
they AUX.3PL correctly answered Milena.DAT
'They did the right thing in answering Milena.'

b. Oni *su* *joj* # pravilno # odgovorili u ponedeljak.
they AUX.3PL her.DAT correctly answered on Monday
'They did the right thing in answering her on Monday.'

3.6 Summary

The account of 2P cliticisation in SC developed here is based on the postsyntactic clitic movement account proposed in Radanović-Kocić (1996, 1988) and falls into the group of strict phonological approaches in the classification of Bošković (2001).

I propose that 2P cliticisation is a purely phonological process in SC (at least for auxiliaries and pronouns). Under this view, there are no morphosyntactic differences between the clitic and non-clitic forms of auxiliaries and pronouns, meaning that they are identical in their featural composition (in fact, they should not be conceived as distinct items, since there is only one syntactic element corresponding to the clitic auxiliary *je* and its non-clitic counterpart *jeste*, for example). At the point of Vocabulary Insertion, one of the forms is chosen, based on the syntactic environment or the presence of the [+F]-feature. For instance, as discussed in Section 3.5.3, an auxiliary in T^0 is realised as a clitic, while a focused auxiliary in Pol^0 is realised as a non-clitic form. Only after that (and after the creation of the prosodic structure), 2P clitics are aligned following the first φ withing their ι.

While many researchers agree that the second position itself should be defined in phonological terms (as the second position within an intonational phrase), postulating that clitics move to the second position postsyntactically has been viewed as a marginal and undesirable way of analysing the phenomenon of 2P cliticisation. There are two potential downsides of the account developed in this chapter.

One argument against the strong phonological approach, put forward in Bošković (2001:78), is the fact that a postsyntactic rule of clitic movement to the second position, like the one in (88), fails to capture any syntactic effects on clitic placement, like the one that only the elements that can independently undergo syntactic movement (for example, left branch extraction) can host clitics (in addition to those that are base generated in a position preceding the clitics).

(88) Clitic Movement (Radanović-Kocić 1996:433)
Move all [+clitic] elements into the second position.

However, as argued in Section 3.5, prosodic structure reflects syntactic structure since it is built using the rules of syntax-prosody correspondence. Hence, the alleged syntactic effects can also be captured under the phonological account of 2P cliticisation.

The second potential disadvantage of the approach developed here is in assuming the existence of postsyntactic movement operations as such. However, the necessity of having some kind of postsyntactic reordering (to different extents) in the system has been repeatedly discussed in the literature and postsyntactic movement of clitics has been proposed for different languages (Roberts 1997 for Pashto, Marušič 2008 for Slovenian, and Bennett et al. 2016 for Irish). Following the argument of Embick & Noyer (2001), the question is how desirable it is to put clitic movement in SC into the syntactic component of the grammar. In my opinion, there are not enough reasons to do that for Serbo-Croatian, since it is obvious that clitic placement is sensitive to the prosodic organisation of a sentence, and apparent syntactic restrictions on clitic placement can also be explained by the syntax-prosody correspondence. The phonological nature of 2P cliticisation in Serbo-Croatian becomes even more prominent in comparison to Slovenian, which exhibits the strictly syntactic pattern of clitic placement, as discussed in the next chapter.