# Clitic Pseudo-Climbing out of Dependent Infinitive Phrases in Serbian\*

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Abstract: The paper describes the linear placement of Serbian clitics syntactically depending on an infinitive in the role of verbal, nominal, or adjectival complement (for short, infinitive clitics). Two linear placement options are in principle available for the infinitive clitics: local placement (in the second linear position [2P] of the infinitive phrase, where they form a cluster of their own) and clause-level placement (in the 2P of the clause, where they join clause-level clitics). Syntactic and prosodic conditions licensing these placement options are discussed and the corresponding clitic linearization rules proposed within a Meaning-Text dependency-based approach to syntax (Mel'čuk 1988, 2013; Polguère and Mel'čuk 2009). It is shown that clause-level placement of 2P clitics (unlike that of ad-verbal clitics of the Romance type) does not require the change of the syntactic governor of the clitics and should therefore be set apart from genuine clitic climbing. This is why the corresponding phenomenon is termed "clitic pseudo-climbing".

#### 1. Overview of the Problem

The paper deals with a specific word-order phenomenon in Serbian: linear placement of the clitics that syntactically depend on an infinitive subordinated to another lexeme—typically a verb, but also a noun or an adjective. For ease of reference, these clitics—the reflexive marker SE and clitic forms of personal pronouns (in the genitive, dative, and accusative)—will be called infinitive clitics.<sup>1</sup>

<sup>\*</sup> This paper is an extended version of a talk given at the 2016 Toronto meeting of the Slavic Linguistic Society.

<sup>&</sup>lt;sup>1</sup> I will assume familiarity with such basic notions as *clitic, clitic cluster, host of a clitic,* etc. Nevertheless, explanations deemed necessary will be provided. For an overview of Serbian clitics, which are second position clitics and include, in addition to the above-mentioned items, clitic forms of auxiliary verbs, an interrogative, and an emphatic particle, see, for instance, Spencer 1991: 351–58 and Franks and Holloway King 2000: 17–31.

Among the dative clitic pronouns, only genuine object clitics will be considered, i.e., those realizing inherent syntactic actants (a.k.a., in other frameworks, syntactic arguments) foreseen in the government pattern of their governors. Possessive and ethical dative clitics are excluded from the discussion.

While clause-level clitics are gathered into a single cluster and placed, roughly speaking, in the second linear position [2P] in the clause, infinitive clitics have, in principle, two basic placement options:

- 1) Non-local placement: clause-level placement, in a single cluster with clause-level clitics (if present).
- 2) Local placement: placement in the 2P within the infinitive phrase, with clause-level clitics either joining the cluster of infinitive clitics or forming a separate cluster outside of the infinitive phrase.

In the linguistic literature, non-local placement of the infinitive clitics is commonly viewed as the result of clitic climbing out of the infinitive phrase into the "matrix clause". However, in the Meaning-Text dependency framework (Mel'čuk 1988, 2013; Polguère and Mel'čuk 2009), the term *climbing* turns out to be a misnomer when applied to 2P clitics. As we shall see below (Section 3), 2P clitics do not "climb" in the sense that ad-verbal clitics in Romance languages do, i.e., they do not change the syntactic governor. At most, 2P clitics display what could be called "climbing effects". For this reason, this particular clitic placement option will be referred to as clitic pseudo-climbing [CPC].

Whether infinitive clitics are placed non-locally or locally depends on a combination of syntactic and prosodic factors (to be discussed in more detail in Section 2)—in the first place on the linear position/syntactic role of the infinitive phrase and the "prosodic weight" of the infinitive phrase/the rest of the clause. Together, these factors determine what could be called the *degree of integration* of the infinitive phrase into the clause. What does it mean for an infinitive phrase to be well integrated? On the one hand, the infinitive phrase is semantically and syntactically closely linked with its governor, which is the case, for instance, if the governor is a verb of particular type (the future auxiliary, a modal, etc.). On the other hand, the infinitive phrase is not prosodically independent from the rest of the clause, i.e., it does not bear its own prosodic contour and is not set off by a prosodic break; this happens, for example, if the infinitive phrase contains only an infinitive verb and clitics, which makes it prosodically light. Roughly speaking, a high degree of integration of the infinitive phrase into the clause results in the construction of a single clitic clus-

<sup>&</sup>lt;sup>2</sup> "Roughly speaking" because constituents of certain types do not qualify as hosts for the clitic cluster and some that do can be skipped, so that the cluster sometimes "lands" in a position further removed from the left edge of the clause (see Halpern 1995: 67ff and Milićević 2009a: 248ff).

ter comprising both the clause-level and the infinitive clitics. This happens of course in the situation of non-local placement but also in some instances of local placement.

The sentences in (1a) through (1d) below provide some preliminary examples (clitics are in boldface). The surface-syntactic governor of the infinitive verb ( $V_{INF}$ ) is boxed. The double vertical bar "||" symbolizes an optional prosodic break. The infinitive phrases are in square brackets "[...]". Clitics that may climb but do not have to are in angle brackets "<...>".<sup>3</sup>

While processing the examples, the reader should be aware of the following two facts:

- 1) Serbian auxiliary verbs are clausal heads (in the syntactic structure of the clause) independently of their tonicity status: clitic or full (i.e., stressed); see Milićević (1999). Negative forms of auxiliary verbs (nisam 'I am not', ne bih 'I would not', neću 'I will not', etc.) are always stressed.
- 2) Serbian is a pro-drop language: in communicatively neutral environments, the pronominal syntactic subject of the clause is elided on the surface (i.e., it does not have a phonetic realization but is present in the syntactic structure of the clause).
- (1) a. Ne moraš mi [ništa \*<mi> reći], svoju prošlost, not must to.me nothing to.tell your past, svoje ime... (Song Lyrics) your name

'You do not need to tell me anything, your past, your name ...'

b. Baš **bih** <**te**>  $\boxed{\text{volela}}$  || [videti <**te**> s | kratkom really | cond | you| so | to see | with short kosom].

'I would really like to see you with short hair.'

<sup>&</sup>lt;sup>3</sup> Sources of examples: *Korpus savremenog srpskog jezika* (Corpus of Contemporary Serbian), hereafter SerbCor (www.korpus.matf.bg.ac.rs), WWW, linguistic literature; two examples are taken from Nušić (1924); the remaining are my examples. When examples from a cited source include an alternative version, such as all four examples in (1), the judgment of the alternative version is my own. Most of the WWW and my examples have been checked with other native speakers who overwhelmingly corroborated my acceptability judgments.

(1) c. [Pohapsiti **bi ih**] <u>trebalo</u> \***<bi>**\***cond** them having been necessary (Adapted from Popović 1997: 350)

'Arrested is what they should be.'

d. [Tražiti **ga** \***je**> u mraku] **je** teško <|| teško **je**>. to.seek him is in darkness difficult (Adapted from Browne 1975: 275)

'Looking for him in the dark is difficult.'

In examples (1a–b), the infinitive phrase is not clause-initial, which represents the unmarked word order.  $V_{INF}$  functions as the object of a restructuring verb (see Section 2.1.2): a modal verb and an emotional-state verb, respectively. Non-local placement of the infinitive clitics, i.e., CPC, is obligatory in (1a), and optional in (1b). In the latter case, the accusative clitic te 'you $_{SG}$ ' may be placed locally if a prosodic break is made before the infinitive phrase, which is possible because of the prosodic heaviness (roughly, the number of syllables) of both the infinitive phrase and the rest of the clause.

In examples (1c–d), the infinitive phrase is clause-initial: this is the marked word order. In (1c),  $V_{INF}$  is the object of a restructuring verb. In (1d) it is the subject of the copula. In both cases, only local placement is available for the infinitive clitics, i.e., there is no CPC; clause level clitics must be placed together with the infinitive clitics in (1c), and separately in (1d). Moreover, in (1d), at least for some speakers, there is a preference for the clause-level clitic cluster to not follow the infinitive phrase immediately;<sup>4</sup> rather, the infinitive phrase is prosodically set off from the rest of the clause and skipped (cf. footnote 3), i.e., not counted as a possible host for the copula.

There are no semantic differences between sentences where the infinitive clitics are placed locally vs. non-locally, since clitics are not content words. There are no communicative differences either, because linear placement of the clitics, unlike that of full-fledged clause elements, is not flexible enough to be used as a means of expressing communicative distinctions. As for rhetorical (stylistic) differences, non-local vs. local placement of the infinitive clitics reflects style/register, as well as dialectal/idiolectal preferences.

Overall, CPC is not a prominent phenomenon in Serbian. On the one hand, it represents a "micro-variation" in word order, affecting a part of an already "closed system" that clitics represent. On the other hand, the frequency of CPC in texts must be rather low due to a restricted use of the infinitive in Serbian, which in most of its syntactic roles can be and preferably is replaced

<sup>&</sup>lt;sup>4</sup> Since a clitic cluster can be construed as a set of clitics and a set can consist of only one element, I will be freely speaking about clusters containing a single clitic, like the one in sentence (1d).

by the complement clause—a (finite) *da*-clause (*da* 'that' is a complementizer/conjunction).<sup>5</sup> Nevertheless, the phenomenon deserves attention from both a descriptive and a theoretical viewpoint: there are instances where the infinitive is used quite naturally in Serbian, and where, moreover, CPC of its clitics is obligatory; and CPC is interesting because its nature has not been fully explained.

Another sub-finite domain in which clitics can be placed is a phrase headed by a converb (a non-finite verb expressing relative tense: simultaneity or anteriority with respect to the MV). Converb phrase clitics do not exhibit CPC.

Finally, let us note that CPC out of complement *da*-clauses was marginally possible in older stages of the language but is virtually nonexistent in standard modern Serbian and will not be considered in this paper.<sup>6</sup>

Here are some examples of CPC out of complement clauses found in the linguistic literature. Grammaticality judgments are mine (in the original texts, sentences in (i-a) were judged in the same way, while the remaining two were evaluated as grammatical). I find (i-c), with a "partial CPC", severely ungrammatical.

vs.

Milan \* $\mathbf{ga}_i$  kaže [da  $\__i$  vidi].

'M. says that he sees him.'

b. To  ${}^{?}$ **mu**<sub>i</sub> ne želim [da \_\_i posudim]. (Aljović 2006: 1) this to.him not want that<sub>(CONJ)</sub> lend 'I do not want to lend this to him'.

c. Marija \* $\mathbf{mu}_i$  želi [da  $_{-i}$   $\mathbf{ga}$  predstavi]. M. to.him wants that $_{(CONI)}$  him introduces

'M. wants to introduce him to him.' (Stjepanović 1998, in Franks 2010: 21)

The contexts in which CPC out of *da*-clause is marginally possible (called *sub-junctive-like* in Progovac 1993) are the same ones where it can happen out of infinitive

 $<sup>^{5}</sup>$  On the use of infinitive in the Balkan Sprachbund, in particular in Serbian, see Mišeska-Tomić 2006.

<sup>&</sup>lt;sup>6</sup> In the linguistic literature there has been some controversy over the possibility of CPC out of a complement *da*-clause; see Jurkiewicz-Rohrbacher, Kolaković, and Hansen 2017a: 50 for an overview. My own intuition is that this variety of CPC is only marginally possible in some registers (journalistic, literary), and perhaps more common in Bosnian than Serbian. The marginality of the phenomenon seems to be corroborated in Jurkiewicz-Rohrbacher, Kolaković, and Hansen 2017b, where extremely low frequencies of CPC out of *da*-clauses were reported for a significantly large corpus of texts.

While publications on Serbian clitics (more generally, clitics in Bosnian, Croatian, and Serbian [BCS]) are plenty, CPC as such has received relatively little attention. A detailed, non-formal description of CPC in literary Serbo-Croatian is found in Popović 1997: 342–50. Browne's (1975 / 2004) seminal paper contains the first description of the phenomenon in standard Serbo-Croatian within the generative framework (273–76). Most of the subsequent work on CPC has also been done in phrase-structure based approaches to syntax. Discussion and examples of CPC in BCS are found, for instance, in Ćavar and Wilder 1999; Franks 2010; Bošković 2004, 2015; Progovac 2005: 146ff; Zimmerling 2011; Zimmerling and Kosta 2013. Papers focused on or fully dedicated to the topic include Stjepanović 2004, Caink 2004, Aljović 2006 and Jurkiewicz-Rohrbacher, Kolaković, and Hansen 2017a/b. As for dependency-oriented studies of BCS clitics *tout court*, I am aware only of Čamdžić and Hudson 2002 and Milićević 2009a, neither of which speaks about CPC at any length.<sup>7</sup>

phrases, namely the governor of the *da*-clause has to be a verb of particular type (a restructuring verb, as will be explained later), here *želeti* 'to want'. With a non-restructuring matrix verb, such as *kazati* 'to say', CPC is clearly unacceptable. Such verbs cannot take an infinitive phrase as a complement.

Examples of CPC out of *da*-clauses in literary Serbian, which sound dated to the contemporary ear, are given in (ii-a-b). Sentence (ii-c) is an example from the press and (ii-d) was spontaneously produced in a conversation I had with a speaker of Bosnian.

- (ii) a. Kad **bi**  $ga_i$  žena počela [...] [da  $_i$  teši] ... when cond him wife  $start_{PTCP}$  that  $_{(CONJ)}$  consoles 'When his wife would start to console him ...' (In Simić 1999: 341)
  - b. jer  $\mathbf{ga_i}$  njegova bivša supruga nije umela dovoljno for him his ex wife not.is  $know_{PTCP}$  enough

 $\begin{array}{cccc} [da & \__i & razume] & & (Nušić 1924: 2) \\ that_{(CONJ)} & & understands \end{array}$ 

'because his ex-wife was not quite able to understand him'

c. To  $im_i$  Vučić ne sme [da  $\__i$  dozvoli]. that to.them V. not may that  $_{(CONJ)}$  allows (In Jurkiewicz-Rohrbacher, Kolaković, and Hansen 2017a: 59)

'That is something V. should not allow them (to do).'

d. Sve  $\mathbf{ih}_i$   $\mathbf{je}$  htio [da  $_{-i}$  vidi]. (PC, non elicited) all them is  $want_{PTCP}$  that  $_{(CONJ)}$  sees 'He wanted to see all of them.'

Note the fronting of the direct object of the embedded finite verb in (i-b) and (ii-c) and of the quantifier in (ii-d). These may be factors that make CPC out of a *da*-clause somewhat more acceptable. Whether object/circumstantial extraction have the same effect on CPC out of the infinitive phrase remains to be determined.

<sup>&</sup>lt;sup>7</sup> For clitic (pseudo-)climbing in Slovenian, the only South Slavic language besides BCS that has it, see Golden 2003 and Marušič 2008. An overview of clitic (pseudo-)

I will propose sample linearization rules for infinitive clitics, in particular those covering CPC out of infinitive phrases. This will be done within a Meaning-Text dependency syntax approach (Mel'čuk 1988, 2013; Polguère and Mel'čuk 2009) and from the viewpoint of linguistic synthesis (= speech production, as opposed to analysis or speech comprehension).

The rest of the paper is structured as follows: Section 2 provides an informal description of the linearization of the infinitive clitics, Section 3 presents linearization rules for the infinitive clitics, and Section 4 concludes the paper.

Before we proceed, a word of caution is in order. Grammaticality judgment of sentences containing infinitive clitics is difficult. First, due to differences in the infinitive clitic placement across BCS and across different registers (journalistic, literary, spoken, etc.) to which most speakers are exposed (through media, etc.), contamination can happen quite easily. Second, the intuition of speakers of Serbian with regard to infinitive clitic placement may be further impaired by the fact, already mentioned, that in modern Serbian (in contrast especially to Croatian) the range of contexts in which the infinitive is used is more limited. These factors explain, at least to some extent, the disagreements, not infrequently found in the literature, about the acceptability of sentences containing, in particular, non-locally positioned infinitive clitics (cf. comments made to this effect in Jurkiewicz-Rohrbacher, Kolaković, and Hansen, 2017a: 50ff).

# 2. An Informal Description of the Linearization of Infinitive Clitics

We start by discussing the general lexical and syntactic conditions under which CPC out of infinitive phrases is possible—classes of lexemes that can govern a  $V_{INF}$  in the syntactic structure of the clause and syntactic roles that a  $V_{INF}$  can have (2.1). Then follows a description of specific factors governing non-local vs. local placement of infinitive clitics (2.2).

# 2.1. Governors and Syntactic Roles of V<sub>INF</sub>

Classes of lexemes that can govern a  $V_{INF}$  in Serbian and the corresponding syntactic roles of  $V_{INF}$  are summarized in Table 1 on the following page.

	Governor of V <sub>INF</sub>	Syntactic role of V <sub>INF</sub>
1.	hteti <sub>(AUX)FIN</sub> 'will'	Lexical Part of main verb
2.	Semantically full V	Object
3.	biti <sub>(COPULA/AUX)FIN</sub> 'to be'	Subject
4.	N/ADJ	Object
5.	biti <sub>(COPULA)</sub>	Copular attribute

**Table 1.** Governors of  $V_{INF}$  and syntactic roles of  $V_{INF}$ 

The verb governing the  $V_{INF}$  (numbers 1, 2, 3, and 5 in the table above), i.e., the (absolute) syntactic head of the clause, will be referred to as the main verb (MV). Thus, a MV can be an auxiliary verb, a copular verb, or a semantically full verb. (This departs from the usage in which *main verb* is synonymous with *lexical* or *semantically full verb*.)

## 2.1.1. $V_{INF}$ as the Lexical Part of MV in the Future Tense

In the future-tense forms, the infinitive is the lexical part of the main verb (not an object), and the main verb itself is a clitic. In this case, the infinitive clitics always form a single cluster with the clitic future marker and must be placed in the exact same way as the latter; this is shown in (2a).

- (2) a. (i) Nekako cu im se oduži+ti. somehow fut.1sg to.them Refl to.repay
  'I'll repay them (for their kindness) somehow.'
  - (ii) \*Nekako ću oduži+ti im se.
  - (iii) Oduži=**ću im se** nekako.

Compare (2a) with (2b), where *odužiti* (*se*) is the object of *morati*, and where the clitics of the former can be placed both locally and non-locally (in this particular context, because of the prosodic heaviness of the infinitive phrase).

(2) b. Mora==cu <im se> [nekako <im se> odužiti].

must FUT.1sg to.them REFL somehow to.repay

'I will have to repay them somehow (for their kindness).'8

In (2a-iii) and (2b) the infinitive suffix -ti of the verbs oduži+ti (se) and mora+ti is truncated before the future tense marker, which in this context behaves more like an affix than like a word form. In spite of appearances,  $\acute{c}u$  is the main verb (i.e., the syntactic

Due to a close semantic and syntactic link between  $V_{INF}$  and the future auxiliary, the infinitive is strongly integrated into the clause and not perceived as an independent clause element. This is corroborated by the fact that clauses where the infinitive as the lexical part of the MV occupies the initial position, as in (2a-iii), are less marked than those in which the infinitive phrase functioning as an object or the subject is clause-initial.

## 2.1.2. $V_{INF}$ as the Object of a Semantically Full Verb

Earlier we used the term restructuring verbs (Rizzi 1982; Monachesi 1998; Dobnik and Cooper 2016), familiar from the literature on clitic climbing in Romance languages, to characterize Serbian verbs that, as an alternative to a da-clause, take a  $V_{INF}$  as complement (direct, indirect, or oblique object). According to another well-known syntactic classification, these verbs fall into raising, subject-control, and object-control verbs (Nišida 2012; Jurkiewicz-Rohrbacher, Kolaković, and Hansen, 2017b). Semantically, restructuring verbs belong to several classes, as indicated in Table 2 on the following page (cf. Piper et al. 2005: 470ff; Mišeska-Tomić 2006: 414–16, 484–85; Mrazovac and Vukadinović 2009: 130ff).

I call *quasi-modals* the verbs which, like genuine modals, have a modal meaning and are semantically incomplete (i.e., require an infinitive or a clausal complement) but which, unlike the latter, are impersonal (i.e., have a 3p neuter syntactic subject that has no phonetic realization).

Causative and motion verbs can also take  $V_{INF}$  as an object; cf., respectively, Dao <ih>> je [zatvoriti <ih>] 'He had them put in jail' and Došao sam <te>|nešto <te>> pitati] 'I came to ask you something'. Such constructions are dated in Serbian and more representative of Croatian and Bosnian. As can be seen from the examples, both verb types allow for the CPC of the clitics depending on their infinitive complement.

 $V_{\mathit{INF}}$  is most naturally used as a complement of (quasi-)modal, phasic, and emotional state verbs. Its use with verbs from other classes, especially if they

head of its clause) and the future tense forms are analytic, just as those of the compound past or the conditional. (On the morphological status of future-tense markers in Serbian, see Milićević 2009b and references herein.)

<sup>&</sup>lt;sup>9</sup> The term was introduced to refer to verbs that behave as a class with respect to clitic climbing and some other phenomena, such as "long object preposing" and "unbounded tough movement". To account for their properties, it was suggested that these verbs undergo an optional restructuring rule that makes it possible to analyze the matrix verb and its embedded infinitive as a verbal complex, or as it is sometimes called, a complex predicate. I use the term only as a convenient label, since in the present framework it is not necessary to invoke any such rule in order to account for the corresponding facts.

Table 2. Serbian verbs which take an infinitive complement

Modal:	moći 'can', morati 'must', hteti 'will', smeti 'dare'	Raising Verbs	
Quasi-modal:	trebati <sub>V.IMPERS</sub> 'be necessary', valjati <sub>V.IMPERS</sub> 'be needed'		
Phasic:	početi/stati 'start', nastaviti 'continue', prestati 'stop'		
<b>Emotional state:</b>	voleti 'like', želeti 'want', bojati se 'fear',	Subject Control	
Mental state/act:	<i>mrzeti<sub>V.IMPERS</sub></i> 'be hateful to'	Verbs	
	nameravati 'intend', umeti 'know how', običavati 'have habit', zaboraviti 'forget', odlučiti 'decide'		
(Speech) act:	obećati 'promise', usuditi se 'dare', odvažiti se 'venture', nastojati 'strive', pokušati 'try', uspeti 'succeed'		
	narediti 'direct', zabraniti 'forbid', zamoliti 'ask'; dozvoliti 'allow', pustiti 'let', naterati 'force', primorati 'compel'; pomoći 'help'	Object Control Verbs	

are object control verbs, has a "Croatian feel" and *da*-complementation is generally preferred.

In the remainder of this section, only the unmarked word-order situations are considered, i.e., those in which the infinitive phrase is not clauseinitial and both non-local and local placement options are in principle available for the infinitive clitics.

Without prosodic factors intervening, CPC out of the infinitive complements of most restructuring verbs is obligatory. This is especially true for modal and phasic verbs—understandably enough, since they are more closely related to their governor and similar in this respect to auxiliary verbs. However, even with these verbs, prosodic factors may allow for the local placement of infinitive clitics.

Examples in (3) illustrate CPC out of infinitive phrases governed by (quasi-)modal, phasic, and emotional-state verbs: CPC is obligatory in (3a–b) and optional in the remaining examples, which feature prosodically heavy infinitive phrases. Notice in particular the contrast between (3b) and (3d), where with the same verb governing  $V_{INF}$ , different linear placing requirements hold for the infinitive clitics.

(3) a. Ekstra kvalitetom <se> mogu <se> [pohvaliti \*<se>] i
with extra quality REFL can boast and
pekare ... (SerbCor)
bakeries

'Extraordinary quality can be boasted as well by the bakeries ...'

- Nisam <vam> to smeo [reći \*<vam>]! (SerbCor) not.am to.you<sub>PL</sub> that<sub>(PRON)</sub> dare<sub>PTCP</sub> to.tell
   'I shouldn't have told you that!'
- c. ... Buskeros <se> ponovo poče [smejati <se> kao lud]. ... B. REFL again started to.laugh like crazy '... B. started laughing his head off again.'
- d. ... a poreznici <mu> ne bi smeli [suviše and tax collectors to.him not cond dare\_PTCP too.much <mu> dosađivati]. (SerbCor) to bother
  - '... and tax collectors shouldn't be bothering him too much.'
- e. ... treba <je> samo [umeti <je> [pročitati ²<je>]] is.necessary it<sub>FEM</sub> only to.know to.read (SerbCor) 'it is only necessary to know how to read it' (je refers to book, a feminine noun.)

The verb governing  $V_{INF}$  can be finite, as in (3a) and (3c), or non-finite: a participle ((3b) and (3d)) or another infinitive (3e). While there is no theoretical limit to the number of stacked infinitives, in practice, having more than two is unusual. Note the multiple landing sites for the clitics in (3a) and (3e).

Instances where CPC out of infinitive phrases embedded under restructuring verbs is problematic or blocked seem to involve specific reflexive verbs; cf.:

Such a sentence is possible in Serbian, as well, but it would not be produced spontaneously. For some corpus examples of stacked infinitives in BCS, see Hansen, Kolaković, and Jurkiewicz-Rohrbacher 2018.

<sup>&</sup>lt;sup>10</sup> Cf. the following constructed example from Slovenian (Marušič 2008), with three embedded infinitives:

<sup>(</sup>i) On  $\langle jo \rangle$  je hotel  $\langle jo \rangle$  [nehati  $\langle jo \rangle$  [hoteti [videvati  $\langle jo \rangle$  he her is want $_{PTCP}$  to.not.want to.see vsak dan]]]. every day

<sup>&#</sup>x27;He wanted to not want to want to see her every day.'

- (4) a. (i) Nisam <sup>?</sup>mu se se bojao not.am to.him REFL REFL fear<sub>(V.REFL)PTCP</sub>

  [suprotstaviti]. (Adapted from Popović 1997: 345) to.oppose<sub>V.REFL</sub>

  'I wasn't afraid to oppose him.'
  - (ii) Nisam **se** bojao [suprotstaviti **mu se**].
  - b. (i) ... jer **me** \*se **je** mrzelo [oblačiti] for me REFL is having.been.hateful to.dress<sub>(V.REFL)</sub> (Adapted from Popović 1997: 345)
    - '... for I didn't feel like dressing'
    - (ii) ... jer **me je** mrzelo [oblačiti **se**]
  - c. Pomozi **mi** ?<**se**> [setiti <**se**>]. help to.me REFL to.recall<sub>(V.REFL)</sub>
    'Help me to recall (something to memory).'
  - d. Starica **mi** \*<se> pomogne || [uzdići <se> old.woman to.me REFL helped to.stand.up<sub>(V.REFL)</sub>

    na noge]. (Popović 1997: 345)

    on feet

'The old woman helped me get back on my feet.'11

The ban on CPC holds in the context of two subject-control verbs (4a–b), an object-control verb (4c–d), and regardless of prosodic factors ((4c) vs. (4d)). This makes me think that the culprit is the reflexive nature of the verbs involved. If this is correct, then all such verbs need to be explicitly marked as not allowing for the CPC of their clitics in this specific syntactic environment. For cases where CPC needs to be precluded because it results in undesirable or unacceptable clitic combinations, see 2.2.3 below.

# 2.1.3. V<sub>INF</sub> as the Subject of a Finite Copula or Auxiliary Verb

In (5a), the infinitive is the syntactic subject of the copula, while in (5b) it functions as the subject of the auxiliary *biti* 'to be' forming the compound past with the copula. (The role of the copular attribute is filled by the adjective *zanimljivo* 'interesting' in (5a) and the noun *žalost* 'sorrow' in (5b).)

<sup>&</sup>lt;sup>11</sup> In (4a), both the  $V_{INF}$  and the governing verbs are reflexive; in other examples in (4), only the  $V_{INF}$  is. Note the haplology of one SE in (4a-i) and the deletion of je from the sequence \*[se je] in (4b-i), virtually obligatory in Serbian (see Footnotes 16 and 17).

(5) a. (Emisije radi profesionalno) i zanimljivo <ih>
(He creates the programs like a pro) and interesting them

je [pratiti <ih>]. (WWW)

is to.follow

'and it is interesting to follow them.'

b. (ali je taj globus izgledao tako bedno) da <ga> je žalost (but that globe looked so shabby) that it is sorrow
bila [pogledati <ga>]. (Nušić 1924: 22) be<sub>(V.COP)PTCP</sub> to.see

'that it made one said just to look at it.'

Since a  $V_{INF}$  functioning as the subject is easy to set off prosodically from the rest of the clause, its clitics can be placed either non-locally or locally. (But if this per se legitimate non-local placement results in unacceptable clitic combinations, it must be prevented; see 2.2.3 below.)

## 2.1.4. $V_{INF}$ as the Oblique Object of N/ADJ

A small number of nouns, such as *želja* 'wish', *volja* will', *namera* 'intention', *smisao* 'purpose', and *razlog* 'reason', take V<sub>INF</sub> as an oblique object; see (6a).<sup>12</sup>

Adjectives taking  $V_{INF}$  as an oblique object mostly denote physical and mental dispositions, for example, *kadar* 'able', *sposoban* 'capable', *voljan* 'willing', *raspoložen* 'disposed', *gotov* 'decided', *spreman* 'ready', *rad* 'eager', *oran* 'enthusiastic', *dužan* 'bound', *nameran* 'intent (on)', *saglasan* 'agreeing'; see (6b).

(6) a. (i) Nemam <se> nameru [ni sa kim not.have REFL intention not with anyone <se> prepucavati]. (WWW) to.argue
'I have no intention to argue with anyone.'

(ii) ... a ima <**je**> [želju] [pročitati <**je**>]. and has it<sub>FEM</sub> desire to.read'

'... and he would like to read it.'

<sup>&</sup>lt;sup>12</sup> Interestingly, this happens only when these nouns are embedded under *imati* 'to have'/*nemati* 'to not have'; cf.: *Ima/Nema nameru otići* <*da ode>* '[S/he] has intention to.leave <that [s/he] leaves>' vs. *Njegova namera \*otići* <*da ode> nije mi poznata* 'His intention to.leave <that [he] leaves> not.is to.me known'. (More generally, the infinitive complementation is possible only when the governing noun is found in a collocation with a light/realization verb. I am grateful to Wayles Browne (p.c.) for pointing this out.)

- (6) b. (i) Željni smo <ih> i mi [videti <ih>]. (WWW) desirous are them and we to see 'We too would like to see them.'
  - (ii) Nisam <ga> sposoban [rešiti <ga>]. not.am it able to.solve

'I am not able to solve it.'

Constructions of this type are not widely used in Serbian (in these contexts, a da-clause is much preferred over a  $V_{INF}$ ). Both non-local and local placement of the infinitive clitics is possible.

## 2.1.5. $V_{INF}$ as the Copular Attribute

(7) [Voleti svoje susede] jeste (isto što i) [pomagati im to.love one's neighbors is<sub>(V.COP)FULL</sub> (the same as) to.help them kad zatreba]. when need.arises

'To love one's neighbors is to help them in need.'

In (7), the infinitive phrase headed by *pomagati* 'help<sub>INF</sub>' appears as the attribute of the copula *biti* 'be<sub>INF</sub>'; this is a minor  $V_{INF}$  syntactic role, as the corresponding construction is rarely used. The clitics of an infinitive functioning as the copular attribute are always placed locally.<sup>13</sup>

#### 2.2. Factors Relevant for the Linear Placement of the Infinitive Clitics

As we have already seen, both syntactic and prosodic factors influence the linear placement of the infinitive clitics. In addition, the number/type of clause-level and infinitive clitics involved may act as a constraining factor for non-local placement.

<sup>&</sup>lt;sup>13</sup> In a synonymous (and more frequently used) construction involving the verb *značiti* 'to mean', where the infinitive appears in the role of object, the infinitive clitics must also be placed locally (understandably enough, since this verb does not belong to the class of restructuring verbs, indicated in Table 2 above, with which non-local placement is in principle allowed). This fact was mentioned (in a different context) in Browne 1987: 171.

# 2.2.1. Linear Position of the Infinitive Phrase and Syntactic Role of $V_{INF}$

The possibility of non-local placement of infinitive clitics is determined by the linear position of the infinitive phrase within the clause: clitics can undergo CPC only out of non-clause-initial infinitive phrases. (This is why the non-local placement of infinitive clitics is called *anticipatory* in Popović 1997: 338.) When the infinitive phrase is clause-initial, CPC is blocked altogether.

Possibilities of CPC out of non-clause-initial infinitive phases are determined in large part as a function of the syntactic role of the  $V_{INF}$ . Thus, clitics of a  $V_{INF}$  that is the lexical part of the main verb in the future tense can only be placed non-locally. If  $V_{INF}$  is the attribute of the copula, its clitics are always placed locally. And if  $V_{INF}$  appears as the subject of the clause, both non-local and local placement is available for its clitics.

#### 2.2.2. Prosodic Features of Clause Elements

Prosodic factors play an important role in allowing for optional CPC or making it preferable. They are especially important for configurations in which  $V_{INF}$  is the object of a semantically full verb. If the infinitive phrase constitutes an intonational phrase (because it is heavy) and a prosodic break can be made before it, local placement of the infinitive clitics becomes possible. This is why with the same verb there can be different CPC options as a function of prosody. Compare (8a–b) with (1b), repeated here as (8c):

- (8) a. Baš **bih te** volela [videti]. really cond you<sub>SG</sub> like<sub>PTCP</sub> to see 'I would really like to see you.'
  - b. Baš **bih** volela || [videti **?te**].

The same phenomenon is illustrated by the following example (sentences (9a–c) repeat (3e) from above):

- (9) a. Treba **je** samo <u>umeti</u> pročitati. is.necessary it<sub>FEM</sub> only to.know to.read 'It is only necessary to know how to read it.'
  - b. Treba samo || [umeti] je [pročitati]]. is.necessary only to.know it<sub>FEM</sub> to.read

(9) c. Treba samo [umeti] [pročitati ²je]]. is.necessary only to.know to.read it<sub>FEM</sub>
 d. Treba samo [umeti] [pročitati je na pravi način]]. in proper manner

The dubious acceptability of sentences (8b) and (9c) may be also due to the Final Position Effect (Milićević 2009a: 250–51). While generally speaking clitics tend to stay away from the right edge of the clause, this is not an absolute requirement, and the clitics in (11) below are perfectly fine sitting in the clause-final position.

Thus CPC correlates with a high level of semantic, syntactic, and prosodic integration of the infinitive phrase into the clause; cf. Popović 1997: 345ff "[in the situations of non-local placement] the infinitive is informationally closely linked to the [main] verb and carries the same sentential stress", and "[in local placement] the infinitive phrase [appears] as an informational and articulatory unit".

Table 3 below summarizes the linear placement possibilities existing for the infinitive clitics.

	CPC of the clitics of V <sub>INF</sub>		
Syntactic Role of $V_{INF}$	Inf. Phrase NOT Clause-Initial [the unmarked case]	Inf. Phrase Clause-Initial	
1. Lexical Part of MV	100% OBLIGATORY		
2. Object of V	OBLIGATORY or OPTIONAL	DI OCUED	
3. Subject of V	OPTIONAL	BLOCKED	
4. Object of N/ADJ	OPTIONAL		
5. Copular Attribute	100% BLOCKED	N/A <sup>14</sup>	

**Table 3.** CPC options available to infinitive clitics

# 2.2.3. Type and Number of Clitics Involved

Optional CPC out of any of the configurations indicated in Table 3 can be precluded for specific clitic combinations if these violate constraints on the constitution of the clitic cluster. Some of the constraints arise only for mixed

<sup>&</sup>lt;sup>14</sup> N/A because a copular attribute is never clause-initial.

clusters (e.g., ambiguity/high number of clitics; case incompatibility), and some are independent of CPC (e.g., person-case constraint). They are modeled as filter rules, some of which are presented in this section (2.2.3.1 through 2.2.3.4) and in 3.2.3 below.

As mentioned earlier, some constraints on CPC arise for specific verbs, which need to be marked accordingly in the lexicon; cf. example (4) above and the related remarks.

## 2.2.3.1. CPC Resulting in Ambiguity

(10) Ne vredi <u>mu</u> ga [prodavati]. not is.worth to.him it to.sell

The indirect object clitic mu in (10) can be interpreted as depending on the MV [vredi-indir.objectival $\rightarrow mu$ ] or as depending on the  $V_{INF}$  ([prodavati-indir. objectival $\rightarrow mu$ ]); as a result, (10) is ambiguous between 'It is not worthwhile for him to sell it (to someone)' and 'It is not worthwhile (for someone) to sell it to him'. To avoid ambiguity, either the infinitive clitics need to be placed locally ( $Ne\ vredi\ mu\ [prodavati\ ga]\ vs.\ Ne\ vredi\ [prodavati\ mu\ ga]$ ). Better still, a different wording should be used, with a da-clause instead of the infinitive phrase in the first case, and the full form of the pronoun in the second ( $Ne\ vredi\ mu\ [da\ ga\ prodaje]\ vs.\ Ne\ vredi\ sga> [njemu\ sga> prodavati]$ ).

# 2.2.3.2. CPC Resulting in a High Number of Clitics

(11) a. Ko **li bi** <**nas ga> se** usudio [lišiti who interr cond us him refl dare<sub>PTCP</sub> to.deprive <**nas ga>**]?

'Who, I wonder, would dare to deprive us of it?'

b. (i) Bila  $\mathbf{ga}$   $\mathbf{je}$  čast [poznavati  $<\mathbf{ga}>$ ].  $\mathbf{be}_{PTCP}$  him is honor to.know

'It was an honor to know him.'

- (ii) Bila **mi** ??<**ga>je** čast [poznavati <**ga>**].
- c. Nepravedno/ Nepravda <im ih> je [nametati ²<im ih>]. unjust/ injustice to.them them is to.impose 'It is unjust/It is an injustice to impose them (e.g., 'these conditions') on them.'

The number of clitics seems to be less of a factor when  $V_{INF}$  is a verbal complement, as in (11a), which is fine both with the CPC of the infinitive clitics (resulting in a cluster of five clitics) and without it. With the  $V_{INF}$  as the subject, however, in situ placement of its clitics is preferable, at least in some cases, as in (11b–c).

## 2.2.3.3. CPC Resulting in Case and Case-Person Incompatibilities

### (12) a. \*[DAT+DAT]

Nemoguće **mi** \*<**mu**> **je** [to <**mu**> objasniti]. impossible to.me to.him is that<sub>(PRON)</sub> to.explain 'It is impossible for me to explain that to him'.

### b. \*[ACC+ACC]

Sramota **me** \*<**ga> je** [lagati <**ga>**]. shame me him is to.lie

'I am ashamed to lie to him.'

### c. \*[DAT+ACC(1/2P)]

Čast \*/?[mi <vas>] je [pozvati <vas>]. honor to.me you<sub>PL</sub> is to.invite

'It is an honor for me to invite you.'

(Title of a Yugoslav talk show from the 1980-ies)

In the situations illustrated in (12a–b), CPC is outright ungrammatical. In those exemplified in (12c), it may be marginally acceptable to some speakers. <sup>15</sup>

This particular example would not sound that awful in Croatian, either: (ii) *ali* uvek nas ga je terala jesti.

Franks 2010: 134 gives a grammatical Polish example with the order ACC+DAT (while the normal order is DAT+ACC).

(ii) Nauczyłeś go mi<sub>i</sub> [pomagać \_\_i] taught him<sub>ACC</sub> me<sub>DAT</sub> to help
'You taught him to help me.'

VS.

<sup>&</sup>lt;sup>15</sup> It seems that in clitic pseudo-climbing environments two accusative clitics are allowed in Czech (Dotlačil 2007):

<sup>(</sup>i) *ale stále* nás ho<sub>i</sub> *nutila* [*jíst* \_\_\_i] but always us<sub>ACC</sub> it<sub>ACC</sub> forced to.eat 'But she always forced us to eat it.'

<sup>\*</sup>Nauczyłeś mi; go [pomagać \_\_i].

## 2.2.3.4. CPC Resulting in the Sequence \*[se je]

- (13) a. Ružno/ Sramota \*<se> je [svađati <se>].
  ugly/ shame REFL is<sub>(V.COP)</sub> to.quarrel
  'It is ugly/It is a shame to quarrel.'
  - b. Ne prašta nikome ko <mu se> se |je| not forgives no.one who to.him |e| Refl |e| is |e| usudio [suprotstaviti <mu se>]. dare |e| to.oppose

'He does not forgive anyone who dared to oppose him'.

In sentence (13a), the CPC of the reflexive marker results in the illegitimate and "irreparable" sequence \*[se  $je_{(V.COP)}$ ]. The sequence \*[se  $je_{(V.AUX)}$ ], however, can be repaired, because, unlike the copula, the auxiliary can be deleted; this is shown in (13b), which also illustrates the haplology of one of the two instances of the reflexive marker in the situation of non-local placement. (See examples (4b-i) and (4b-ii), as well.)<sup>17</sup>

Note finally that these may not be all the factors relevant for infinitive clitic placement. Thus, for instance, it seems that even word order within the infinitive phrase plays a role: Compared to *Buskeros ponovo poče* [smejati se kao lud] 'B. started laughing his head off again.' (example (3c) above), the variant *Buskeros ponovo poče* [kao lud se smejati] sounds more natural. However, I will not pursue this point further.

<sup>(</sup>An analogous example would not be correct in Serbian, unless the dative clitic is an Ethical Dative.) This indicates that some "normal" clitic cluster building rules may be transgressed when mixed clusters are constructed.

<sup>&</sup>lt;sup>16</sup> While some Serbian speakers may tolerate the [**se je**] sequence (I thank a reviewer for pointing out to me some corpus data attesting to this), my feeling is that standard Serbian has a strong preference for avoiding it; perhaps the constraint is not that strict in the older language or in some contemporary regional variants. In Croatian, however, this clitic sequence is normal; cf. the following example, found on WWW: *Ružno* se je *osjećati bespomoćno/prejesti* (lit. ugly REFL is to.feel helpless/to.overeat) 'It is ugly to feel helpless/to overeat.'

<sup>&</sup>lt;sup>17</sup> A \*[se je] sequence can of course arise independently of CPC; e.g., with a reflexive verb in the past tense: Setio \*[se je<sub>V.AUX</sub>] (lit. [He] having.remembered REFL is) 'He remembered.' ( $\Rightarrow$  Setio se). For more on this and other constraints on the co-occurrence of Serbian clitics, see Milićević 2007.

# 3. Linearization of the Infinitive Clitics in a Dependency-Based Approach to Syntax

First the theoretical framework is briefly presented (3.1), followed by sample infinitive clitic linearization rules (3.2).

#### 3.1. Theoretical Framework

Within a Meaning-Text model of language L, a functional, stratification model making use of dependency-based linguistic representations, CPC is viewed as a particular case of linearization of clitic lexemes (the latter being itself a particular case of linearization of lexemes—full and clitic).<sup>18</sup>

The operation of linearization takes place in the transition between the Surface-Syntactic Representation (SSyntR), whose basic structure (SSyntS) is a linearly unordered dependency tree made up of surface lexemes subscripted with semantically full inflectional values and linked by binary surface-syntactic relations, and the Deep-Morphological Representation (DMorphR), its basic structure (DMorphS) being a fully ordered string of lexemes subscripted with all (semantically full and syntactically induced) inflectional values. Prosodic features are modeled, for a given clause, by the prosodic structures, superimposed on the basic representations of the two levels.

Cliticization, i.e., the marking of lexemes for the inflectional value CLIT (as opposed to FULL), is performed in the SSyntR ⇒ DMorphR transition. The actual production of clitic forms takes place at a later stage of the synthesis. (In other words, only the "sources" of clitics appear in the two structures.) In most cases, the communicatively unmarked auxiliaries and personal pronouns end up in the clitic form; i.e., CLIT is the default value of the inflectional category of tonicity.

The sources of clitics appear in the SSynt roles shown in Table 4 on the following page. As we can see, 2P clitics depend on different governors or are governors themselves; yet they are linearly positioned together with respect to a common host. That is, they do not behave like normal word forms, which are linearly positioned with respect to their SSynt-governors.

Since the SSynt-governor of a 2P clitic and its host are in principle distinct (although they may, of course, coincide), whether an infinitive clitic is placed locally or non-locally is not in any way reflective of the syntactic structure of the clause, which is the same in both cases. Thus with 2P clitics there is no genuine climbing and their local vs. non-local placement is strictly a linearization problem. In contrast, the SSynt-governor of an ad-verbal clitic of Romance type and its host always coincide, i.e., ad-verbal clitics are governed by the

<sup>&</sup>lt;sup>18</sup> Recall that we are adopting the viewpoint of synthesis (speech production), rather than that of analysis (speech understanding).

L <sub>V.AUX(FIN)</sub>	top-node of the SSynt-tree,
. ,	i.e., the head of the
	corresponding clause
$L_{PRON, CASE = GEN < DAT, ACC}$	object of $L_{V,LEX}$ , $L_N$ or $L_{ADJ}$
SE	adjunct of $L_{V,LEX}$
$\mathrm{LI}_{INTERR}$	adjunct of $L_V$
$\mathrm{LI}_{EMPHAT}$	adjunct of the lexeme L on
	which it bears semantically

**Table 4.** Surface-Syntactic roles of Serbian clitics

verb and linearly positioned with respect to it. Therefore, to be non-locally positioned an ad-verbal clitic has to be made dependent on a different governor "higher" in the syntactic tree, and this can be metaphorically described as climbing. As a result, SSyntS of clauses featuring locally vs. non-locally positioned ad-verbal clitics are different.

The Serbian sentences in (14) have the same underlying SSyntS, shown in Figure 1; their DMorhpSs are given in Figure 2 on the following page.

- (14) a. Tek **ga je** tada počeo [istinski uvažavati]. only him is then  $start_{PTCP}$  truly to appreciate 'Only then did he start truly to appreciate him.'
  - b. Tek tada ga je počeo [istinski uvažavati].
  - c. Tek **je** tada počeo [istinski **ga** uvažavati].
  - d. Tek tada **je** počeo [istinski **ga** uvažavati].

In (14a–b), the pronominal clitic ga is positioned non-locally (i.e., it pseudoclimbs); it forms a common cluster with the auxiliary clitic je, which is inserted into the first constituent of the DMorphS in (14a) and placed after this constituent in (14b).

In (14c–d), the infinitive clitic is positioned locally (i.e., does not pseudoclimb); it forms a cluster of its own, which sits in 2P of the infinitive phrase. The clause-level cluster consisting only of the auxiliary clitic is inserted into the first constituent of the DMorphS in (14c) and placed after this constituent in (14d).

Compare this situation with the genuine clitic climbing, as in the following Spanish example:



**Figure 1.** Common SSyntS of sentences (14a–d)

- (15) a. Quiero poder encontrar<sub>GOVERNOR&HOST</sub>==1**o**. '[I]want to.be.able to.meet him'.
  - b. Quiero poder<sub>GOVERNOR&HOST</sub>==**lo** encontrar.
  - c.  $Lo==quiero_{GOVERNOR&HOST}$  poder encontrar.

Here a change of SSynt-governor must take place for the clitic *lo* to be able to change the host; the sentences in (15) correspond to three distinct SSyntSs (and of course three distinct DMorhpSs).

To sum up, no syntactic rule is necessary to account for CPC of 2P clitics in Serbian and other languages featuring this type of clitics; it is taken care of by a subset of clitic linearization rules.

- (14a) [TEK **ON**<sub>SG.MASC, IND, CL, 3SG</sub> **BITI**<sub>PRES, IND, CL, 3SG</sub> TADA] [POČEO<sub>PART, SG, MASC</sub>] || [ISTINSKI UVAŽAVATI<sub>INIE</sub>]
- (14b) [TEK TADA] **ON**<sub>SG.MASC, IND, CL, 3SG</sub> **BITI**<sub>PRES, IND, CL, 3SG</sub> [POČEO<sub>PART, SG, MASC</sub>] || [ISTINSKI UVAŽAVATI<sub>INF</sub>]
- (14c) [TEK  $\textbf{BITI}_{\text{PRES, IND, CL, 3SG}}$  TADA POČEO\_{PART, SG, MASC}] || [ISTINSKI  $\textbf{ON}_{\text{SG.MASC, IND, CL, 3SG}}$  UVAŽAVATI\_{INF}]
- (14d) [TEK TADA  $BITI_{PRES, IND, CL, 3SG}$  POČEO<sub>PART, SG, MASC</sub>] || [ISTINSKI  $ON_{SG,MASC, IND, CL, 3SG}$  UVAŽAVATI<sub>INF</sub>]

**Figure 2.** DMorphSs of sentences (14a–d)

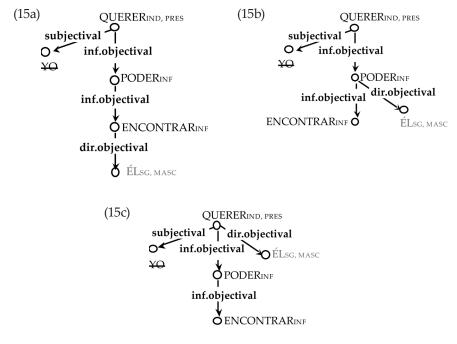


Figure 3. SSyntSs of sentences (15)

# 3.2. Sample Rules for the Linear Placement of the Infinitive Clitics

The following rules are needed to account for the linear placement of the infinitive clitics within the clause:

- (1) Rules specifying the basic linear placement options for the infinitive clitics.
- (2) Preference rules for the cases where both placement options apply.
- (3) Filter rules, specifying the clitic sequences to be avoided when mixed clitic clusters are constructed.

Only the rules of the first type will be fully presented below. For the two other rule types sample rules will be sketched.

# 3.2.1. Rules Specifying the Basic Linear Placement Options for the Infinitive Clitics

The rules are of the form "if X, then Y". (This, again, is strikingly different from the linearization rules for normal words, which have in their left-

hand part a surface-syntactic subtree and in their right-hand side, a deepmorphological string.)

A RULES: OBLIGATORY NON-LOCAL PLACEMENT [= CPC obligatory]

- [A.1] Non-local placement of the infinitive clitics is OBLIGATORY if:
  - a)  $V_{\mathit{INF}}$  = Lexical Part of MV in the future tense OR
  - b) 1. The infinitive phrase is NOT clause initial and it is NOT heavy AND
    - 2.  $V_{INF}$  = Object of V | V is not lexically marked as not admitting CPC out of its inf. complement
- [A.2] A single clitic cluster is constructed.

Examples: (2a) for A.1a; (1a), (3a–b) for A.1b; with  $V_{INF}$  lexically marked: (4)

## B RULES: OPTIONAL LOCAL PLACEMENT

[= CPC optional]

- [B.1] Local placement of the infinitive clitics is OPTIONAL if:
  - a) 1. The infinitive phrase is NOT clause initial & it is heavy 2.  $V_{INF}$  = Object of V

OR

- b) 1. The infinitive phrase is NOT clause initial AND
  - 2.  $V_{INF}$  = Subject of V or Object of N/ADJ
- [B.2] Two separate clitic clusters are constructed. Examples: (1b), (2b), (3c–e) for B.1a; (5–6) for B.1b.

#### C RULES: OBLIGATORY LOCAL PLACEMENT

[= CPC blocked]

- [C.1] Local placement of the infinitive clitics is OBLIGATORY if:
  - a) The infinitive phrase is clause initial

OR

- b)  $V_{INF} = Copular Attribute$
- [C.2] a) A single clitic cluster is constructed if  $V_{INF}$  = Object of V.
- b) Two separate clitic clusters are constructed if  $V_{INF} \neq Object$  of V. Examples: (1c) for C.2a; (1d) and (7) for C.2b.

All clusters are constructed according to the same cluster-building rules (Milićević 2009a: 264). Special filters apply to mixed clusters—to make sure that no ungrammatical or otherwise unacceptable clitic sequences occur; see 3.2.3.

All clusters are linearly placed (into the partial DMorphS of the clause (a fully ordered sequence of full-fledged clause elements) according to the same rules: 2P placement, skipping, insertion (Milićević 2009a: 267–69). Clause-initial infinitive phrases are subject to specific skipping rules; see 3.2.2.

#### 3.2.2. Preference Rules

Only linguistic preferences proper, arising as a function of syntactic context, are considered here. Stylistic preferences (linked to the style/register) as well as sociolinguistic ones (dialectal/idiolectal) are not commented upon.

The heavier the infinitive phrase (and/or the rest of the clause), the more acceptable the local placement under rule B.1a.

In situations covered by rule B.1b, no inherent preferences exist. Local placement is preferred it if helps avoid non-desired consequences of non-local placement: ambiguity or cumbersome mixed clusters (with more than 2 clitics).

In situations covered by rule C.2b, the clause-initial infinitive phrase is preferably skipped, especially if it contains non-clitic elements, i.e., the clause-level cluster preferably does not immediately follow the infinitive phrase. Instead, a prosodic break is made and the clitic cluster put in the 2P of the rest of the clause; a resumptive  $to_{PRON}$  'that' is sometimes inserted; see (16a). However, immediate post-position of the clause-level clitic cluster consisting only of the copula is tolerated in some contexts; see (16b–c).

- (16) a. [Tražiti **ga** u mraku] || teško **je** <|| to **je** teško> to.seek him in darkness difficult is that is difficult 'Looking for him in the dark is difficult <, that is difficult>.'
  - b. [Tražiti ga] je teško.
     to.seek him is difficult
     'Looking for him is difficult.'
  - c. [Približiti se stražaru] je zabranjeno. (Popović 1997: 351) to.approach REFL to guard is forbidden 'Approaching the guard is forbidden.'

#### 3.2.3. Filter Rules

These rules identify the ungrammatical clitic sequences in mixed clusters: identical cases (ex. (12a–b) above); person-case incompatibility (ex. (12c)); \*[se je<sub>V.COP/AUX</sub>] sequence (ex. (13a)); \*[se se] sequence (ex. (13b)).

Let us show how these rules work on sentences from (14) above, whose partial DMorphSs is shown in Figure 4 on the following page.

The infinitive phrase *istinski uvažavati*<sub>INF</sub> is not clause-initial, is heavy, and may be preceded by a prosodic break. This makes it possible to apply rules B.1a, allowing for the optional local placement of the infinitive clitic.

The non-local placement option is chosen in (14a–b), and the local placement option in (14c–d). In the first case, the mixed clitic cluster is constructed.

Full-fledged sentence elements

[TEK TADA]<sub>+insert</sub> [POČEO<sub>PART, SG, MASC</sub>] || [ISTINSKI UVAŽAVATI<sub>INF</sub>]<sub>+heavy</sub>

Clitic cluster(s)

For non-local placement

[ON<sub>SG.MASC, IND, CL, 3SG</sub> BITI<sub>PRES, IND, CL, 3SG</sub>]CL.CLUSTER-1, MIXED

For local placement

 $[ON_{SG.MASC,\,IND,\,CL,\,3SG}]$ CL.CLUSTER-2, INF

[BITI<sub>PRES, IND, CL, 3SG</sub>]CL.CLUSTER-3, CLAUSAL

Figure 4. Partial DMorphSs for the construction of sentences (14)

It is placed after the first constituent of the clause in (14a) and inserted into that constituent in (14b);. This operation is taken care of by the rules handling all clusters (whether mixed or not). In the second case, two clitic clusters are constructed, the infinitive phrase and the clausal-level one, and each is placed in the 2P of the corresponding domain.

There are no constraints on and no obvious linguistic context-induced preferences for any of the linear arrangements illustrated in (14).

#### 4. Conclusion

The paper examined, from a dependency-syntax vantage point, the linear placement options available for clitic dependents of infinitive complements in Serbian. It focused in particular on the non-local placement option, i.e., linear positioning of the infinitive clitics outside of the infinitive phrase, commonly referred to as clitic climbing. It was shown that, unlike an ad-verbal clitic, a 2P clitic does not need to change its syntactic governor in order to be positioned non-locally, i.e., that it does not undergo genuine clitic climbing. This is because the syntactic governor of a 2P clitic (in the linearly non-ordered dependency structure of the clause) and its host (in the fully ordered morphological structure) are in principle distinct, while in the case of an ad-verbal clitic they necessarily concide. Therefore, a non-locally positioned 2P clitic can only be said to display climbing effects, or to pseudo-climb.

The paper offered a mixed account of the linear placement of Serbian infinitive clitics, acknowledging the importance of both syntactic and prosodic factors. These findings are in line with the conclusions in Milićević (2009a) describing Serbian 2P clitic placement in general, although they point to a somewhat more important role of prosody than previously assumed.

## Acknowledgments

My heartfelt thanks go to Wayles Browne and Igor Mel'čuk for their comments on a prefinal version of this paper, as well as to my BCS speaking friends for their help with judging the acceptability of some difficult examples. Thanks are also due to two reviewers, whose remarks helped me improve some aspects of the paper.

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