

# The Diachrony of Subjunctive-Infinitive Competition in Balkan Slavic Typological vs. Sprachbund Phenomena

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**Abstract** The paper analyses the phenomenon of infinitive loss in Balkan Slavic in the context of the broader cross-linguistic process of subjunctive-infinitive competition (SIC). I adopt a diachronic perspective, analysing the historical developments pertaining to SIC in languages ranging from Old Church Slavonic to present-day Bulgarian and Serbian. The main goal of the paper is to distinguish between those instances of Balkan-Slavic infinitive loss that are a result of broader typological processes and those that can be viewed as genuine Balkan-sprachbund innovations. The specific Balkan innovation in this context was the replacement of infinitives by finite subjunctives in obligatory subject-control environments. I analyse this diachronic development as the result of a formal reanalysis affecting the syntactic status of the Balkan-Slavic subjunctive marker, which allowed it to spread to obligatory-control structures.

**Keywords** Infinitive. Subjunctive. Balkans sprachbund. Old Church Slavonic. Bulgarian. Serbian.

**Summary** 1 Introduction. – 2 SIC from a Cross-Linguistic Perspective. – 3 SIC in Balkan Slavic: Infinitive loss. – 4 Inf>Subj Replacement in Balkan Slavic: Formal Analysis. – 5 Conclusion and broader implications.




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## 1 Introduction

One of the main issues in the study of Balkan languages has been to distinguish between those grammatical phenomena that can be considered as areal innovations in the context of Balkan sprachbund and those that are the result of broader cross-linguistic typological processes. This question has been extensively debated in the Balkan literature in relation to different Balkanisms observed across various languages of the region.<sup>1</sup> The present paper contributes to this broader debate in relation to the phenomenon of infinitive loss.<sup>2</sup> As exemplified below, languages within the Balkan-sprachbund area largely replaced their infinitives with finite subjunctive-type complements introduced under a separate mood marker (marked in bold in the examples below).<sup>3</sup>

- (1) a. *Thelo* **na** *kerdisi* *o* *Janis*. (Greek)  
 want<sub>.1.SG</sub> SUBJ win<sub>.3.SG</sub> the J.  
 ‘I want Janis to win.’  
 (Giannakidou 2009, 1886-7)
- b. *Maria vrea* **sa** *plece* *lon*. (Romanian)  
 M. want<sub>.3.SG</sub> SUBJ leave<sub>.3.SG</sub> I.  
 ‘Maria wants Ion to leave.’
- c. *Iskam* *tja* **da** *dojde*. (Bulgarian)  
 want<sub>.1.SG</sub> she SUBJ come<sub>.3.SG</sub>  
 ‘I want her to come.’
- d. *Želim* **da** *dode*. (BCMS)  
 want<sub>.1.SG</sub> SUBJ come<sub>.3.SG</sub>  
 ‘I want him/her to come.’

**1** See Friedman, Joseph 2024 for a detailed discussion of Balkan sprachbund features as well as an extensive overview of the previous literature on the subject.

**2** See Joseph 1983 for a detailed synchronic and diachronic account of Balkan infinitive loss.

**3** Balkan subjunctive is realized differently than subjunctive complements in most other languages, such as those belonging to the Western Romance group, like French or Italian. While the latter realize their subjunctive via distinctive verbal morphology, Balkan languages mark their subjunctive through separate syntactic items (such as those given in [1]), which are typically analysed as mood particles. The issue of Balkan subjunctive realization, which is beyond the scope of the present paper, has been extensively dealt with in the Balkan literature (Terzi 1992; Krapova 2001; Giannakidou 2009; Roussou 2009).

The infinitive loss in the Balkans will be analysed in relation to the broader phenomenon of subjunctive-infinitive competition (SIC), which has been long observed on a cross-linguistic basis (Bouchard 1984; Hock 1988; Farkas 1992). The goal of this paper is to distinguish between those instances of Balkan infinitive loss that are a result of broader typological processes and those that can be viewed as genuine sprachbund innovations.

The paper will focus on Balkan Slavic languages such as Bulgarian (Bg), Macedonian (Mk) and BCMS.<sup>4</sup> I will use the label Serbian (Sr) instead of BCMS here, as Sr has been more affected by the phenomenon of infinitive (Inf) loss than other varieties of BCMS (Sočanac 2011, 2017). The analysis I develop takes into account the SIC-related diachronic developments from Old Church Slavonic (OCS) to the present-day Balkan-Slavic languages. We will see that these developments were affected both by broader typological language processes, as well as by some more specific constraints related to Balkan-sprachbund.

Section 2 will outline the cross-linguistic situation pertaining to SIC, focusing in particular on (non-Balkan) Romance and Slavic languages in this context. First I will present the synchronic manifestations of SIC and the present-day distributions of Subj and Inf in these languages, and then I will briefly expound on the diachronic developments that led to the present-day situation. Section 3 will provide a synchronic and diachronic overview of the Balkan-Slavic developments pertaining to SIC. Section 4 will address the central question of this paper, i.e. distinguishing between the more specific sprachbund-related phenomena and the broader typological phenomena that led to the present-day SIC patterns in Balkan Slavic languages. I will argue that only those instances of infinitive loss that took place in obligatory-control environments can be considered as a genuine Balkan-sprachbund innovation, resulting from a specific formal development that took place in Balkan Slavic languages (and possibly other Balkan languages, too). The formal development in question was a syntactic reanalysis of the mood marker *da* from a higher subordinator to a lower particle, which allowed it to spread to obligatory-control structures with an impoverished left periphery. In addition to shedding more light on the Balkan situation pertaining to SIC, the analysis presented here also provides more general insights

<sup>4</sup> Note that BCMS is not typically viewed as a Balkan-Slavic language per se, given that it does not exhibit as many features of Balkan sprachbund as some other Slavic languages of the Balkan region, such as Bulgarian and Macedonian (Joseph 1983; Friedman, Joseph 2024). Nevertheless, Serbian will be grouped here alongside other Balkan Slavic languages because it has also been affected by the infinitive loss phenomenon (although not to the same extent as languages like Bulgarian or Macedonian, as will be explained in more detail in § 3).

into some broader processes and principles of grammaticalization and language change. Section 5 concludes the paper and outlines some avenues for future research.

## 2 SIC from a Cross-Linguistic Perspective

Here I will briefly outline the present-day manifestations of SIC in Romance and Slavic languages that are situated outside of the Balkans (i.e. Western Romance, Western and Eastern Slavic),<sup>5</sup> as well as some of the broader diachronic processes that led to the present-day situation.

### 2.1 Synchrony

Subj and Inf distribution in present-day Romance and Slavic languages has largely stabilized in complementation environments of the type exemplified in (2-3). Inf is used in cases where the subjects of the main clause and the embedded clause are the same (subject control), while Subj appears in cases where the subjects are different (subject obviation), as illustrated in the French and Russian examples below.<sup>6</sup>

- (2) a. *Je veux {venir/ \*que je vienne}.* (Fr)  
 I want<sub>.1.SG</sub> come<sub>.INF</sub> that I come<sub>.1.SG.SUBJ</sub>  
 'I want to come.'
- b. *Je veux {que tu viennes/ \*tu venir}.*  
 I want<sub>.1.SG</sub> that you come<sub>.2.SG.SUBJ</sub> you come<sub>.INF</sub>  
 'I want you to come.'
- (3) a. *Ja choču {prijti/ \*čtoby ja prišel}.* (Rus)  
 I want<sub>.1.SG</sub> come<sub>.INF</sub> that<sub>.SUBJ</sub> I come

<sup>5</sup> For ease of exposition, whenever Romance and Slavic are mentioned from here onwards (without any additional regional qualifier), I will be referring to the non-Balkan variants of these languages.

<sup>6</sup> Note that Slavic languages in general (both Balkan and non-Balkan) differ from Romance in that they do not realize their Subj mood on the verb but via separate left-periphery items (in this case the Russian *čtoby*). Once again, the issue of Subj realization will not be addressed in this paper, but see Antonenko 2008; Tomaszewicz 2012 or Sočanac 2017, among others, for more on the morpho-syntactic properties of Subj across different Slavic languages.

- b. *Ja choču {čtoby ty prišel/ \*ty prijti}.*  
 I want<sub>.1.SG</sub> that<sub>.SUBJ</sub> you come you come<sub>.INF</sub>

While Inf vs Subj distributions stabilized in complements to predicates such as volitionals, as in (2-3), other types of syntactic contexts may still allow for a degree of variability in the use of these two grammatical categories. Thus, for instance, adjunct clauses (typically purposives or resultatives), such as the one in the French (Fr) example in (4), can alternate between Inf and Subj more freely. The same goes for directive object-control clauses in certain languages, such as Spanish (Sp) in (5).

- (4) *Je me suis depeché {pour pouvoir te*  
 I<sub>REFL</sub> be<sub>.1.SG</sub> hurry<sub>.PAST.PTCP</sub> in-order-to be-able<sub>.INF</sub> you<sub>.ACC</sub>  
*rejoindre/ pour que je puisse} te rejoindre.*  
 join<sub>.INF</sub> so that I can<sub>.1.SG.SUBJ</sub> you<sub>.ACC</sub> join<sub>.INF</sub>  
 ‘I hurried up in order to join you/so that I can join you.’

- (5) *Te dijo { de venir/ que vengas}.*  
 you<sub>.DAT</sub> tell<sub>.3.SG.PST</sub> PART come<sub>.INF</sub> that come<sub>.2.SG.SUBJ</sub>  
 ‘He told you to come.’

Taking all the data in (2-5) into consideration, we can conclude that, for the types of complements we have in (2-3) (i.e. subject-control vs. obviation), the period of grammatical competition between Inf and Subj has essentially ended and the distributional patterns illustrated in (2-3) have largely stabilized throughout (non-Balkan) Romance and Slavic languages. As for the syntactic environments exemplified in (4-5), we can see that SIC is still underway in this context at least in certain languages.

## 2.2 Diachrony

The diachronic developments pertaining to SIC in Romance and Slavic languages can be viewed as part of a broader shift from paratactic to hypotactic structures, which led to the development of embedded structures of increasing syntactic complexity and articulation (Givón 1979; Harris, Campbell 1985; Karlsson 2009). In this sense, Inf represents an intermediate stage in the diachronic development of certain types of syntactic constructions found across various Indo-European (IE) languages. Inf itself was derived from deverbal nouns which became fixed in certain case forms (typically dative) in earlier IE variants (Meillet 1934; Jeffers 1975; Disterheft 1980). The resulting Inf

construction was widely distributed across a range of different syntactic contexts (both control and non-control) in languages like Latin or OCS (i.e. the historical antecedents of modern Romance and Balkan Slavic) (József 1963; MacRobert 1980; Joseph 1983). Inf then progressively gave way to finite complements (most prominently Subj) in a certain number of these syntactic contexts during the diachronic evolution of present-day Romance and Slavic languages.

The cross-linguistic shift from Inf to Subj (referred to here as ‘Inf>Subj replacement’) has been most pervasive in non-control environments where the subjects of the matrix and the embedded clauses are different. For instance, if we look at complements to volitional verbs in this context, we can note that Latin used Inf more extensively than the present-day Romance languages in this type of syntactic environment.

- (6) *Volo (te) venire.* (Lat)  
*want<sub>.1.SG</sub> you<sub>.ACC</sub> come<sub>.INF</sub>*  
 ‘I want (you) to come.’ (Joseph 1983, 150)

- (7) a. *Je veux que {tu viennes/ \*tu venir}.* (Fr)  
 I *want<sub>.1.SG</sub>* that you *come<sub>.2.SG.SUBJ</sub>* you *come<sub>.INF</sub>*
- b. *Quiero que {tu vengas/ \*tu venir}.* (Sp)  
*want<sub>.1.SG</sub>* that you *come<sub>.2.SG.SUBJ</sub>* you *come<sub>.INF</sub>*

As we can see in (6), Latin used the so-called *accusativus-cum-infinitivo* construction in the non-control variants of complements to volitional verbs, where the subject of the embedded Inf clause appeared in the matrix object position and was marked for accusative case (similarly as in the equivalent ECM-type constructions used in present-day English). On the other hand, modern Romance languages like Fr and Sp can only employ Subj in these types of clauses, as shown in (7). This is just one instance of the broader Inf>Subj replacement observed across a range of different (primarily non-control) syntactic contexts during the historical evolution of Romance languages. A similar diachronic development affected Slavic as well, given that Inf had a wider distribution in OCS than in present-day Slavic languages (Joseph 1983; Madariaga 2015). This tells us, therefore, that the replacement of Inf by Subj in the context of SIC is not a specifically Balkan phenomenon. Nevertheless, as we will observe in the next section, Balkan languages did undergo some specific diachronic developments in this context.

### 3 SIC in Balkan Slavic: Infinitive loss

#### 3.1 Synchrony

As briefly mentioned before (see fn. 4), Slavic languages of the Balkan region differ in the extent to which they exhibit linguistic features typical of Balkan sprachbund. Certain languages, like Bg or Mk, feature a greater amount of Balkanisms than a language like Sr, and in this sense they are considered as more ‘core’ Balkan Slavic languages (Mišeska Tomić 2006; Friedman, Joseph 2024). The same situation obtains when it comes to SIC as well: core Balkan Slavic languages have all but completely lost Inf across all syntactic contexts. Thus, even with subject-control verbs like *trjabva* (must) or *počna* (begin) (i.e. the canonical environments of Inf use cross-linguistically), languages like Bg or Mk introduce Subj *da*-complements instead of Inf.<sup>7</sup>

- (8) a. *Ivan trjabva da dojde.* (Bg)  
 I. must<sub>.3.SG</sub> SUBJ come<sub>.3.SG</sub>  
 ‘Ivan must come.’
- b. *Toi počna da studira pravo.* (Mk)  
 he begin<sub>.3.SG.AOR</sub> SUBJ study<sub>.3.SG</sub> law  
 ‘He began to study law.’

Sr, on the other hand, being a less ‘Balkanized’ language than Bg or Mk, exhibits a different distributional pattern in relation to SIC. Sr Inf was lost in most syntactic environments that do not involve subject control (e.g. directive object-control complements or adjunct

<sup>7</sup> As noted by an anonymous reviewer, a verb like *trjabva* (must) can appear in several different guises, including as an impersonal verb (in which case it does not involve subject control). In Sočanac 2017, I argued that this verb corresponds to (at least) two separate homophonous lexical entries, only one of which brings about obligatory subject control. There are several arguments that can be put forward in favor of this view: (i) the two instances of the verb differ semantically, because the control variant of *trjabva* can only denote deontic modality, while the non-control variant is compatible with epistemic readings as well; (ii) the control variant of the verb selects temporally anaphoric complements only compatible with (semantically vacuous) present tense, whereas the non-control variant selects a complement with more independent tense; (iii) control variants exhibit matrix-embedded locality phenomena with respect to their complements that are characteristic of mono-clausal structures, whereas the non-control variants behave like biclausal structures. The verb featured in (8a) exhibits all the properties of the control variant of *trjabva*, thus it is classed here as a subject-control verb. A similar contrast obtains with respect to the verb ‘want’ as well: the control variant of the verb exhibits mono-clausal properties in relation to its complement, whereas the non-control variant exhibits biclausal properties (including, most obviously, two separate subjects).

clauses in [9]), but it can still be used (interchangeably with Subj) in obligatory subject-control structures (10).

- (9) a. *Rekao mu je {da dođe/ \*doći}.*  
 tell<sub>.PAST.PTCP</sub> he<sub>.DAT</sub> be<sub>.3.SG</sub> SUBJ come<sub>.3.SG</sub> come<sub>.INF</sub>  
 ‘He told him to come.’
- b. *Požurio je {da stigne/ \*stići} na vrijeme.*  
 hurry<sub>.PAST.PTCP</sub> be<sub>.3.SG</sub> SUBJ arrive<sub>.3.SG</sub> arrive<sub>.INF</sub> on time  
 ‘He hurried to arrive on time.’
- (10) a. *Mora { da požuri/ požuriti}.*  
 must<sub>.3.SG</sub> SUBJ hurry<sub>.3.SG</sub> hurry<sub>.INF</sub>  
 ‘He must hurry.’
- b. *Počeo je { da uči/ učiti}.*  
 begin<sub>.PAST.PTCP</sub> be<sub>.3.SG</sub> SUBJ study<sub>.3.SG</sub> study<sub>.INF</sub>  
 ‘He began to study.’

In Section 4, I will formally account for the SIC-related contrasts between Balkan Slavic languages observed in (8-10).

### 3.2 Diachrony

If we look at some of the oldest available textual data from OCS (the earliest historical antecedent of modern-day Balkan-Slavic languages for which we have written evidence), Inf still predominates across most of the syntactic contexts we looked at so far, i.e. adjunct clauses (11a), object-control complements (11b), as well as subject-control complements (11c).

- (11) a. *isplъnišę oba korablja jako pogrožati sę ima.*  
 fill<sub>.3.PL.AOR</sub> both boats so-that sink<sub>.INF</sub> REFL have<sub>.3.SG</sub>  
 ‘They filled both boats so that they would sink.’
- b. *njestъ namъ ubiti.*  
 NEG<sub>.3.SG</sub> be<sub>.3.SG</sub> we<sub>.DAT</sub> kill<sub>.INF</sub>  
 ‘We are not to kill/ought not kill.’  
 (Cod. Supr., cit. in Lunt 2001, 159)



- c. *onъ*      *že*      *hotę*      *opravъditi*      *sę...*  
 he                      PART      want<sub>3.SG</sub>      justify<sub>.INF</sub>      REFL  
 ‘he, wanting to justify himself...’  
 (Cod.Zogr., cit. in Joseph 1983, 102)

Nevertheless, we begin to observe a degree of SIC and Inf>Subj replacement already in some of the earliest OCS manuscripts (e.g. *Codex Zographensis*, *Codex Suprasliensis*, *Vita Constantini* etc.). It is difficult to track the exact diachronic trajectory of this development at this early historical stage (given the paucity of textual evidence), but we can roughly determine in which syntactic contexts SIC first began to emerge. While Inf still predominated to the exclusion of Subj in subject-control complements such as the one in (11c), clauses of the type exemplified in (11a-b) (i.e. adjuncts and object-control complements) began to exhibit SIC already in some of the earliest OCS sources (Mirčev 1978; MacRoberts 1980; Joseph 1983). Examples given below in (12-13) are particularly illuminating in this context, because they show Inf and Subj competing for clauses that are syntactically identical.

- (12) a. *isplъnišę*      *sę*      *dъnъe*      ***roditi***      *ej*  
 fill<sub>3.PL.AOR</sub>      REFL      days      give-birth<sub>.INF</sub>      she<sub>.DAT</sub>  
 (Cod.Zogr.)

- b. *isplъnišę*      *sę*      *dъnije*      ***da***      ***roditъ***  
 fill<sub>3.PL.AOR</sub>      REFL      days      SUBJ      give-birth<sub>3.SG</sub>  
 ‘the days arrived for her to give birth’  
 (Cod.Supr., cit. in Mirčev 1978, 233)

- (13) *Moljаaxo*      *i*      ***da***      *ne*      *povęlitъ*      *imъ*      *vъ*      *bezdъnо*      *iti*.  
 beg<sub>3.PL.IMP</sub>      he<sub>.DAT</sub>      SUBJ      NEG      tell<sub>3.SG</sub>      they<sub>.DAT</sub>      in      abyss      go<sub>.INF</sub>  
 ‘They begged him not to tell them to go into the abyss.’  
 (Lunt 2001, 161)

In the example (12), we have an instance where different manuscripts employ Inf vs Subj within the exact same clause, with *Codex Zographensis* using Inf (12a) and *Codex Suprasliensis* using Subj (12b) to render the clause-final adjunct.<sup>8</sup> In (13), on the other hand, we have

<sup>8</sup> Given that *Zographensis* was composed at an earlier date (late ninth-early tenth century) than *Suprasliensis* (tenth century), it is not surprising that the former exhibits a more conservative pattern of Inf use in this context than the latter, as already noted in Cinque, Krapova 2019.

both Inf and Subj appearing within the same complex clause, each embedded under a directive predicate taking an overt object controller.<sup>9</sup> The fact that Inf and Subj were used interchangeably in contexts such as those in (12-13) already in the earliest OCS sources strongly suggests that these were some of the first environments of SIC in this language. This is further confirmed by the fact that clauses such as those in (12-13) completely lost the Inf option by the time when the latter was still available in subject-control complements, such as the one in (11c) (MacRobert 1980; Joseph 1983).

Nevertheless, these instances of Inf loss cannot be seen as Balkan-specific sprachbund innovations, because they can be couched within the broader diachronic move towards more articulated hypotactic structures discussed in § 2. The more specific Balkan-sprachbund development in this context is Inf loss in subject-control environments. As we saw earlier in (2-3), non-Balkan Romance and Slavic languages exclusively use Inf in this context. This was also the case in OCS (according to the best available textual evidence from the time), where Inf still largely predominated in complements to subject-control verbs such as those in (14):

- (14) a. *možaaše bo si xrisma prodana byti.*  
 can<sub>.3.SG.IMPF</sub> for this ointment sell<sub>.PAST.PTCP</sub> be<sub>.INF</sub>  
 ‘For this ointment could have been sold.’  
 (Cod.Zogr., cit. in Joseph 1983, 103)

- b. *čbto mi xoštete dati?*  
 what I<sub>.DAT</sub> want<sub>.2.PL</sub> give<sub>.INF</sub>  
 ‘What do you want to give me?’

- c. *čbto to mogot dati?*  
 what you<sub>.DAT</sub> can<sub>.3.PL</sub> give<sub>.INF</sub>  
 ‘What can they give you?’  
 (Cod.Supr., cit. in Cinque, Krapova 2019, 28-9)

Balkan-Slavic languages like Bg or Mk then first underwent a period of competition between Inf and Subj, where we could observe both of these constructions used in control complements of the type exemplified in (14).<sup>10</sup> This is apparent in some of the later medieval sources

<sup>9</sup> The clause in (13) appears in this same form across various different OCS codices.

<sup>10</sup> It is difficult to precisely track the historical stages of Inf loss in languages under study due to paucity of data and the type of language used in the primary sources we rely on, which was more formal and conservative than the spoken language of the time (given that the main available sources from OCS are religious or legal texts). This likely meant that Inf was overrepresented in those primary sources, given that it

such as the Tale of Troy (dating from the fourteenth century) or Wal-lachian letters (fifteenth-sixteenth century), where Subj began to appear in subject-control environments as well, as in the example below.

- (15) *i*     *xotěxø*             *da*   *pogubitʹ*   *Acileeša*  
 and wanted<sub>3.SG.AOR</sub>     SUBJ   kill<sub>3.SG</sub>     Achilles<sub>ACC</sub>  
 ‘and he wanted to kill Achilles’  
 (Tale of Troy, cit. in MacRobert 1980, 162)

Inf was all but lost in Bg and Mk by the end of the Early-Modern period, which is why control complements such as the ones above only feature Subj in the present-day variants of these languages, as we already observed in § 3.1. Sr, on the other hand, still exhibits SIC in control complements of this type, as shown earlier in (10). These different SIC-related patterns in Balkan Slavic will be formally accounted for in the next section.

#### 4     **Inf>Subj Replacement in Balkan Slavic: Formal Analysis**

The main goal of this section will be to provide a formal analysis that broadly accounts for the historical and synchronic patterns related to SIC that we observed in Balkan Slavic languages. I will claim that the phenomenon of Inf>Subj replacement in these languages was related to an underlying formal development which affected the syntactic status of the Balkan-Slavic Subj marker *da*. As we will see in more detail in 4.1, *da* was reanalysed and re-merged from a higher to a lower syntactic position within the clause structure. This, in turn, allowed the Subj marker to spread to obligatory-control environments as well, which are analysed here as small structures lacking a higher CP clausal layer.

##### 4.1     **Subj Marker *da* from a Historical Perspective**

Another relevant synchronic property of the subjunctive marker *da* (and its equivalents in other, non-Slavic Balkan languages) is the fact that it has to be contiguous to the embedded verb (Krapova 2001; Roussou 2009; Cotfas 2011).<sup>11</sup>

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constitutes a more conservative linguistic form than Subj in most contexts of its use. Nevertheless, when we take a broader historical view spanning several centuries, we can clearly observe the main tendencies related to SIC and Inf loss in Balkan Slavic.

**11** Only ‘light’ syntactic items such as clitics or negation can intervene between *da* and the embedded verb in this context, since they do not violate their syntactic locality.

- (16) a. *Iskam (Ivan) da (\*Ivan) dojde (Ivan).* (Bg)  
 want.<sub>1.SG</sub> I. SUBJ I. come.<sub>3.SG</sub> I.  
 'I want Ivan to come.'
- b. *Thelo (o Janis) na (\*o Janis) kerdisi (o Janis).* (Gr)  
 want.<sub>1.SG</sub> the J. SUBJ the J. win.<sub>3.SG</sub> the J.  
 'I want Janis to win.'

As we can see in (16), constituents such as the embedded subject can either be realized pre-verbally at the beginning of the embedded clause (in which case the subject has a more focalized interpretation), or post-verbally, but it never intervenes between the Subj marker and the embedded verb. As a result, Balkan Subj markers have typically been analysed in the literature not as complementizers inserted under a high C head but as particles merged lower down in the structure (Terzi 1992; Giannakidou 2009; Cinque, Krapova 2019).

The standard analysis in the Balkan literature tends to put the Subj marker under the dedicated mood/modality head (labelled here as Mod), couched between TP and CP.

- (17) [CP C [ModP Mod<sub>da</sub> [TP T [vP]]]]

I claim that the *da*-item is situated even lower than in the structure in (17), under a polarity head couched between TP and vP:

- (18) [CP C [TP T [PoIP PoI<sub>da</sub> [vP]]]]

There are several reasons why I adopt the analysis in (18) as opposed to the more standard one in (17). Firstly, Subj markers such as those featured in (16) (e.g. Slavic *da*, Greek *na*) have been shown to exhibit some polarity-sensitive properties. For instance, they can license certain NPIs that cannot appear in other types of embedded clauses.<sup>12</sup> Another argument in favour of treating *da* as a polarity (as opposed to a modal) head has to do with the distribution of this item. In particular, certain complements where *da* appears do not denote any modality on a semantic level, such as those selected by phasal aspectual verbs (e.g. *počna* 'begin' in [8b], for instance). It is therefore unlikely that this item is inherently endowed with modal properties, which presents a problem for the analysis in (17) but is unproblematic given the analysis in (18). Finally, the formal approach to the item *da* proposed here is also better able to account for the syntactic

<sup>12</sup> See Giannakidou 1998; 2009 or Progovac 1993, among others, for more on the interaction between Balkan Subj markers and polarity.

contiguity between *da* and the verb observed in (16), given that the Pol head in (18) is lower, and closer to V, than the Mod head in (17).

The only exception among present-day Balkan Slavic languages when it comes to the syntactic contiguity between the Subj marker *da* and the embedded verb is, once again, Sr. This language allows for syntactic material to intervene between *da* and the verb, but only in non-control (19a), not in control environments (19b).

(19) a. *Želim da Ivan dođe.*  
 want<sub>1.SG</sub> SUBJ I. come<sub>3.SG</sub>  
 ‘I want Ivan to come.’

b. *\*Mora da Ivan dođe.*  
 must<sub>3.SG</sub> SUBJ I. come<sub>3.SG</sub>  
 ‘Ivan must come.’

Core Balkan Slavic languages like Bg or Mk also allowed the syntactic configuration of the type exemplified in (19a) during some of the earlier stages of their diachronic development. This is evidenced by the fact that OCS sources regularly feature clauses such as those in (20), where different types of syntactic constituents can intervene between the Subj marker *da* and the embedded verb.

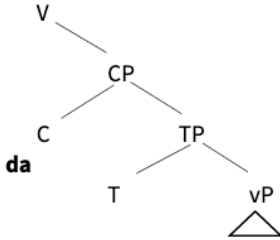
(20) a. *priněšę. děti da ręcě vřzložitъ na nję*  
 bring<sub>3.PL.AOR</sub> children SUBJ hands put<sub>3.SG</sub> on them  
 ‘They brought children so that he may put his hands on them.’

b. *něsmъ bo dostoinъ da podъ krovъ moj vřnideši.*  
 NEG-be<sub>1.SG</sub> for worthy SUBJ under roof my enter<sub>2.SG</sub>  
 ‘I am not worthy for you to enter under my roof.’  
 (Lunt 2001, 161)

As we can see in (20b) in particular, *da* in OCS preceded even left-extracted focalized constituents that occupy very high structural positions within the left periphery of the clause. It thus makes sense to argue that *da* in OCS occupied the highest C-position selected by the matrix predicate.<sup>13</sup>

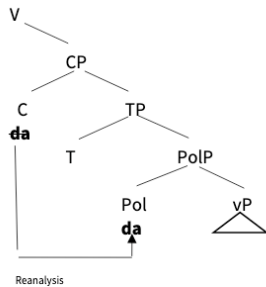
<sup>13</sup> In response to a question from an anonymous reviewer, the ‘high C position’ in this context refers to the syntactic head within the left periphery where *da* used to be merged, which likely corresponds to Force from Rizzi 1997. Given that the paper does

(21)



Over time, then, this item got reanalysed, shifting its status from a higher complementizer to a lower particle and switching its locus of merger from the high C to a lower Pol(arity) head, as in (22) below.

(22)



One of the direct consequences of the reanalysis in (22) was the greater contiguity between *da* and the embedded verb, explaining the Balkan-Slavic data in (17).

The difference between Sr, on the one hand, and Bg and Mk, on the other, in this context is the fact that Sr still features both the high *da* and the low *da* in its grammar, using the former in non-control (19a) and the latter in obligatory-control environments (19b).<sup>14</sup> As for Bg and Mk, their grammar no longer features the high *da* variant in

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not employ a cartographic approach of the type developed by Rizzi, I will not further pursue this line of enquiry here.

**14** In fact, Sr contains two separate homophonous *da*-items, each inserted under its own syntactic head within the structure, which is best observed in clauses such as the one below.

- (i) *Kaže da će da dođe.*  
 say<sub>3.SG</sub> that<sub>.COMP</sub> FUT SUBJ come<sub>3.SG</sub>  
 ‘He says that he will come.’

(22), which is why the Subj marker is always adjacent to the embedded verb in these languages, regardless of the type of syntactic environment it appears in. In the next section, I explain how the reanalysis in (22) also brought about the broader Inf>Subj replacement observed in Balkan Slavic.

#### 4.2 Inf>Subj replacement in obligatory control environments

As already noted in Section 3, the diachronic development pertaining to SIC which can be viewed as a specific Balkan-sprachbund innovation is the one where Subj replaced Inf in subject-control complements and obligatory control structures in general. There are two main arguments in favour of this view: from a distributional perspective, Subj use in such contexts is largely restricted to Balkan languages, while non-Balkan languages typically feature Inf there;<sup>15</sup> from a diachronic perspective, the earlier historical variants of the present-day Balkan languages (e.g. OCS or Ancient Greek) featured Inf, not Subj in these types of environments (Joseph 1983). This all points to the conclusion that Inf>Subj replacement in obligatory-control structures is a specific Balkan-sprachbund innovation.

I will argue that Inf>Subj replacement in Balkan Slavic was enabled by the diachronic reanalysis of *da* outlined in (22). I adopt an approach that views subject-control infinitivals (as well as other obligatory control constructions) as anaphoric structures lacking an embedded CP projection. This type of syntactic approach to obligatory-control structures is not new to this paper but has been widely proposed in the existing literature (see Kempchinsky 1986; Watanabe 1992; Wurmbrand 2013, among others). This explains, for instance, why obligatory-control complements tend to exhibit single-event readings, as shown below in the example of Balkan Slavic.

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The clause in (i) features two distinct *da* items merged within the same embedded structure: the higher *da* appears in the C-head selected by the matrix predicate, while the lower *da* (which is used to introduce the future-tense construction in [i]) appears under the Pol-head in (22). The higher *da* was used in (19a), hence the lack of contiguity between the Subj marker and the embedded verb, whereas (19b) featured the lower *da*, which is thus syntactically contiguous to the verb. The issue of the two *da*-items in Sr was treated at length in Todorović 2012 and Sočanac 2017, among others.

**15** A Balkan-like complementation pattern was also noted in this context in some South-Italian varieties, such as Calabrian or Salentino, which also use finite Subj-type complements in control environments (Calabrese 1993; Ledgeway 1998; Lombardi 1997). In fact, some have argued that these South-Italian varieties may have themselves been affected by Balkan-sprachbund phenomena, due to the long-standing contacts with Greek in the region. I do not further pursue this question here.

- (23) a. \**Trjabaše* *da* *dojda* *utре.* (Bg)  
 must<sub>.1.SG.IMPF</sub> SUBJ come<sub>.1.SG</sub> tomorrow
- b. \**Počeo* *je* *da* *uči* *sutra.* (Sr)  
 begin<sub>.PAST.PTCP</sub> be<sub>.3.SG</sub> SUBJ study<sub>.3.SG</sub> tomorrow
- c. \**Počeo* *je* *učiti* *sutra.*  
 begin<sub>.PAST.PTCP</sub> be<sub>.3.SG</sub> study<sub>.INF</sub> tomorrow

In (23), we can see that neither control Subj (23a-b), nor control Inf complements (23c) can feature conflicting tense marking in the matrix and the embedded clause (past vs. future in this case), which is indicative of their single-event semantic status. In this sense, clauses in (23) pattern with simple mono-clausal structures, which are also incompatible with such conflicting tense marking. From a syntactic standpoint, complements such as those in (23) were shown to exhibit matrix-embedded locality phenomena in relation to operations such as NPI binding, pronoun vs anaphor binding or clitic climbing, among others (Krapova 2001; Sočanac 2017; Krapova, Cinque 2019). Locality phenomena of this type are, once again, typical for simple clauses. It thus makes sense to claim that obligatory subject-control complements of the type exemplified in (23) are syntactically encoded within mono-clausal structures featuring a single, matrix CP.

Given that Subj *da* used to occupy a higher C-head in OCS, it could not be used in control structures that lack CP altogether, explaining the prevalence of Inf in these types of clauses in OCS. The spread of Subj *da* marking to these obligatory-control environments became possible once the reanalysis in (22) took place. This explains why the increased contiguity between *da* and the verb, which directly resulted from the reanalysis in (22), followed a similar historical trajectory as the broader Inf>Subj replacement observed in Balkan Slavic. The period where both Inf and Subj were used in these control contexts (roughly ranging from tenth-sixteenth century in languages like Bg or Mk)<sup>16</sup> corresponds to a period of grammatical competition between the structure containing the higher C-*da* and the one with the lower Pol-*da*. Eventually, the lower Pol-*da* structure won out in core Balkan Slavic languages like Bg or Mk, which paved the way to full Inf>Subj replacement. When it comes to Sr, on the other hand, it makes sense to claim that the grammatical competition outlined above is still underway, which is why Inf was not fully replaced by Subj in this language. Once again, when *da* is used in non-control environments in Sr, we

<sup>16</sup> See MacRobert 1980 or Joseph 1983 for a more detailed chronological account in this context.



are still dealing with the ‘old’ *da*, situated under the high C-head, as in (21), hence the possibility for syntactic material to intervene between *da* and the lower verb, as we saw in (19a). In control complements, on the other hand, we are dealing with the lower *da* which is contiguous to the verb. In this latter type of context, therefore, there is no difference between Sr, on the one hand, and Bg and Mk, on the other, since they all feature the lower *da* and consequently ban any syntactic material from intervening between *da* and the embedded verb:

- (24) a. \**Trjabva da Ivan dojde.* (Bg)  
           *must*<sub>.3.SG</sub> *subj* *I.* *come*<sub>.3.SG</sub>  
       b. \**Počinje da Ivan vozi.* (Sr)  
           *begin*<sub>.3.SG</sub> *subj* *I.* *drive*<sub>.3.SG</sub>

The analysis put forward here thus presents us with a formal mechanism that can explain how Inf>Subj replacement took place in Balkan Slavic. Nevertheless, the account developed so far has little to say as to why this development took place specifically in the Balkans. In the next section, I outline some tentative answers to this question.

### 4.3 Inf loss in the context of Balkan sprachbund

I will argue that the Inf-loss phenomenon in Balkan Slavic was likely caused by a confluence of several different factors (in addition to the formal development outlined in § 4.1). One of these factors was a phonetic weakening of Inf morphology that affected core Balkan-Slavic languages like Bg or Mk, which ultimately led to the complete loss of the Inf suffix *-ti* (Mirčev 1983; Friedman, Joseph 2024). The resulting bare infinitival form became homophonous with certain person/number inflections within the finite verbal paradigm. Certain authors (e.g. Togeby 1962) posited the idea that this type of homophony may have eventually led to the broader reanalysis of Inf as a finite clause.

Nevertheless, the homophony between Inf and certain finite verb forms is not sufficient to provide the full explanation for Inf loss data in Balkan Slavic. As noted by Joseph (1983), for instance, similar homophony involving Inf is observed to an even greater degree in present-day English. In particular, English Inf morphologically overlaps with the present tense in all persons except 3rd person singular, and yet we did not observe Inf being replaced by finite complements in English in the same way as it was in Balkan languages. As a result, the phonological developments described above should not be seen as the sole or decisive trigger behind Inf loss, but as one of several factors that led to this development.

On the other hand, authors such as Rozentsveig (1976) or Hauge (1977) claimed that the main Balkan-specific factor behind the formal and diachronic developments pertaining to SIC had to do with the broader socio-linguistic context that was historically prevalent in the Balkans. As described by Friedman and Joseph (2014; 2024), among others, the linguistic situation in the Balkans was characterized, during long historical periods, by pervasive multilingualism and extensive borrowings on all linguistic levels, resulting from intense social interactions between speakers of different native languages. Some have argued that the historical developments pertaining to Inf loss were crucially affected by this broader socio-linguistic context. First of all, the reason why Inf was not cross-linguistically supplanted by Subj can be explained in terms of the principle of language economy, specifically eliminating redundancy. In effect, the use of Subj in subject-control environments leads to redundant representation of subject-related  $\varphi$ -features both on the matrix and on the embedded verb (see [8], for instance), which is an undesirable result from the point of view of language economy. Nevertheless, Hauge (1977) argued that the specific socio-linguistic context in the Balkans may have led to a situation where redundant linguistic representations became useful from a communicative perspective. This is because such redundancy facilitated language processing and comprehension for non-native speakers, given that any linguistic information that is redundantly expressed more than once (such as the subject's  $\varphi$ -features in the case of control Subj) is more likely to be correctly parsed by the addressee.

Some circumstantial evidence in favour of this approach can be gleaned if we look at the distributional data pertaining to SIC across Balkan Slavic. In effect, the languages in which Inf was lost to the greatest degree (i.e. Bg and Mk) are situated in the area within the Balkans (encompassing roughly the present-day Macedonia and the neighbouring territories around it) where the social interactions described above were the most intense and long-lasting (Friedman and Joseph 2024). Sr, on the other hand, occupies a more peripheral position within the Balkan-sprachbund area, since the bulk of its speakers are situated more to the North or to the West of the core Balkan-sprachbund area where linguistic interactions were the most intense. As a result, Sr did not lose its Inf to the same degree as the core Balkan-Slavic languages like Bg or Mk. Nevertheless, those dialects of Sr that are closer to the core Balkan-sprachbund area, in particular the Torlak dialect spoken in south Serbia, almost completely lost Inf as well, which is expected under the approach outlined here (Belić 1905; Pavlović 1960).

Nevertheless, the socio-linguistic approach described above also received a fair deal of criticism in the literature (see MacRobert 1980 or Joseph 1983, among others). I therefore agree with the anonymous reviewer who suggested that Hauge's proposal should be viewed as a hypothesis that still needs to be confirmed. In any case, my paper

here does not make a strong claim that any single factor (whether it be language-internal or extra-linguistic) is responsible for the historical developments pertaining to Balkan Inf loss. Those developments were, once again, likely caused by a confluence of different factors, including some that were outlined here. The broader socio-historical context and language contacts certainly played a role in the Balkan SIC developments described here, but the exact way in which these different factors interacted to bring about the present-day situation still needs to be more precisely determined.

## 5 Conclusion and broader implications

In this paper, I provided a formal account that explained the diachronic developments pertaining to SIC observed in Balkan Slavic. The progressive loss of Inf and its replacement with Subj over time was accounted for by positing a formal reanalysis in the underlying syntax of the Subj marker *da*, whereby the latter changed its status from a high C-item to a lower particle merged under a Pol-head adjunct to the verb. This, in turn, allowed the *da*-item to spread to obligatory control complements that contain a small structure lacking a CP layer. This formal development, in conjunction with several other factors (some of which were outlined in § 4.3), eventually led to broader Inf>Subj replacement (either full or partial) across Balkan Slavic.

The argument developed in this paper also opens up some broader questions in relation to diachronic linguistic analysis. In particular, the formal account provided in § 4.1 seems to go against certain cross-linguistic diachronic principles that have been previously proposed in the literature. For instance, Roberts and Roussou (2003) argued in favour of the idea of ‘upward grammaticalization’, the main claim being that syntactic items such as mood particles can only be reanalysed to occupy a higher node in a syntactic structure, not a lower one (as proposed here). Such an approach is also compatible with some broader principles of economy, such as ‘Merge-over-Move’ proposed by Chomsky (1995). If the account provided here is correct, then the principles described above are not to be viewed as inviolable laws but rather as strong cross-linguistic tendencies which will obtain typologically unless overridden by some other factors in local linguistic contexts. The reanalysis of *da* from a higher C-item to a lower Pol-item, which goes against Roberts and Roussou (2003), could therefore represent an instance where local linguistic factors related to Balkan sprachbund (some of which were outlined here) overrode some of the broader typological principles that operate on a cross-linguistic level.

Finally, the analysis presented here also opens up some avenues for future work. The main challenge in this context will be to

provide a fuller and more principled account of the interaction between broader typological principles and the more languages-specific constraints in the diachronic development of linguistic phenomena such as Balkan Inf loss. Such a principled account will be pursued by confronting the broader conclusions reached in this paper with cross-linguistic data, especially those found in various sprachbund situations, not just in the Balkans but across the world.

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