

Subject obviation and case

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In this paper I explore the phenomenon of subject obviation, i.e. ban on coreference between the pronominal subject of the embedded subjunctive clause and the subject of the matrix clause. The obviation effects arise in Russian, while in Serbo-Croatian, the obviation effects are absent if the embedded subject is phonologically null. I investigate the structure of Russian and Serbo-Croatian embedded indicative and subjunctive clauses, and propose that a featural approach to binding, according to which binding relations can operate on featural complexes, can successfully explain the obviation effects in Russian. I adopt the framework by Pesetsky and Torrego 2001, 2007, and demonstrate that the obviation effects are linked to nominative case, and only nominative-marked elements are affected. I further argue that the embedded null subject of the subjunctive clauses in Serbo-Croatian is PRO, and therefore lacks nominative case. This property explains the contrast in obviation between Russian and Serbo-Croatian.

1 Introduction

The phenomenon of subject obviation effects in subjunctive clauses when the pronominal subject of the subordinate subjunctive clause cannot be coreferential with the matrix subject has received some attention in the recent literature based on a number of languages (Chomsky 1981, Piccolo 1985, Farkas 1992, Avrutin and Babyonyshev 1997, Hornstein 2007). This sharply contrasts with indicative clauses, where such coreference is possible and with infinitival complements, where such coreference is mandatory. In this paper I explore the subjunctive embedded clauses in Russian and Serbo-Croatian. Subject obviation arises in Russian with nominative, but not dative subjects, while in Serbo-Croatian, when the embedded subject is phonologically empty, there are no obviation effects.

The organization of this paper is the following. In section 2 I provide the basic overview of Russian and Serbo-Croatian subjunctives and demonstrate the phenomenon of subject obviation. In section 3 I outline the theoretical framework which I use to analyze the obviation effects. Section 4 contains the analysis of the indicative and subjunctive embedded clauses in Russian in the framework of Pesetsky and Torrego 2007, and the explanation of the obviation effects based on tense sharing. I also show that the nominative case of the embedded subject plays an important role in this process. Section 5 deals with the case of Serbo-Croatian subjunctives, where I argue (following Miskelijin 2006) that the null subject of subjunctive complements is PRO, and therefore does not participate in the tense sharing. Based on that I explain away the absence of obviation effects with the null subject in Serbo-Croatian. Section 6 concludes the paper.

2 Russian and Serbo-Croatian subjunctive clauses

2.1 Preliminary data on Russian subjunctives

Russian subjunctive clauses are introduced by the complementizer *čtoby*. The verb in the subjunctive clause is morphologically in the past tense, and no other verbal forms are allowed, as shown

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in the example (1):

- (1) a. Ivan xočet čtoby Maša pročitala/čitala “Vojnu i Mir”
 I. wants that.subj M. read.pst.perf/pst.imperf “War and Peace”
 ‘Ivan wants for Masha to read “War and Peace”’
- b. * Ivan xočet čtoby Maša čitaet/pročitaet/budet čitat’ “Vojnu i Mir”
 I. wants that.subj M. read.pres/fut.perf/fut.imperf “War and Peace”

On the contrary, Russian indicative clauses are introduced by the complementizer *čto*. The restriction on the morphology/tense of the verb is not present in indicative clauses, as illustrated by the example (2):

- (2) a. Ivan skazal čto Maša pročitala/čitala “Vojnu i Mir”
 I. said that M. read.pst.perf/pst.imperf “War and Peace”
 ‘Ivan said that Masha have read/was reading “War and Peace”’
- b. Ivan skazal čto Maša čitaet/pročitaet/budet čitat’ “Vojnu i Mir”
 I. said that M. read.pres/.fut.perf/.fut.imperf “War and Peace”
 ‘Ivan said that Masha is reading/will have been read/will be reading “War and Peace”’

Despite the fact that the verb in the embedded subjunctive clause is morphologically in the past form, the event denoted by embedded clause is not situated in the past, either with respect to the event in the matrix clause, or with respect to the speech act. On the contrary, the event described in the embedded clause (a reading of “War and Peace” in (1a)) is *irrealis* and might happen in the future with respect to the time of the event described in the matrix clause (the volition act in (1a)).

2.2 Preliminary data on Serbo-Croatian subjunctives

Similar to Russian, Serbo-Croatian does not exhibit any specific subjunctive morphology on the verb. The embedded verb is morphologically present indicative. The subjunctive embedded clause is introduced by the complementizer *da*. The interpretation of the subjunctive sentences is mostly similar to Russian, determined by the time frame of the matrix verb.

There are two types of subjunctives in Serbo-Croatian, illustrated in example (3).

- (3) a. (On) pokušava da e otvori kutiju (* sutra).
 (He) trying that.subj open box tomorrow
 ‘He is trying to open the box (tomorrow)’ [Type I]
- b. Marija želi da e kupi klavir (sutra).
 M. wants that.subj buy piano tomorrow
 ‘Maria wants to buy a piano (tomorrow)’ [Type II]

Type I subjunctive complements are used in control contexts, selected by the verbs such as *nam(j)eravati* ‘intend’, *izb(j)egavati* ‘avoid’ and *pokušavati* ‘try’ (according to Tomić 2006). Type II subjunctive complements are selected by volitional verbs such as *ht(j)eti* ‘will/want’, *žel(j)eti* ‘wish’, *tražiti* ‘demand’ and in their distribution are close to Russian subjunctives. Further, overt (lexical or pronominal) subjects are not allowed in Type I subjunctives but allowed in Type II, as shown in (4).

- (4) a. (On_i) je pokušao da *on_{i/j}/Marko otvori kutiju.
 (he) aux try that.subj he/Marko open box
 ‘He is trying to open the box’
- b. (On) hoće da Marija ode.
 (he) wants that.subj M. leave
 ‘He wants Maria to leave’

Because of this similarity in the distribution of the Russian subjunctives and Serbo-Croatian Type II subjunctives, in what follows I will only concentrate on them.

2.3 The obviation phenomenon in Russian and Serbo-Croatian

In this section I illustrate some syntactic differences between subjunctive and indicative clauses in Russian related to the well known phenomenon of obviation discussed in detail in Avrutin and Babyonyshev 1997. This phenomenon is illustrated in the examples in (5) (ibid.):

(5) *Subject obviation*¹

- a. Volodja_i xočet čtoby on_{*i/j} potseloval Nadju
 V. wants that.subj he kissed N.
 ‘Volodja wants that he kiss Nadja.’
- b. Volodja_i skazal čto on_{i/j} potseloval Nadju
 V. said that he kissed N.
 ‘Volodja_i said that he_{i/j} kissed Nadja.’

In example (5a), where the embedded clause is subjunctive, the pronominal subject of the embedded clause cannot be coindexed with the matrix subject. However, when the embedded clause is indicative as in example (5b), coreference between the matrix and embedded subjects is possible. As can be seen from the examples (6), the indicative-subjunctive distinction only holds of coreference between the matrix subject and the embedded subject. In contrast, coindexing of the matrix subject with the embedded object is possible in both types of clauses:

- (6) a. Volodja_i xočet čtoby Nadja ego_{i/j} potselovala
 V. wants that.subj N. him kissed
 ‘Volodja_i wants Nadja to kiss him_{i/j}’
- b. Volodja_i skazal čto Nadja ego_{i/j} potselovala
 V. said that N. him kissed
 ‘Volodja_i said that Nadja kissed him_{i/j}.’

Passivization of the object in the embedded subjunctive clause gives rise to obviation effects, as demonstrated in (7).

(7) *Passive sentences:*

- a. *Ivan_i xočet čtoby on_i byl nakormlen
 I. wants that.subj he was fed
 ‘Ivan wants to be fed’
- b. Ivan_i xočet čtoby kniga byla im_i pročítana
 I. wants that.subj book was he.inst read
 ‘Ivan_i wants the book to be read by him_i’

More data comes from consideration of dative experiencer subjects in Russian, such as in (8).

- (8) Volodja_i xočet čtoby emu_i bylo xorošo
 V. wants that.subj he.dat was good
 ‘Volodja wants to feel good’

¹ Russian is not a pro-drop language, therefore examples like in (i) would be ungrammatical regardless of the reading:

- (i) a. *Volodja xočet čtoby *pro* potseloval Nadju
 V. wants that.subj kissed N.
- b. *Volodja skazal čto *pro* potseloval Nadju
 V. said that kissed N.

In example (8) the experiencer of the embedded subjunctive clause is a dative marked pronoun *emu* ‘he.dat’. Bailyn 2004 has proposed that in dative experiencer constructions the dative subjects are located in the Spec,TP position. Under these assumptions about the structural position of dative experiencer, this example presents a surprising contrast with the case of subject obviation in (5a). Both of these examples ((8) and (5a)) have embedded subjunctive clause with the pronominal subject occupying Spec,TP position. However, in case of nominative marking on embedded pronoun the obviation effects arise, while when the embedded pronominal subject is marked with dative case, the coreference between the matrix and embedded subjects is possible.

Now, I concentrate on the Serbo-Croatian Type II subjunctives, since they allow overt subjects and therefore can be directly compared with Russian. Consider the paradigm illustrated in (9).

(9) *Obviation effects in Serbo-Croatian:*

- a. (On_i) hoće da e_{i/*j} ode.
 (he) wants that.subj leave
 ‘He wants to leave’
- b. (On_i) hoće da on_{*i/j} ode.
 (he) wants that.subj he leave
 ‘He wants to leave’

In (9a), when the embedded subject is phonologically null, the coreference with the matrix subject is mandatory, and the null-element cannot refer to any other entity. In (9b), when the embedded subject is an overt pronominal, the obviation effects similar to Russian arise. Overt embedded pronominal subjects cannot be coreferential with the matrix subject. To summarize, obviation effects are absent in Serbo-Croatian if the subject is phonologically empty and present (similar to Russian) if it is an overt pronominal.

3 Theoretical framework

3.1 Feature-sharing Agree

In my analysis of the indicative/subjunctive distinction in Russian, I follow the framework outlined in Pesetsky and Torrego 2007, which I will briefly summarize below. It is based on the possibility of feature sharing, and allows a feature to have several instances in various locations within the syntactic tree. The crucial operation for Pesetsky and Torrego is the following version of Agree stated in (10).

(10) *Agree: Feature Sharing Version (from Pesetsky and Torrego, 2007)*

- a. An unvalued feature F (a probe) on a head H at syntactic location α (F_α) scans its c-command domain for another instance of F (a goal) at location β (F_β) with which to agree.
- b. Replace F_α with F_β , so that the same feature is present in both locations.

For Pesetsky and Torrego’s 2007 analysis, application of the Feature-Sharing version of Agree operation may create multiple instances of a single feature in various syntactic locations within the structure. The mechanism is as follows: after probing by a head with an unvalued feature, the features of a goal and a probe enter into an Agree relation, and both become instances of the same feature.

Another crucial assumption which is needed to maintain feature sharing is the elimination of Chomsky’s Valuation/Interpretability Biconditional that allows only uninterpretable and unvalued $\langle uF -val \rangle$ and interpretable and valued $\langle iF +val \rangle$ features. In the new system by Pesetsky and Torrego 2007, two more types of features are allowed: uninterpretable and valued $\langle uF +val \rangle$ and interpretable and unvalued $\langle iF -val \rangle$. Furthermore, Pesetsky and Torrego follow Chomsky 2001 in proposing that unvalued features act as probes, but differ in allowing interpretable and unvalued $\langle iF -val \rangle$ features to act as probes (which were absent for Chomsky).

Tense-features on the finite verb and T can serve as examples of the features which in Pesetsky and Torrego’s framework violate Chomsky’s biconditional. For instance, the T-feature on T is

interpretable (since it is a “locus of semantic tense interpretation”), but unvalued, and that allows it to be a probe. On the contrary, the T-feature on a finite verb is uninterpretable (no semantic interpretation happens within the verb itself), but valued, since the verb comes from the lexicon with morphologically specified tense. This feature specification allows the finite verb to serve as a goal.

One more crucial point for Pesetsky and Torrego is the adoption of the Thesis of Radical Interpretability from Brody 1997, given in (11):

(11) *Thesis of Radical Interpretability (from Brody 1997):*

Each feature must receive a semantic interpretation in some syntactic location.

The Thesis of Radical Interpretability means that every feature must have at least one interpretable instance, and an uninterpretable feature must delete at the interface with semantics once it is valued: that means that uninterpretable features must get valued in order to be deleted.

3.2 Move-F and feature approach to binding

The operation of covert feature movement, “Move-F,” was considered in Chomsky 1995. A set of formal features (FF) of a head can adjoin to another head forming a complex, consisting of features of both heads. For instance, features of a transitive verb’s object can adjoin to the complex $v+V$, which is formed by the raising of the main verb V and adjoining it to the v . The result of this adjunction is a complex $v+V+FF(\text{object})$. That, for instance, would allow object agreement to be checked and accusative case to be assigned. In a similar fashion, the formal features of the subject under certain circumstances can adjoin to T , resulting in the complex $T+FF(\text{subject})$. Adopting the framework of Pesetsky and Torrego 2007, I propose (similar to Watanabe 2000) that Move-F happens after probing by an unvalued feature, and as a result the set of formal features of the goal adjoins to the probe. The phonological movement accompanying Move-F takes place only if there is a relevant EPP feature present on the probe.

In what follows I will elaborate on the mechanism of feature raising by revisiting the proposal by Watanabe 2000, who argues that (interpretable) features of the goal are necessarily copied to the probe under Agree. Watanabe compares the approach of Chomsky 1998 with the approach of Chomsky 2000. Chomsky 1998 argues that feature checking always involves the adjunction of the features of the goal to the probing head. For instance, under this approach, subject raising to T from the initial configuration in (12a) gives rise to the configuration in (12b), where the formal features of the subject are copied onto the T -head, and if T is endowed with the EPP feature, the subject ends up phonologically realized in the Spec,TP position. Under the latter approach by Chomsky 2000, the idea of obligatory feature raising under Agree relation is abandoned: The Agree relation takes place without feature displacement. Getting back to the case of subject to T raising, according to Chomsky 2000, the Agree operation between T and the subject does not result in the formal featural complex of the subject being copied to the T -probe. The resulting configuration under this approach is given in (12c).

(12) a. T [$_{VP}$ Subj ...]

b. [$_{TP}$ Subj [$_T$ [$_T$ FF(T)+FF(Subj)]] [$_{VP}$ t_{subj} ...] (Chomsky 1998)

c. [$_{TP}$ Subj [$_T$ FF(T)] [$_{VP}$ t_{subj} ...] (Chomsky 2000)

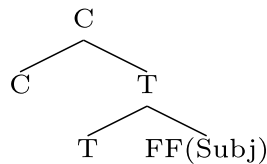
Based on complementizer agreement facts from Dutch, following Zwart 1997, Watanabe argues that the correct approach is the one resulting in the configuration in (12b). He proposes that the agreement morphology on the complementizer in Dutch comes from the features of the subject itself. He argues that ϕ -features of the subject, being interpretable, are not deleted after raising of the featural complex of the subject to T . After adjunction of T to C these features are still active, giving rise to the agreement morphology on the complementizer. The examples of complementizer agreement in the Groenigen dialect of Dutch are given in (13) following Zwart 1997.

(13) *Complementizer agreement in Dutch (Zwart 1997, Watanabe 2000):*

a. ... of ik kom
whether I come

- b. ... of-s toe kom-s
 whether-2sg you come-2sg

c.



Branigan 2000 argues that binding theory is sensitive not only to the overt movement of the constituents, but that also movement of the formal features can influence the binding relations. His arguments are based on consideration of the English ECM constructions, such as the one shown in (14a).

(14) *English ECM constructions (Branigan 2000):*

- a. Perry proved [[Jill and Tony]_i to have lied] during each other_i's trials.
- b. Perry proved [[Jill and Tony]_i [_{VP} e [_{TP} t_i to have lied] during each other_i's trials]]
- c. Perry [_{VP} proved+FF(Jill and Tony)_i [_{TP} [Jill and Tony]_i to have lied] during each other_i's trials]

In (14a), the reciprocal *each other* is located in the matrix clause, while its antecedent is in the embedded clause. However, no violation of Principle A occurs, and the sentence is grammatical. Two possibilities, demonstrated in (14b) and (14c), have been proposed in the literature. According to (14b), the embedded subject is in fact located in the matrix clause after undergoing raising to object. This raising allows the reciprocal to become bound by the raised embedded subject, and therefore Principle A is satisfied. The alternative analysis, shown in (14c), involves the raising of the formal features of the embedded subject to the matrix clause, and it is the formal features of the subject that serve as an antecedent to the reciprocal. In order to choose between two possible solutions, Branigan combines the ECM constructions like the ones in (14) with the locative inversion.

(15) *English ECM, locative inversion (Branigan 2000):*

- a. The photos [_{VP} showed [_{TP} behind this very hedge had been hiding [Jill and Tony]_i] during each other_i's trials].
- b. the photos [_{VP} FF(Jill and Tony)_i-showed [_{TP} behind this very hedge to have been hiding [Jill and Tony]_i] during each other_i's trials]

(15a) is similar to (14a), but the locative phrase *behind this very hedge* has undergone locative inversion. Locative inversion is commonly assumed to be the dislocation of the locative phrase to the TP-peripheral position. Under this assumption, it is clear that the embedded subject stays within the embedded clause, and there is no raising to object. Therefore the only possible analysis of the sentence in (15a) involves feature raising of the embedded subject to the matrix clause, as demonstrated in (15b) and these formal features serve as a binder for the reciprocal, satisfying the Principle A.

The featural approach to binding can be summarized as in (16).

(16) *Featural approach to binding:*

- a. A set of formal features of a nominal element is indistinguishable from a nominal element itself from the point of view of the computational system.
- b. Binding theory operates on sets of formal features, even if their displacement is not accompanied by pied-piping of phonological material.

4 An analysis of indicative/subjunctive distinction in Russian

In this section I apply the theoretical framework outlined in section 3 above to subjunctive and indicative clauses in Russian. I assume that even though the verb in the subjunctive clauses is morphologically past, it bears different temporal features (I elaborate on this issue below). For instance, in some Romance languages (Spanish, Italian, and French), the subjunctive is a separate form of the verb,

distinct from the past form. I propose that the fact that the subjunctive form of the verb is identical to the past tense form in Russian is just an idiosyncrasy.

Further, from the data presented in (1) and the semantic interpretation of the subjunctive sentences which I provided above in section 2.1, I conclude that the subjunctive form of the verb bears an unvalued T feature, unlike verbs in other finite forms (for example, past).

- (17) a. Ivan xočet čtoby Maša pročitala “Vojnu i Mir”
 I. wants that.subj M. read.subj “War and Peace”
 ‘Ivan wants for Masha to read “War and Peace”’ [Subjunctive]
- b. Ivan skazal čto Maša pročitala “Vojnu i Mir”
 I. said that M. read.pst.perf “War and Peace”
 ‘Ivan said that Masha have read/was reading “War and Peace”’ [Indicative]

That means that in the sentences in (17) the verb *pročitala* ‘read’ comes from the lexicon embedded with different features (even though those two forms are morphologically indistinguishable): in sentence (17a) it bears a $\langle uT -val \rangle$ feature, whereas in the sentence (17b) it bears a valued instance of the T feature $\langle uT +val \rangle$.

This proposal about the subjunctive vs. indicative clauses is summarized below in (18) in what I will call the Subjunctive parameter:

- (18) *The Subjunctive parameter:*
- a. (In Russian,) the subjunctive form of the verb bears a $\langle uT -val \rangle$ feature;
 b. (In Russian,) finite forms of the verb bear $\langle uT +val \rangle$ feature.

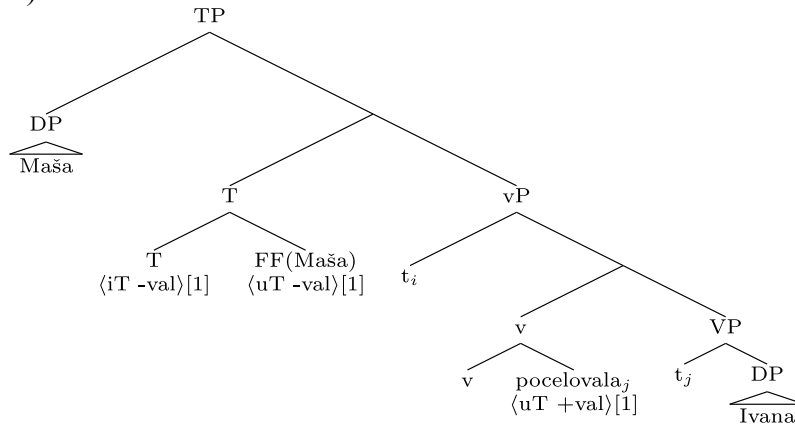
I claim that the adoption of the Subjunctive parameter in (18), along with the proposal about the featural approach to binding (Watanabe 2000) within the Pesetsky and Torrego 2001, 2007 framework allows us to account for the asymmetries between indicative and subjunctive clauses illustrated in section 2.

In what follows I will show how the derivation of indicative clauses works in Russian, and then proceed to the subjunctive.

4.1 Indicative clauses

Recall that by the Subjunctive parameter (18), indicative verbs have $\langle uT +val \rangle$ T-feature. The derivation proceeds in a standard bottom-up way. The verbal projection vP is built in a standard manner with V adjoining to v. If the embedded clause of a sentence is indicative (as in (17b)), after T is merged into the tree structure, its interpretable but unvalued feature $\langle iT -val \rangle$ probes to find its goal, finding it in the $\langle uT -val \rangle$ feature on the subject DP (assuming that Nominative case is an instantiation of the T-feature on D, as in Pesetsky and Torrego 2001). After the Agree operation takes place, the features on T and the subject D are linked, and become instances of the same feature. However, since the subject DP’s T-feature is unvalued, the shared T feature also remains unvalued. The EPP subfeature of T-feature on T is active, and the featural complex of the embedded subject attaches to T forming a complex T+FF(emb. subj.). However, because only valued features can be interpreted, T must probe further down in the tree in order to find a value. The second probing finds a goal $\langle uT +val \rangle$ on the finite verb within the vP projection. After the Agree operation, all three T-features – those on T, the subject DP and V become instances of the same feature, and the valuation of the $\langle iT \rangle$ on T takes place, resulting in the valuation of $\langle uT \rangle$ on subject DP also. After this step, all T-features in the embedded clause are valued. The subject EPP, being a phonological condition, will be satisfied by further raising of the embedded subject to Spec,TP. Now, there are no unvalued features left in the embedded clause, and its derivation can stop. The resulting structure of the embedded TP before final valuation takes place is given in (19).

(19)



Notice that there is no movement to the CP domain, as nothing in the CP domain will be able to probe and attract a goal. After merging the complementizer *čto*, the lower CP phase is completed with no elements but the complementizer at its edge. After that the material is sent off to interpretation.

4.2 Subjunctive clauses

In the case of Russian subjunctive clauses, applying the analysis proposed above gives surprisingly different results. Following the proposed Subjunctive Parameter (18), I claim that the subjunctive verb comes from the lexicon with the unvalued T feature $\langle uT -val \rangle$. This contrasts with the verbs in indicative clauses, which enter the numeration with valued T features. Also, I would assume the presence of *čtoby* in the numeration for selectional purposes (I would claim that volitional predicates, such as *xotet* ‘to want’, select CPs headed by *čtoby*. Therefore, if *čtoby* is not present in the numeration, the derivation will crash.). I assume that *čtoby* also comes from the lexicon endowed with an uninterpretable unvalued $\langle uT -val \rangle$ feature². Now let’s consider the derivation of the subjunctive clauses.

The embedded vP is built in standard fashion. After that T is merged into the structure. In a similar way to the case of indicative clauses, the embedded T probes and Agrees first with the subject DP, and then with the verb (to be more precise, $v+V$ complex), resulting in feature sharing among all these elements, making the T-features on T, the subject DP and $v+V$ all being instances of the same feature. In a similar way to the indicative case, because of the EPP subfeature of the T-feature on T, the formal featural bundle of the embedded subject adjoins to T, forming a complex $T+FF(\text{emb. subj.})$. However, unlike in the case of indicative clauses, no valuation can occur at this point, since the T-feature on the embedded subjunctive verb is not valued. Therefore the derivation proceeds by the merging of *čtoby* in the C-head position.

The T-feature of *čtoby* is unvalued, and therefore must probe down to find its goal. The first goal it finds is a $T+FF(\text{emb. subj.})$ complex with unvalued T-feature. Feature sharing Agree takes place, and the instances of the T-feature on *čtoby*, on T, on the embedded subject, and on the embedded verbal complex become instances of the same feature. Further, the featural bundle created in T adjoins to *čtoby*. and the resulting configuration from the completion of the embedded CP-phase is given in (20), where the index [1] shows which T-features are instances of the same feature, and DP_{emb} is the subject of the embedded clause.

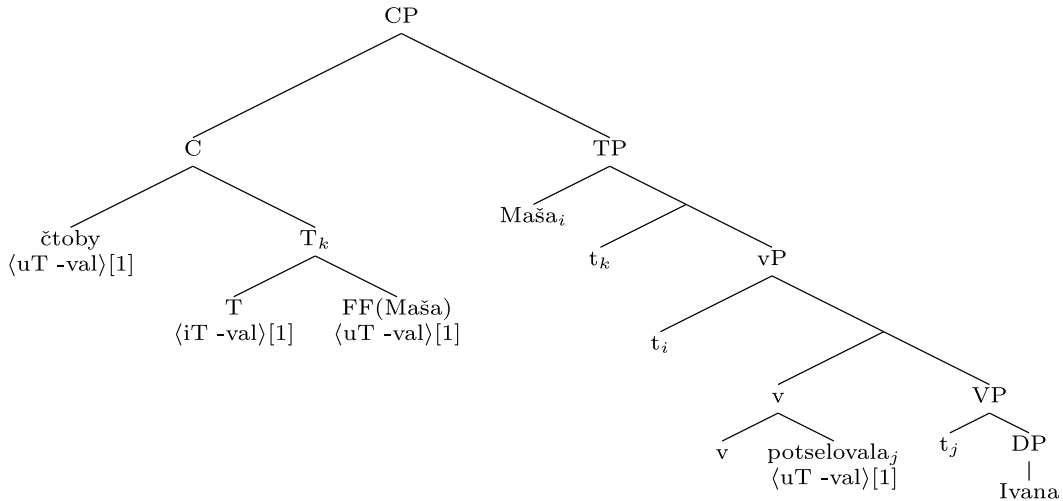
(20) a. $[CP \text{ } \check{c}to \text{ } \mathbf{by}_{\langle uT -val \rangle [1]} + \mathbf{T}_{\langle T -val \rangle [1]} + \mathbf{FF}(\text{emb. subj.}) \text{ } [TP \text{ } DP_{\text{emb}} \text{ } v+V_{\langle uT -val \rangle [1]} \text{ } \dots$

² Indirect evidence for this comes from the fact that closely related to Russian Polish shows complementizer agreement effects similar to those mentioned for Dutch in Zwart 1997:

(i) *Polish complementizer agreement:*

- | | |
|--------------------------------|---------------------------------|
| a. Chcę żebyś (ty) to zrobił | b. Jan chce żeby pro przyjechał |
| want that.subj.2sg (you) it do | J. want that.subj.3sg arrive |
| ‘I want you to do it’ | ‘Jan wants him to arrive’ |

b.



Crucially, even though there are unvalued features by the end of the derivation of this phase, the derivation does not crash, since the unvalued T-feature was able to move to the edge of CP-phase to the C-head position (bolded in (20)), and therefore will remain accessible for further Agree relations with the probe from the higher domain.

Next, the elements of the matrix clause are merged in the structure: V/v with the $\langle uT +val \rangle$ (since the matrix verb is finite), and matrix subject DP_{matr} with the instance of $\langle uT -val \rangle$. Recall that V in subjunctive constructions selects a CP headed by *čtoby*. This selectional property would result in the featural complex, which by that moment in the derivation is present on *čtoby*, to move and adjoin to the matrix V. By the time the vP of the matrix clause is completed, the featural bundle raised from the head of embedded CP and adjoined to the V, and further to v, still does not have a value for its T-feature. The configuration at this stage of the derivation is given in (21)³. Notice that here the featural complex in the head of vP position has two different types of T-features: one marked with [1], indicating that it came from the embedded clause, and all other instances which by that moment did not enter the Feature sharing version of the Agree relationship.

(21) [vP $DP_{\text{matr}} \langle uT -val \rangle$ v+V $\langle uT +val \rangle$ +C $\langle uT -val \rangle$ [1]+T $\langle iT -val \rangle$ [1]+FF(emb. subj.) ... [CP *čtoby*...]

At the next stage, the matrix T, endowed with $\langle iT -val \rangle$ feature, is merged into the structure. Since it is an interpretable feature, it probes down, finding the T-feature of the matrix subject and Agrees with it, resulting in a shared feature between it and the matrix subject DP_{matr} . As before, the formal feature bundle of the matrix subject adjoins to T. Further, since the T-feature of the matrix T is still unvalued (as none of the elements with which it has agreed have provided it with a value), it probes down one more time and finds the matrix $v+V+C+T+FF(\text{emb. subj.})$ complex as a goal. The Agree operation at this stage makes all the T-features on the matrix and embedded Vs, and the T-features in the featural complex located in the matrix v-head position instances of the same feature, and values them, acquiring the value from the $\langle uT +val \rangle$ matrix verb.

After this crucial step, all T-features introduced so far in both matrix and embedded clauses are instances of the same T-feature, and all of them become valued. The resulting structure is shown in (22). As before, the bolded features are the features, which were raised from the embedded clause:

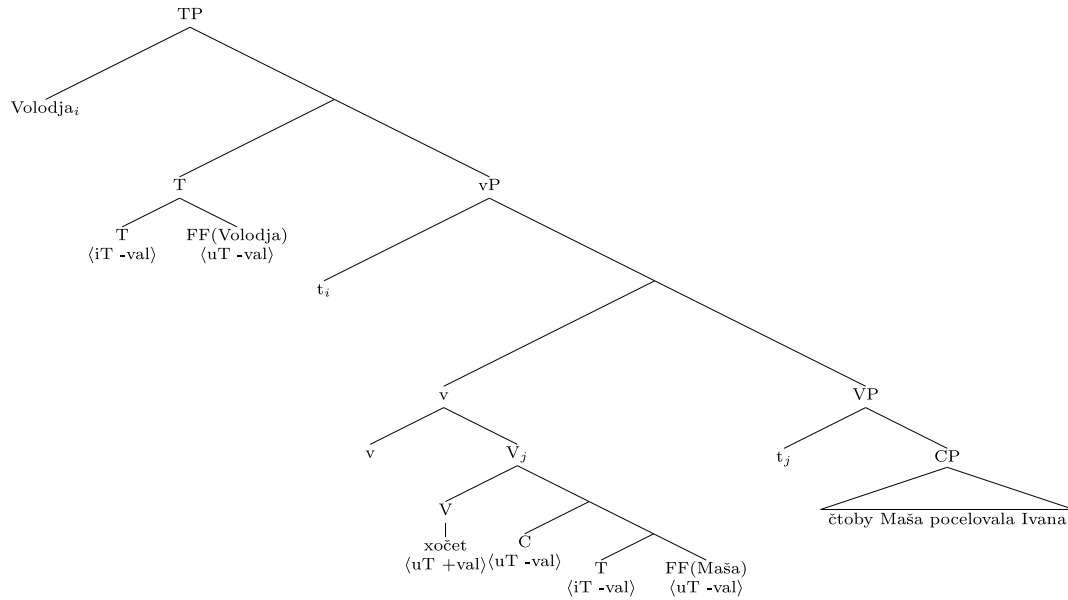
(22) [TP T $\langle iT +val \rangle$ [1]+FF(matr. subj.) [vP $DP_{\text{matr}} \langle uT +val \rangle$ [1] v+V $\langle uT +val \rangle$ [1]+C $\langle uT +val \rangle$ [1]+T $\langle iT +val \rangle$ [1]+FF(emb. subj.) ... [CP *čtoby* by...]

³ I will not go into details of how and why *čtoby* gets pronounced in the lower clause, and why its phonological features do not raise along with the formal featural complex to the position in the matrix clause. For more details on this I refer the reader to Antonenko, to appear, where I propose that *čtoby* consists of two parts: *čto*, located in Spec,CP, and *by*, which is a complementizer C.

(23) presents an example of the sentence with the subjunctive embedded clause, and gives an example of the tree before the final valuation has taken place:

- (23) a. Volodja xočet čtoby Maša pocelovala Ivana
 V. wants that.subj M. kiss I.
 ‘Volodja wants Mary to kiss Ivan’

b.



4.3 Russian obviation explained

I propose that the obviation constitutes a violation of Principle B. As I mentioned earlier in my consideration of Move-F, the featural bundle of the nominal is indistinguishable from the nominal itself from the point of view of the computational system, and therefore the formal feature complex can enter into binding relations (Watanabe 2000, Branigan 2000; cf. Saito 2005, 2003 where he proposes that the <Arg> feature of nominals participates in binding relations). In my view here, Principle B is violated if the bundle of formal features FF of the pronominal element is locally bound by its antecedent or the set of formal features of its antecedent.

This analysis of the indicative embedded clauses allows an account of the lack of obviation facts in indicative sentences from examples (5b) and (6b) in section 2, repeated here in (24):

- (24) a. Volodja_i skazal čto on_{i/j} poceloval Nadju
 V. said that he_{i/j} kissed N.
 ‘Volodja_i said that he_{i/j} kissed Nadja.’
 b. Volodja_i skazal čto Nadja pocelovala ego_{i/j}
 V. said that N. kissed him
 ‘Volodja_i said that Nadja kissed him_{i/j}.’

In (24a) the embedded subject is in the T-domain, and therefore cannot be bound by *Volodja*, since the matrix subject cannot see inside the lower CP-phase. A similar situation can be observed in (24b): the embedded object is located low inside the embedded CP-phase and therefore cannot be bound by the matrix subject. Therefore, no violation of Principle B arises, and both examples are grammatical.

Now I will consider the obviation phenomenon in the case of subjunctive embedded clauses. The relevant examples are repeated in (25):

- (25) a. *Volodja_i xočet čtoby on_i poceloval Nadju
 V. wants that.subj he kissed N.
 ‘Volodja wants that he kiss Nadja’
 b. Volodja_i xočet čtoby Nadja pocelovala ego_{ij}
 V. said that.subj N. kissed him
 ‘Volodja_i wants Nadja to kiss him_{ij}.’

In example (25a), by the time the matrix vP phase is completed the configuration is the following (following the analysis proposed in the previous section):

- (26) [_{vP} Volodja_i v+V+...+FF(he_i) [_{CP} ... [_{TP} he ...

The formal features of the embedded pronominal subject end up adjoined to the matrix v+V complex, which is c-commanded by the matrix subject. The Principle B is violated at this configuration, and it will remain violated even as *Volodja* moves to the Spec,TP, rendering the sentence ungrammatical:

- (27) [_{TP} Volodja_i [_{vP} t v+V+...+FF(he_i) [_{CP} ... [_{TP} he ...

The sentence (25b) is however grammatical. The embedded vP-phase, where the pronominal object is located, is closed by the time the matrix vP is completed, and also there is no movement of the formal features of the embedded object to the matrix clause. Therefore, the violation of Principle B does not occur, and the sentence is grammatical.

Now consider a situation in which the embedded clause has a dative subject (Bailyn 2004). The relevant example is given in (28). Observe that in this case there are no obviation effects:

- (28) Volodja_i xočet čtoby emu_i bylo xorošo
 V. wants that.subj he.dat be good
 ‘Volodja wants to feel good’

Following the proposal of Pesetsky and Torrego 2001, the T-feature on D is realized as nominative case. It is this fact that accounts for the raising of embedded nominative subjects formal features to the embedded T, and subsequent raising of T+FF(emb. subj.) complex first to the embedded C, and later to the matrix v+V complex to check features with the matrix T. However, in the absence of nominative case, no such raising is possible because of the lack of T-feature on the dative subject. Therefore, when the subject of the embedded clause is dative, its features do not adjoin to the embedded T, and thus there is no raising of its features from the embedded clause into the matrix clause. That results in the FF of dative subjects staying within the embedded TP, and therefore Principle B is not violated in sentences with embedded dative subjects. This explains the grammaticality of sentences like (28), and thus the observed absence of obviation effects is accounted for.

5 Subjunctives in Serbo-Croatian

5.1 Status of the subjects of subjunctives

The embedded subject of SC volitional subjunctives can be argued to be PRO rather than *pro*. The arguments given in (29) – (32) (from Miskelijn 2006) demonstrate the differences between the overt and phonologically null subject in the case of volitional subjunctives.

- (29) *Availability of sloppy reading under ellipsis (cf. English control clauses):*
 a. Marija hoće da kupi klavir i Jelena takođe.
 M. wants that.subj buy piano and J. too
 ‘Marija wants to buy the piano and Jelena too.’

- b. Mary wants to buy the piano, and Helen too
 (*Helen wants to buy the piano, not Helen wants Mary to buy the piano*)

Consider (29). The emergence of sloppy reading under ellipsis is predicted only if the embedded subject is PRO. The Serbo-Croatian example can be compared with the similar English control example, which uncontroversially involves a PRO subject.

- (30) *NPI-licensing is blocked by a nominative argument:*
 a. Ne želim da e vidim nikoga.
 NEG want that.subj see noone
 ‘I don’t want to see anyone.’
 b. *Ne želim da Marija vidi nikoga.
 ‘I don’t want Marija to see anyone’

Example (30b) shows that the presence of the nominative marked argument blocks the NPI licensing in the embedded clause. If the embedded null-subject of the subjunctive were *pro*, we would expect to find similar effects in (30a); however the sentence is perfectly grammatical.

- (31) *Blocking of topic-preposing by a case-marked element:*
 a. To ne želim da e uradim.
 that NEG want that.subj do
 ‘That, I don’t want to do.’
 b. ?*To ne želim da Marija uradi.
 that NEG want that.subj M. do
 ‘That, I don’t want Marija to do.’

Similarly, in (31b), the (nominative) case marked element blocks the topic-preposing. However, in Type II subjunctives when the subject is null, the topic-preposing is grammatical. That confirms the hypothesis that the null-subject of embedded type II subjunctives is not case-marked, and therefore PRO.

- (32) *Extraction:*
 a. *Ko Marko želi [da t poljubi Mariju]? [Subjunctive]
 who M. want that.subj kiss M.
 ‘Who does Marko want to kiss Marija?’
 b. ?Ko Marko misli [da t je poljubio Mariju]? [Indicative]
 who M. think that aux kissed M.
 ‘Who does Marko think kissed Marija?’
 c. Za koga Marko želi [da t poljubi Mariju]? [Subjunctive]

In (32a), nominative *wh*-phrase *ko* is extracted from the subject of Type II subjunctive. Notice, that the extraction of the subject of the indicative clause leads to grammatical (32b). Therefore, the contrast between (32a) and (32b) would be surprising if the subjects of the Type II subjunctive were marked with nominative case. However, under the assumption that PRO is the subject of the embedded clause in (32a), its ungrammaticality can be accounted for since the *wh*-phrase *ko* does not get a nominative case. Notice that in (32c), *koga* gets its case from the preposition *za*, and therefore the sentence is grammatical.

I will take the evidence mentioned above to be sufficient to claim that the phonologically empty subject of the volitional subjunctives in Serbo-Croatian is PRO rather than *pro*. In the next section I demonstrate why there are no obviation effects with PRO.

5.2 Absence of obviation effects

As I mentioned earlier, obviation effects are absent in Serbo-Croatian if the subject is phonologically empty (33a), and present (similar to Russian) if it is pronominal (33b) (repeated from (9)):

- (33) *Obviation effects in Serbo-Croatian:*
- a. (On_i) hoće da e_{i/*j} ode.
 (he) wants that.subj leave
 ‘He wants to leave’
- b. (On_i) hoće da on_{*i/j} ode.
 (he) wants that.subj he leave
 ‘He wants to leave’

Under my account of obviation in Russian, this difference receives a straightforward explanation. As argued in section 5.1 the null-subject in the example (33a) is PRO, and therefore lacks a nominative case. Under Pesetsky and Torrego’s approach, only nominative case is a T-feature on D⁴, and therefore PRO, which either lacks case all together or has a special null-case, does not participate in tense sharing. Thus, the formal features of the embedded subject do not raise to the matrix clause, and therefore the violation of Principle B will not occur. Therefore, the lack of obviation effects with the Type II subjunctives when the subject is null is predicted. This situation is reminiscent of the lack of obviation with dative subjects in Russian. The presence of obviation effects with the overt subjects in SC, as demonstrated in (33b) can be explained in the same way as Russian subject obviation.

This is another argument showing that obviation is a case-based phenomenon, and that only nominative marked pronominal subjects (which according to Pesetsky and Torrego 2001 are endowed with <uT -val> feature) in the embedded clause cannot be coreferential with the matrix subject.

6 Conclusion

In this paper I explored the structure of subjunctive clauses in Russian and Serbo-Croatian, and argued that subjunctive verbs, despite carrying tense morphology, have an unvalued T-feature. I explored a featural approach to binding, showing that feature displacement not accompanied by pied-piping of phonological material can alter binding relations. These assumptions allowed me to reduce subject obviation to a violation of Principle B on a featural level. Further, I demonstrated that subject obviation is a case-based phenomenon, and that only nominative embedded subjects are affected. Therefore, dative subjects in Russian and PRO subjects in Serbo-Croatian embedded subjunctive clauses are not affected, and can be coreferential with the matrix subjects.

A similar approach to subject obviation can be used to capture a number of differences in the behavior of the subjects of subjunctive clauses in a wide range of languages, such as Spanish, French, Italian and Catalan, which exhibit obviation, and Romanian, Modern Greek and Bulgarian, where subject obviation is absent in certain types of subjunctives. I leave these tasks for future research.

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⁴ In Pesetsky & Torrego 2004, the accusative case is also considered to be related to T, however that T is different from the sentential T. The accusative marked nominal’s tense feature is checked within the vP projection, and therefore does not participate in Tense-sharing between the embedded and matrix clause.

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