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## Puzzles of Russian Subjunctives

### Abstract

In this paper I explore the structure of Russian subjunctive and indicative clauses, and demonstrate the asymmetries between them. The first asymmetry is 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 second asymmetry is the fact that the long-distance scrambling of subjects is allowed out of subjunctive complements, and prohibited out of indicative complements. The third asymmetry concerns the fact that the subject *wh*-extraction is allowed out of subjunctive embedded clauses, and prohibited out of indicative. In order to account for these asymmetries, I adopt the framework by Pesetsky and Torrego (2001, 2007) and propose featural approach to binding (similar to Branigan, 2000), according to which binding operated on bundles of formal features, and not only on overt nominals. That allows me to reduce obviation effects to the violation of Principle B on featural level. I further propose that Russian indicative clauses lack complementizer, and what was thought to be an indicative complementizer in Russian (*ehto*) is in fact located in Spec,CP position. At the conclusion I show how Criterial Freezing approach by Rizzi (2006) can account for impossibility of subject extraction (both *wh*-extraction and scrambling) out of indicative embedded clauses, and propose the mechanism according to which subjunctive complementizer (*by*) can free up the subject of the subjunctive embedded clause for extraction.

# Puzzles of Russian Subjunctives

Andrei Antonenko\*

## 1 Introduction

In this paper I present several syntactic asymmetries between indicative and subjunctive clauses in Russian. The first puzzle is a well-known phenomenon of obviation, when the pronominal subject of the embedded subjunctive clause cannot be coreferential with the matrix subject. The second asymmetry deals with the cases of long-distance scrambling and *wh*-extractions. As I show in this paper, subject long-distance scrambling and *wh*-extraction are prohibited out of indicative embedded clauses, and are allowed out of subjunctive embedded clauses. The goal of this paper is to propose an account for these asymmetries between indicative and subjunctive embedded clauses.

## 2 Properties of Russian 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 in (1). On the contrary, Russian indicative clauses are introduced by the complementizer *čto*, and do not have any restrictions on the morphology/tense of the verb, as illustrated in (2):

- (1) Ivan xočet čtoby Maša pročitala/\*čitaet/\*budet čitat' "Vojnu i Mir"  
I. wants that-SUBJ M. read-PST/-PRES/-FUT "War and Peace"  
'Ivan wants for Masha to read "War and Peace"'
- (2) Ivan skazal čto Maša pročitala/čitaet/budet čitat' "Vojnu i Mir"  
I. said that M. read-PST/-PRES/-FUT "War and Peace"  
'Ivan said that Masha have read/is reading/will read "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. It 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 (1)).

### 2.2 The Subject Obviation in Russian

In this section I illustrate the well known phenomenon of subject obviation discussed in detail in Avrutin and Babyonyshev (1997) (For similar effects in other languages, see Picallo, 1985; Farkas, 1992 a.o.). This phenomenon is illustrated in the examples in (3) (*ibid.*):

- (3) a. Volodja<sub>i</sub> xočet čtoby on<sub>\*i/j</sub> potseloval Nadju  
V. wants that-SUBJ he kissed N.  
'Volodja wants that he kiss Nadja.'
- b. Volodja<sub>i</sub> skazal čto on<sub>i/j</sub> potseloval Nadju  
V. said that he kissed N.  
'Volodja<sub>i</sub> said that he<sub>i/j</sub> kissed Nadja.'

In example (3a), where the embedded clause is subjunctive, the pronominal subject of the

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embedded clause cannot be coindexed with the matrix subject. However, when the embedded clause is indicative as in example (3b), coreference between the matrix and embedded subjects is possible.

More data comes from consideration of dative experiencer subjects in Russian, such as in (4).

- (4) Volodja<sub>i</sub> xočet čtoby emu<sub>i</sub> bylo xorošo  
 V. wants that-SUBJ he-DAT was good  
 ‘Volodja wants to feel good’

In example (4) 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, this example presents a surprising contrast with the case of subject obviation in (3a). Both of these examples (4) and (3a) have an embedded subjunctive clause with the pronominal subject occupying the Spec,TP position; however, the obviation effects are absent if the Spec,TP contains a dative experiencer.

### 2.3 Long Distance Scrambling

In this section I present the asymmetries between the possibilities of long-distance scrambling out of indicative and out of subjunctive embedded clauses in Russian.

(5) *Subjunctive embedded CP:*

- |   |  |
|---|--|
| a.?Ja doktor <sub>i</sub> xoču čtoby t <sub>i</sub> priexal.<br>I doctor want that-SUBJ arrive<br>‘I want doctor to arrive more often.’ | b.?Ja Ivana <sub>i</sub> xoču čtoby Petr pobil t <sub>i</sub> .<br>I I. want that-SUBJ P. beat<br>‘I want Peter to beat Ivan.’ |
|---|--|

(6) *Indicative embedded CP:*

- |  |  |
|--|--|
| a.*Ja doktor <sub>i</sub> videl čto t <sub>i</sub> pod'exal.<br>I doctor saw that arrive<br>‘I saw that doctor arrived.’ | b.?Ja Ivana <sub>i</sub> videl čto Petr pobil t <sub>i</sub> .<br>I I. saw that P. beat<br>‘I saw that Peter beat Ivan.’ |
|--|--|

As one can see from (5) and (6b), declarative sentences in which one of the constituents of the embedded subjunctive clause undergoes long-distance scrambling are mildly deviant, as well as the declarative sentences with long-distance object scrambling from an indicative embedded clause. However, long-distance subject scrambling is prohibited from indicative embedded clauses, as shown in (6a).

### 2.4 That-trace Effects

Further asymmetries between subjunctive and indicative embedded clauses in Russian can be seen by exploring *that*-trace effects. The *that*-trace effect in English (7) requires *that*, introducing a CP from which the subject has been extracted, to be obligatorily absent.

- (7) a. Who do you think (that) Sue met t?      b. Who do you think (\*that) t met Sue?

In the rest of this section I will demonstrate the existence of the similar effects for Russian, and will outline their distribution.

(8) *Wh-extraction, indicative embedded clauses*

- |   |   |
|---|---|
| a. *Kto ty dumaeš čto t vypil vsjo pivo?<br>who you think that drank all beer<br>‘Who do you think drank all beer?’ | b. ?Kogo ty dumaeš čto Ivan narisoval t na zabore?<br>who you think that I. drew on fence<br>‘Who do you think Ivan drew on the fence?’ |
|---|---|

- (9) *Wh-extraction, subjunctive embedded clauses*
- a.?Kto ty xočeš čtoby t napisal stat'ju?  
 who you want that-SUBJ wrote paper  
 ‘Who do you want for to write a paper?’
- b.?Čto ty xočeš čtoby Ivan kupil t ?  
 what you want that-SUBJ I. bought  
 ‘What do you want for Ivan to buy?’

*Wh*-extraction out of indicative clauses in (8) shows asymmetries similar to English. In the presence of *čto*, only the embedded object, and not the embedded subject, can be extracted, as examples (8a) and (8b) demonstrate. Notice that the sentence (8b) is mildly deviant, exhibiting the “flavor” of subjacency violation, and is not accepted by all speakers as perfect.

Now we can consider example (9), showing the *wh*-extraction out of subjunctive clauses. One can see that the extraction out of subjunctive clauses does not show any subject/object asymmetries: both examples (9a,b) are grammatical, and show only minor subjacency violations.

### 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 a feature sharing version of Agree stated in (10).

- (10) *Agree: Feature Sharing Version (from Pesetsky and Torrego, 2007)*
- An unvalued feature  $F$  (a probe) on a head  $H$  at syntactic location  $\alpha$  ( $F_\alpha$ ) scans its c-command domain for another instance of  $F$  (a goal) at location  $\beta$  ( $F_\beta$ ) with which to agree.
  - Replace  $F_\alpha$  with  $F_\beta$ , 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 operations may create multiple instances of a single feature in various syntactic locations within the structure. 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 by allowing not only uninterpretable and unvalued  $\langle uF -val \rangle$  and interpretable and valued  $\langle iF +val \rangle$  features, but also uninterpretable and valued  $\langle uF +val \rangle$  and interpretable and unvalued  $\langle iF -val \rangle$ . In Pesetsky and Torrego’s framework, both  $\langle uF -val \rangle$  and  $\langle iF -val \rangle$  features act as probes.

One more crucial point for Pesetsky and Torrego is the adoption of the Thesis of Radical Interpretability from Brody (1997), stating that each feature must receive a semantic interpretation in some syntactic location. It 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, the formal features of the subject can adjoin to T under certain circumstances, resulting in the complex T+FF(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 of 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 raising of the features of the goal to the probing head. For instance, subject raising to T from the initial configuration in (11a) gives rise to the configuration in (11b). 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. The resulting configuration under this approach is given in (11c).

- (11) a. T [<sub>VP</sub> Subj ... ]  
 b. [<sub>TP</sub> Subj [<sub>T</sub> [<sub>T</sub> FF(T)+FF(Subj)] [<sub>VP</sub> t<sub>subj</sub> ... ] (Chomsky, 1998)  
 c. [<sub>TP</sub> Subj [<sub>T</sub> FF(T)] [<sub>VP</sub> t<sub>subj</sub> ... ] (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 (11b). He proposes that the agreement morphology on the complementizer in Dutch comes from the features of the subject itself. He argues that  $\phi$ -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 (12) following Zwart (1997).

- (12) a. ... of ik kom b. ... of-s toe koms  
 whether I come whether-2sg you come-2sg

Branigan (2000) argues that binding theory is sensitive not only to the overt movement of the constituents, but movement of the formal features can also influence the binding relations. His arguments are based on consideration of the English ECM constructions, such as the one shown in (13a).

- (13) a. Perry proved [[Jill and Tony]<sub>i</sub> to have lied] during each other<sub>i</sub>'s trials.  
 b. Perry proved [[Jill and Tony]<sub>i</sub> [<sub>VP</sub> e [<sub>TP</sub> t<sub>i</sub> to have lied] during each other<sub>i</sub>'s trials]]  
 c. Perry [<sub>VP</sub> proved+FF(J. & T.)<sub>i</sub> [<sub>TP</sub> [Jill and Tony]<sub>i</sub> to have lied] during each other<sub>i</sub>'s trials]

In (13a), 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 (13b) and (13c), have been proposed in the literature. According to (13b), the embedded subject is located in the matrix clause after undergoing raising to object. This raising allows the raised subject to bind the reciprocal and satisfy Principle A. The alternative analysis, shown in (13c), 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 (13) with the locative inversion.

- (14) a. The photos [<sub>VP</sub> showed [<sub>TP</sub> behind this very hedge had been hiding [Jill and Tony]<sub>i</sub>] during each other<sub>i</sub>'s trials].  
 b. the photos [<sub>VP</sub> FF(J. & T.)<sub>i</sub>-showed [<sub>TP</sub> behind this very hedge to have been hiding [Jill and Tony]<sub>i</sub>] during each other<sub>i</sub>'s trials]

(14a) is similar to (13a), 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 (14a) involves feature raising of the embedded subject to the matrix clause, as demonstrated in (14b), 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 (15).

- (15) *Featural approach to binding*:
- a. A set of formal features of a nominal element is indistinguishable from a nominal element 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.

### 3.3 T-to-C Movement in Russian and Status of Russian Complementizers

In this section, I will briefly consider the status of T-to-C movement in Russian, and its consequences for status of Russian *čto* and *čtoby*, which are usually assumed to be complementizers in indicative and subjunctive embedded clauses respectively.

Pesetsky and Torrego (2001) argue that the C in English embedded declarative clauses is endowed with an unvalued T-feature with the EPP subfeature: it must be valued for the derivation to avoid crashing. Assuming their proposal that Nominative case is in fact a T-feature on D, the valuation of the T-feature on C can proceed by one of the two following scenarios. The first scenario involves valuation of the T-feature on C by T-to-C movement, and in such cases the overt complementizer *that* appears as a C head (which in itself is a manifestation of T-to-C movement), as in (16a). The second available scenario is one according to which the T-feature on C is satisfied by the subject movement to Spec,CP. The result of this scenario is given in (16b).

- (16) a. ... [CP [T that]<sub>j</sub>+[C,<sub>u</sub>T]] [IP Sue will<sub>j</sub> buy the book]]  
 b. ... [CP [Sue,<sub>u</sub>T]<sub>j</sub> [C,<sub>u</sub>T]] [IP t<sub>Sue</sub><sub>j</sub> will buy the book]]

The arguments in Pesetsky and Torrego (2001), among other facts, are based on the *that*-omission asymmetry in English which is presented in example (17) below.

- (17) a. [That Sue will buy the book] was expected by everyone.  
 b.\*[Sue will buy the book] was expected by everyone.

This paradigm shows that sentential subjects lacking an overt complementizer are prohibited in English. The explanation proposed by Pesetsky and Torrego (2001) stems from the fact that if *that* is absent in the clause, T-to-C movement did not take place, and the T-feature on C was satisfied by subject movement (similar to (16b)). Therefore, there are no instances of interpretable T in the CP system of the embedded clause, and it cannot be attracted by the matrix T, as the matrix T would not be able to satisfy its properties. This would render the sentence (17b) ungrammatical. If T-to-C movement takes place and the overt complementizer *that* is present (as in (16a)), T on the embedded CP is the actual tense of the sentence, is interpretable, and does not delete. That allows the attraction of the entire clause by the matrix T, and therefore sentential subjects with the overt complementizers are allowed. Now turning to the situation in Russian, we can observe that the facts differ from English. Consider example (18):

- (18) \*[ Čto Ivana posadili v t'ur'mu] nikogo ne udivilo.  
           that I. put in jail nobody not surprise  
           ‘That Ivan was put to jail didn’t surprise anybody’

As can be seen from example (18), preposed indicative clausal subjects are prohibited in Russian. Applying the same line of reasoning as before, we can argue that *čto* does not have properties similar to the English complementizer *that*: Russian clauses with the overt *čto* can not raise to the Spec,TP position and check features of T. This might serve as evidence that C in Russian lacks T-feature and the Russian *čto* is not an instantiation of T-features moved to C.

Taking the facts above as evidence for the lack of T-to-C movement in Russian indicatives, one question remains: what is a structural position of the Russian complementizer? Adopting the theory of Landau (2007), which states that only categories with phonologically overt heads can be

selected as subjects, we can conclude that the actual location of the indicative complementizer *čto* in Russian is Spec,CP. Following Landau's reasoning, if *čto* were located in the head position of CP, Russian would allow clausal subjects, as does English for clauses with overt *that*.

Note that the analyses by Pesetsky and Torrego (2001) and Landau (2007) actually complement each other, predicting that the head position in the CP is empty in Russian indicative clauses.

Now I will turn to the nature of the subjunctive complementizer *čtoby*. This element can be treated as morphologically complex, consisting of *čto* and a particle *by*. The particle *by* in Russian can appear separately from *čto*, as in the examples in (19):

- (19) a. Pošel *by* ty v kino!                      b. S kem *by* vypit' vodki?  
 Go PART you to cinema                      With whom PART drink vodka  
 'Why don't you go to the movies?'                      'With whom can I drink vodka?'

These examples show that *by* usually occurs in the second position of the clause, and can follow a wide variety of elements, such as an imperative (19a) or a *wh*-element (19b). Assuming that *wh*-elements are located in Spec,CP, it seems plausible that *by* occupies the head position within the CP-domain. Furthermore, clauses with *by* do not have a fixed temporal interpretation, and are often *irrealis*. Thus it would be tenable to postulate the uninterpretable unvalued T-feature  $\langle uT -val \rangle$  on *by*.

#### 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. 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). That means that in the sentences in (1) and (2), the verb *pročitala* 'read' comes from the lexicon embedded with different features (even though those two forms are morphologically indistinguishable): in sentence (1) it bears a  $\langle uT -val \rangle$  feature, whereas in the sentence (2) it bears a valued instance of the T feature  $\langle uT +val \rangle$ . The fact that the subjunctive form of the verb is identical to the past tense form in Russian is an idiosyncrasy. This proposal is summarized in (20):

- (20) *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.

##### 4.1 Indicative Clauses

By the Subjunctive parameter (20), 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 (2)), 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 the 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 the derivation stops. The resulting structure of the embedded TP before the final valuation is given in (21).



(21)  $[_{TP} \text{Maša}_i [_T T_{\langle iT -val \rangle [1]} \text{FF}(\text{Maša})_{\langle uT -val \rangle [1]}] [_{vP} t_i [_v v \text{pročitala}_{\langle uT +val \rangle [1]}] \dots ]$

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 *čto* ‘that’, the lower CP phase is completed with no elements but *čto* 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 (20), I claim that the subjunctive verb comes from the lexicon with the unvalued T feature  $\langle uT -val \rangle$ . I would also assume that *by* also comes from the lexicon endowed with an uninterpretable unvalued  $\langle uT -val \rangle$  feature. Now let us 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 instances of the same feature. 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(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 *by* in the C-head position, and *čto* in Spec,CP.

The T-feature of *by* is unvalued, and therefore must probe down to find its goal. The first goal it finds is a T+FF(emb. subj.) complex with an unvalued T-feature. Feature-sharing Agree takes place, and the instances of the T-feature on *by*, 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 *by* and the resulting configuration from the completion of the embedded CP-phase is given in (22), where the index [1] shows which T-features are instances of the same feature.

(22) a.  $[_{CP} \text{čto } \mathbf{by}_{\langle uT -val \rangle [1]} + \mathbf{T}_{\langle iT -val \rangle [1]} + \mathbf{FF}(\mathbf{emb. subj.})] [_{TP} \text{DP}_{\text{emb}} \mathbf{v+V}_{\langle uT -val \rangle [1]}] \dots$

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 is at the edge of the CP-phase (bolded in (22)), and therefore remains 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 the matrix subject DP with the instance of  $\langle uT -val \rangle$ . The verb in subjunctive constructions selects a CP headed by *by*. This selectional property would result in the featural complex, which by that point in the derivation is present on *by*, 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 the embedded CP and adjoined to the V, and further to v, still does not have a value for its T-feature<sup>1</sup>. The configuration at this stage of the derivation is given in (23). Here the T-features that came from the embedded clause are marked with [1], while all other instances of T-features at that point did not enter the Feature sharing version of the Agree relationship.

(23)  $[_{vP} \text{DP}_{\text{high}}_{\langle uT -val \rangle} \mathbf{v+V}_{\langle uT +val \rangle} + \mathbf{C}_{\langle uT -val \rangle [1]} + \mathbf{T}_{\langle iT -val \rangle [1]} + \mathbf{FF}(\mathbf{emb. subj.})] \dots [_{CP} \text{čto } \mathbf{by} \dots]$

At the next stage, the matrix T, endowed with  $\langle iT -val \rangle$  feature, is merged into the structure. It probes down, finds the T-feature of the matrix subject, and Agrees with it, resulting in a shared feature between it and the matrix subject DP. 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

<sup>1</sup> I will not go into details of why *by* is pronounced in the embedded clause. The solution is based on the fact that it has to encliticise to the element *čto*, located in the Spec,CP position of the embedded clause.

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 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, (24).

$$(24) [_{TP} T_{\langle iT +val \rangle [1]} + FF(\text{matr. subj.}) [_{vP} DP_{\text{matr} \langle uT +val \rangle [1]} v + V_{\langle uT +val \rangle [1]} + C_{\langle uT +val \rangle [1]} + T_{\langle iT +val \rangle [1]} + FF(\text{emb. subj.}) \dots [_{CP} \text{čto by} \dots$$

### 4.3 Russian Obviation Explained

I propose that obviation constitutes a violation of Principle B. As I mentioned in (15), the formal feature complex can enter into binding relations (Watanabe, 2000; Branigan, 2000). In the 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.

- (25) a. Volodja<sub>i</sub> skazal čto on<sub>i/j</sub> poceloval Nadju  
 V. said that he kissed N.  
 ‘Volodja<sub>i</sub> said that he<sub>i/j</sub> kissed Nadja.’  
 b.\*Volodja<sub>i</sub> xočet čtoby on<sub>i</sub> poceloval Nadju  
 V. wants that-SUBJ he kissed N.  
 ‘Volodja wants to kiss Nadja’

The analysis of the indicative embedded clauses above provides an explanation for the lack of obviation effects in the indicative sentence (3b), repeated in (25a). In (25a) 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. Therefore, no violation of Principle B arises, and the example is grammatical. Now I will consider the obviation phenomenon in the case of subjunctive embedded clauses. The relevant example is repeated in (25b). In this example, by the time the matrix vP phase is completed, example (25b) has a structure shown in (26):

$$(26) [_{vP} \text{Volodja}_i v + V + \dots + FF(\text{he}_i) [_{CP} \dots [_{TP} \text{he} \dots$$

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, violating Principle B. Now consider a situation in which the embedded clause has a dative subject (27).

- (27) Volodja<sub>i</sub> xočet čtoby emu<sub>i</sub> 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, which allows raising of the embedded nominative subject’s formal features to the position in the matrix clause. In the absence of nominative case, no such raising is possible because of the lack of T-features. Therefore, when the subject of the embedded clause is dative, its features do not adjoin to the embedded T, and thus do not raise into the matrix clause. That results in FF of dative subjects staying within the embedded TP, and thus Principle B is not violated in sentences with embedded dative subjects.

### 4.4 Scrambling and *Wh*-movement

Having explained the difference between the subjunctive and indicative clauses with respect to the phenomenon of subject obviation, I will return to the issues of scrambling and *wh*-movement.

The relevant examples were given in (5) and (6). They show that long-distance subject scrambling is possible when the embedded clause is subjunctive (even though the corresponding sentences are degraded) (5a), and banned if the embedded clause is indicative (6a); however, object scrambling is allowed out of both indicatives and subjunctives, as shown in (5b) and (6b).

First, I will show how the ECP (Rizzi, 1990, 2006; Rizzi and Shlonsky, 2007) is responsible for the availability of the object scrambling. Whichever version of the ECP is adopted, objects are allowed to move freely. The deviance of the scrambled sentences in (5a,b) and (6b) is reminiscent of the English subjacency violations, discussed in Rizzi (1990) based on examples cited in (28).

- (28) a. \*Which student do you wonder [how [*t* could solve the problem *t*]]  
 b. \*How do you wonder [which problem [PRO to solve *t t*]]  
 c. ?Which problem do you wonder [how [PRO to solve *t t*]]

According to Rizzi, the contrast between (28a) and (28b) on the one hand and (28c) on the other can be explained by the nature of violations involved. Example (28a) violates the ECP, since the subject trace is not properly governed; in (28b) the adjunct trace is not connected to the operator. Both of these violations are crucial, and render the sentences ungrammatical. However, in example (28c) the ECP is not violated, and the only problem with this example is subjacency, since the *wh*-phrase *which problem* crosses another *wh*-phrase, in this case *how*.

Similar considerations can be made for explaining the deviance of examples (5a,b) and (6b). As I argued above, Russian *čto* is housed in the Spec,CP position, rather than in C itself. Therefore, any extraction out of such clauses with an occupied Spec,CP would necessarily generate subjacency violations, which trigger the corresponding sentences as mildly deviant.

As for the scrambling of subjects, I will resort to the notion of Criterial Freezing, introduced in Rizzi (2006) and Rizzi and Shlonsky (2007). They assume that an element which is moved to a position associated with some interpretive property, which they call a criterial position, becomes frozen in place. Rizzi and Shlonsky argue that the subject position (Spec, TP) is also a criterial position, and once an element is moved into it, it remains frozen. Further, they argue in detail that in order to be able to move thematic subjects, the EPP requirement of T must be satisfied by some other element. Adopting the Criterial Freezing condition from Rizzi and Shlonsky (2007), there is no need for the objects to satisfy any criteria, and they are free to move out of their base-generated position. The mild deviance of the examples with object scrambling is of the same nature as subjacency violations in English.

In order to account for the difference between subjunctive and indicative clauses with respect to subject scrambling, I return to the derivation of the embedded subjunctive clause. Recall that in the indicative embedded clauses, the C position is phonologically empty (*čto*, as argued above, is located in the Spec,CP position). Furthermore, the embedded subject ends up in the Spec,TP position. Such a subject position is criterial (following Rizzi and Shlonsky, 2007), and this explains the unavailability of subject scrambling in the case of indicative embedded clauses.

What remains to be answered now is why subject scrambling is possible out of subjunctive embedded clauses. As I mentioned before, *čtoby* in Russian subjunctives exhibits different properties from the indicative *čto*. I analyzed *čtoby* as a complex consisting of *čto*, located in Spec,CP, and the actual complementizer *by*, which occupies the C position. The crucial question at this point is what satisfies the phonological subject EPP condition on the embedded Spec,TP. Following the theory proposed in Rizzi and Shlonsky (2007) for the difference between French complementizers *que/qui* I will argue that similar explanation applies to the Russian case. Rizzi and Shlonsky claim that the EPP on the embedded clause in French can be satisfied by the expletive *-i*, assuming that the French complementizer *qui* consists of *que+i* (following Taraldsen, 1998).

A similar mechanism, if applied to Russian, would allow satisfaction of the subject EPP by the *by* element, possibly along the lines proposed in Chomsky (2008), where features of C percolate to T affecting its properties. (Notice that this strategy is impossible in indicatives, since there is no overt element in the head of CP in such case.) Now, as the subject is not frozen, it is free to move, and therefore the subject scrambling will only trigger a mild subjacency violation.

Now I will turn to the asymmetries with long *wh*-extraction in Russian. As I showed previously in section 2.4, the long *wh*-movement is similar in its properties to long-distance scrambling. It disallows *wh*-extraction of subjects of indicative clauses, and gives rise to mild subjacency ef-

facts with *wh*-extraction of subjects out of subjunctive clauses and objects of both indicative and subjunctive clauses (see (8) and (9)). Given the same nature of violations and same restrictions on both *wh*-extraction and long-distance scrambling, I argue that my analysis of scrambling asymmetries can be extended in a straightforward way to the case of *wh*-extraction.

## 5 Conclusion

In this paper I explored the structure of subjunctive clauses in Russian, 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 the featural level. I further argued that the structural position of Russian *čto* is Spec,CP, and demonstrated how the asymmetries between the extraction out of subjunctive and indicative clauses can be explained using Criterial freezing approach by Rizzi and Shlonsky (2007).

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