The Nature of Russian Subjunctive Clauses

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1 Introduction

In this paper I present several syntactic asymmetries between indicative and subjunctive clauses in Russian, some of which are previously unnoticed, and propose a unified analysis, accounting for them. 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. This contrasts with the situation when the embedded clause is indicative, where such a coreference is possible. 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 in case of subjunctive embedded clause. I further demonstrate, that there are no asymmetries with respect to object extraction: it is allowed out of both indicative and subjunctive clauses. The next puzzle I consider is the fact long-distance scrambling out of subjunctives can establish new binding relations, while no such new binding relations can be established in case of scrambling out of indicative clauses. In this paper I propose a unified account for these asymmetries between indicative and subjunctive embedded clauses.

The organization of the paper is as follows. In Section 2 I present preliminary data on Russian subjunctives and above mentioned puzzles associated with the syntactic asymmetries between indicatives and subjunctives in detail. Section 3 introduced the theoretical framework and assumptions used for the analysis, discussing feature sharing version of Agree by Pesetsky and Torrego 2004, feature approach to binding and relations of binding to Move F, following Watanabe 2000 and Branigan 2000. Also, in this section I make a proposal about the structural position of Russian complementizers, claiming that in indicative clauses the "complementizer" is in fact housed in Spec,CP, while in subjunctives the complementizer is morphologically complex, with a part of it occupying Spec,CP position, and another part being C. In section 4 I show how indicative and subjunctive clauses are derived in Russian. Section 5 explains the asymmetries between indicative and subjunctives based on the theoretical framework outlined in Section 3. Section 6 briefly discusses the obviation phenomenon beyond Slavic, and sketches how my analysis might be extended to the languages, lacking obviation effects in subjunctives (such as Romanian, Greek, Bulgarian). Section 7 concludes the paper.

2 Puzzles of Russian Subjunctive and Indicative Clauses

2.1 Preliminary Data on Russian Subjunctive

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 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"

A few remarks about the interpretation of subjunctive sentences like the ones mentioned above in (1a) are in order. 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)). Therefore, based on this observation, it is clear that there must be "communication" between the matrix and embedded clauses in order to get the corresponding interpretation. The two clauses must communicate in order for the lower subjunctive clause to receive its temporal anchoring. The precise nature of this "communication" will be clear from the analysis, which I will propose later in the paper.

2.2 The Obviation Phenomenon

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 (3) (Ibid.):

(3) Obviation:[1]
    (a) Volodja$_i$ xočet   čtoby   on$_{*i/j}$ potseloval   Nadju
        V.   wants   that-subj he   kissed   N.
        'Volodja wants to kiss Nadja.'

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[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.

    (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 (3a), 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 (3b), coreference between the matrix and embedded subjects is possible. As can be seen from the examples (4), 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:

(4) (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$_{i/j}$.'

I assume that binding relations, involving locality (such as Principles A and B of the binding theory) are evaluated by phases (Johnson 2007, cf. Chomsky 2001): The phase (especialy CP), constitutes a binding domain for anaphors and pronouns. Specifically, elements that are "buried" inside a completed phase (not on the phase edge) are inaccessible to binding from elements outside the phase. Accessible elements (those that can be bound) are those that are either on the phase edge (e.g. specifier position), or are the head of the phase. It is proposed that elements in only these positions are accessible from outside the phase.[2]

When the binder is the subject of the matrix clause, it cannot bind inside the lower clause. This results from the fact that at the point at which the binder is introduced in the derivation, the lower CP-phase is already completed. Establishing binding relations between the matrix subject and the element within the embedded CP would require looking inside the completed phase, and thus is ruled out.

This assumption can easily be adopted for the cases of indicative embedded clause like those in (3b) and (4b). In (3b) the pronominal subject *on* 'he' is within the lower CP-phase, and does not occupy its edge. Therefore it cannot be bound by the matrix subject. Similarly, in (4b) the pronominal object *ego* 'him' is within the lower CP-phase, and also cannot be bound by the matrix subject. Therefore, there is no violation of Principle B in either of these examples.

However, the case of subjunctive embedded clauses (3a) shows that the explanation is not so straightforward. In (3a), the pronominal element *on* 'he' is within the embedded CP, and not on its edge, and therefore straightforward application of Principle B would not rule out this example as ungrammatical. However, one can see that coindexation between the matrix and embedded

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[2] The binding domains are often considered to be TPs and not CPs or vPs. Here I assume that based on Phase Impenetrability Condition (Chomsky 2000), it is more reasonable to explore phase approach to binding. Cf Johnson 2007 for in depth discussion of such an approach.

subjects is impossible. Further, one has to explain the contrast between (3a) and (4a): why the former example is ungrammatical under coreference reading, and in the latter there are no violations even in case of coreference.

The next example provided below (taken from Avrutin and Babyonyshev, 1997) demonstrate the absence of subject obviation in Russian with respect to matrix objects.

(5) Volodja ugovoril Nadju$_i$ čtoby ona$_i$ poexala v Evropu
    V. convinced N. that-subj she go to Europe
    'Volodja convinced Nadja to go to Europe.'

In example (5) the pronominal subject of the embedded subjunctive clause is coreferenial with the object of the matrix clause. Grammaticality of this example is predicted under the assumption that Principle B is (anti)subject oriented, and therefore object antecedents never violate it regardless of the domain.

Another interesting data comes from consideration of dative experiencer subjects in Russian.

(6) Volodja$_i$ xočet čtoby emu$_i$ bylo xorošo
    V. wants that-subj he-dat was good
    'Volodja wants to feel good'

In example (6) the experiencer of the embedded subjunctive clause is a dative marked pronoun *emu* 'he-dat'. Bailyn, 2004 has proposed that in dative subject constructions the dative pronominal subjects are located in the Spec,TP position. For instance, he argues that dative preverbal experiencers can serve as binders to anaphoric elements, as the contrast in (7) shows. Further, raising of the dative experiencer to a preverbal position can repair violations of Principle B, as shown in (8), and feed violations of Principle C (9).

(7) (a)???Sebja$_i$ žal' Maše$_i$
        self-acc sorry M.-dat
        'Masha feels sorry for herself'
   (b) Maše$_i$ žal' sebja$_i$
     M.-dat sorry self-acc
     'Masha feels sorry for herself'

(8) (a) *Etot rebenok$_i$ nravitsja ego$_i$ roditeljam
     This child-nom like his parents-dat
     'This child$_i$ pleases his$_i$ parents'
   (b) ?Ego$_i$ roditeljam nravitsja etot rebenok$_i$
     his parents-dat like this child-nom
     'His$_i$ parents like this child$_i$'

(9) (a) Znakomye Ivana$_i$ nravjatsja emu$_i$
     friends-nom of I. like him-dat
     'Friends of Ivan$_i$ please him$_i$'

(b) *Emu$_i$ nravjatsja   znakomye   Ivana$_i$
      he-dat   like   friends-nom of I.
      'He$_i$ likes friends of Ivan$_i$'

Under assumptions above about the structural position of dative experiencer, this example presents a surprising contrast with the case of subject obviation in (3a). Both of these examples ((6) and (3a)) 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 are possible.

2.3 Preliminary data on Scrambling

In this section I will demonstrate some previously unmentioned asymmetries between the possibility of long-distance scrambling in Russian indicative and Russian subjunctive clauses. In the first part of this section I will demonstrate the previously mentioned data based on Müller and Sternefeld, 1993, which do not mention such asymmetries. The second part of this section presents new data demonstrating that scrambling out of subjunctive clauses is in general much less restricted than scrambling out of indicative clauses.

Long distance scrambling as exemplified in (10) has long been an object of study in the context of East-Asian languages, including Japanese and Korean.

(10) *Long Distance scrambling in Japanese:*
   (a) Hanako-ga [Taroo-ga   sono   hon-o   katta   to]   omotteiru
        H.-nom   T.-nom   that   book-acc   bought COMP think
        'Hanako think that Taroo bought that book'
   (b) Sono   hon-o$_i$ Hanako-ga   [Taroo-ga t$_i$ katta   to]   omotteiru
        that   book-acc   H.-nom   T.-nom   bought COMP think
        'That book$_i$, Hanako think that Taroo bought t$_i$'

In long distance scrambling a constituent of the embedded clause is moved into the higher clause. In the example above, the base order is illustrated in (10a), and the scrambled order results from dislocating the constituent *sono hon-o* 'that book' to the matrix clause as shown in (10b). Saito, 1992, 2003, 2005 outline the major properties of the Japanese long-distance scrambling, considering the property of radical reconstruction to be the defining characteristics of Japanese scrambling: at LF, the dislocated constituent is interpreted in its original position within the embedded CP. The observation that radical reconstruction is a key property of Japanese scrambling is based on a number of tests, including binding tests, observation of quantifier scope interaction, weak crossover effects, and others.

However, the phenomenon of long-distance scrambling is not peculiar to the East-Asian languages. Russian examples involving the dislocation of a constituent of the embedded clause to the matrix clause are cited in Müller and Sternefeld, 1993 based on the work of Zemskaja, 1973. As I will argue, the examples from the works mentioned above do not reveal the entire

picture. In this section I will outline the basic facts of Russian scrambling, and draw several generalizations, which have so far gone unnoticed and do not have an explanation in the current literature.

The classic examples of Russian long-distance scrambling is given below in (11a,b) following Müller and Sternefeld, 1993 (also cited in Boškovic and Takahashi, 1998 and Bailyn, 2001). The unscrambled versions of these sentences are presented in (11c,d) respectively.

(11) *Subject scrambling, interrogative matrix CP, indicative embedded CP:*

    (a) ?Ty doktor$_i$ videla   kogda   t$_i$ pod'ezžal?
          you doctor   saw   when   came
          'Did you see when the doctor was arriving?'

    (b) ?Ty doktor$_i$ videla   čto t$_i$ pod'ezžal?
          you doctor   saw   that   came
          'Did you see that the doctor was arriving?'

    (c) Ty videla   kogda   doktor pod'ezžal?
          you saw   when   doctor came
          'Did you see when the doctor was arriving?'

    (d) Ty videla   čto   doktor pod'ezžal?
          you saw   that   doctor came
          'Did you see that the doctor was arriving?'

The examples in (11) illustrate the scrambling of the subject of the embedded non-subjunctive clause to the matrix clause. As we see, all of these examples are matrix yes-no questions with pronominal subjects, and scrambling is allowed in such an environment. Similarly, long-distance object scrambling from non-subjunctive questions is also allowed, as exemplified in (12). As before, the unscrambled sentences are presented in (12c,d):

(12) *Object scrambling, interrogative matrix CP, indicative embedded CP:*

    (a) ?Ty soseda$_i$ videla kak   Petr   bil t$_i$?
          you neighbor   saw   how   P.   beat
          'Did you see how Peter beat the neighbor?'

    (b) ?Ty noski$_i$ videla   čto Petr kupil   t$_i$?
          you socks   saw   that P.   bought
          'Did you see that Peter bought socks?'

    (c) Ty videla   kak   Petr   bil   soseda?
          you saw   how   P.   beat   neighbor
          'Did you see how Peter beat the neighbor?'

    (d) Ty videla   čto Petr kupil   noski?
          you saw   that P.   bought socks
          'Did you see that Peter bought socks?'

The subjunctive counterparts of the examples above, which show scrambling from the embedded clause, are also grammatical as shown in (13) and (14)

(13) *Subject scrambling, interrogative matrix CP, subjunctive embedded CP:*
   ?Ty doktor$_i$ xočeš   čtoby   t$_i$ cašče   priezžal?
   you doctor   want   that-subj   more often   arrive
   'Do you want for doctor to arrive more often?'

(14) *Object scrambling, interrogative matrix CP, subjunctive embedded CP:*
   ?Ty soseda$_i$ xotela   čtoby   Petr   pobil   t$_i$?
   you neighbor   want   that-subj   P.   beat
   'Did you want Peter to beat the neighbor?'

The examples in (13) and (14) above are yes-no questions, where the matrix verb *xotet'* 'to want' selects a subjunctive clause, introduced by the subjunctive complementizer *čtoby* (which is distinct from the ordinary non-subjunctive complementizer *čto*).

All the data presented above is compatible with the data from Müller and Sternefeld, 1993. However, this is just a part of the entire picture. As one might notice, all the grammatical examples of long-distance scrambling in Russian so far were given in interrogatives.

In what follows, I demonstrate that the situation with declaratives shows a surprising asymmetry with respect to long-distance scrambling in subjunctive/indicative embedded clauses.

(15) *Declarative matrix CP, subjunctive embedded CP:*
   (a) ?Ja doktor$_i$ xoču   čtoby   t$_i$ cašče   priezžal.
        I   doctor   want   that-subj   more often   arrive
        'I want doctor to arrive more often.'
   (b) ?Ja soseda$_i$ xoču   čtoby   Petr   pobil   t$_i$.
        I   neighbor   want   that-subj   P.   beat
        'I want Peter to beat the neighbor.'

(16) *Declarative matrix CP, indicative embedded CP:*
   (a) *Ja doktor$_i$ videl   čto   t$_i$ pod'ezžal.
        I   doctor   saw   that   arrive
        'I saw that doctor arrived.'
   (b) ?Ja soseda$_i$ videl   čto Petr   pobil   t$_i$.
        I   neighbor   saw   that P.   beat
        'I saw that Peter beat the neighbor.'

As one can see from (15) and (16b), 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 indicative embedded clause; however long-distance subject scrambling is prohibited from declarative clause with indicative embedded clauses, as shown in (16a).

2.4 Binding

In this section I present the data on Russian scrambling related to binding, and demonstrate interesting asymmetries between indicative and subjunctive clauses. In the unscrambled sentences an anaphoric element (*sebja* in (17)) in the object position of the embedded clause can only be coindexed with the embedded clause subject, regardless of whether the embedded clause is subjunctive or indicative:

(17) *Binding: unscrambled case*

    (a) General$_i$ xočet čtoby   ad'jutant$_j$ narisoval   sebja$_{*i/j}$
          general wants that-subj aide   draw   himself
          'The general$_i$ wants the aide$_j$ to draw himself$_{*i/j}$.'   [Subjunctive]
    (b) General$_i$ videl   čto ad'jutant   narisoval   sebja$_{*i/j}$
          general saw   that aide   drew   himself
          'The general$_i$ saw that the aide$_j$ drew himself$_{*i/j}$.'   [Indicative]

The examples above show no distinction between indicative and subjunctive embedded clauses with respect to Principle A of binding theory. The scrambled counterparts of the examples in (17), however, show a different pattern.

(18) *Binding: scrambled case*

    (a) Ty$_i$ [svoego$_{*i/j}$ soseda]   slyšala čto Petr$_j$ ubil   t?
          you self's   neighbor   heard   that P.   killed
          'Have you$_i$ heard that Peter$_j$ killed self$_{*i/j}$'s neighbor?'   [Indicative]
    (b) Ty$_i$ [svoego$_{i/j}$ soseda]   xoceš čtoby   Petr$_j$ ubil   t?
          you self's   neighbor   want   that-subj P.   killed
          'Do you$_i$ want Peter$_j$ to kill self$_{i/j}$'s neighbor?'   [Subjunctive]

In the examples in (18), the constituent *svoego soseda* 'self's neighbor' which contains the anaphoric element, is scrambled from the object position of the embedded clause to the matrix clause. Even though in the unscrambled position the anaphor could only be bound by the subject of the embedded clause, the scrambled form shows a wider range of possible binders depending on the mood of the embedded clause. If the embedded clause is subjunctive as in (18b), the matrix subject can also serve as a possible antecedent of the anaphor, and the corresponding sentence is two-ways ambiguous. When the embedded clause is not subjunctive (as in (18a)), the only possible antecedent for the anaphoric element remains the subject of the embedded clause, and the sentence is unambiguous.

(19) shows another examples that illustrate the same point:

(19) *Binding: scrambled case*

    (a) *Vy   [drug   druga] slyšali čto Petr   narisoval   t?
          you.pl   each other   heard   that P.   drew
          'Did you two$_i$ hear that Peter draw each other$_i$?'
    (b) Vy   [drug   druga] xotite čtoby   Petr   narisoval   t?
          you.pl   each other   want   that-subj P.   draw
          'Do you two$_i$ want Peter to draw each other$_i$?'

The anaphoric element *drug druga* 'each other' needs a plural antecedent. The sentence in (19a) is ungrammatical. This results from the unavailability of a plural antecedent, since the singular *Petr* is the only possible binder; as we saw in (18), the antecedent of a scrambled constituent in an indicative question can only be the embedded subject. However, the sentence (19b) is grammatical – it asks whether each member of a pair of people wants Peter to draw the other member. The low binder for the anaphoric element is infelicitous for the same reasons as described above for (19a).

From the data above in this section we saw that long-distance scrambling can feed new binding relations for Principle A, involving the subject of a matrix clause as a binder for a scrambled anaphor originating in the embedded clause. Similar effects arise with respect to Principle B. Consider the contrast in (20):

(20) (a) Ivan$_i$ xočet   čtoby   Petr$_j$ poceloval   ego$_{i/*j}$ ženu
          I.   wants   that-subjP.   kiss   his   wife
          'Ivan$_i$ wants Peter$_j$ to kiss his$_{i/*j}$ wife'
     (b) Ivan$_i$ ego$_{*i/*j}$ ženu   xočet   čtoby   Petr$_j$ poceloval
          I.   his   wife   wants   that-subjP.   kiss
          'Ivan$_i$ wants Peter$_j$ to kiss his$_{*i/*j}$ wife'

The example in (20a) is the unscrambled counterpart of the example in (20b), where the embedded object underwent long-distance scrambling to the matrix clause. In the unscrambled example (20a), the pronoun *ego* 'his' can be coreferential with the matrix subject *Ivan*, since Principle B is not violated in this configuration. The fact that the pronoun and its binder are located in different clauses, and therefore separated by the phase boundary, accounts for this fact under assumption that phases serve as binding domains. Notice, that the possibility of coreference disappears when the embedded subject is scrambled to the position in the matrix clause, as in example (20b). Long-distance scrambling creates a configuration where the matrix subject and scrambled object are located within the same binding domain, and therefore gives rise to Principle B violation.

2.5 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, first observed for English, was originally mentioned by Perlmutter, 1971, and requires *that* introducing a CP from which the subject has been extracted to be obligatorily absent. Notice, however, that in the case on non-subject *wh*-extractions, *that* can be optionally present. This asymmetry (for English) is demonstrated in (21). (21a) shows the absence of complementizer intervention effects for object *wh*-extraction, while from (21b) it is clear that the complementizer must be absent in order to *wh*-extract the subject of the embedded clause.

(21) 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 that the similar effects for Russian exist, and I will outline their distribution. First, consider the cases of *wh*-extraction out of indicative clauses in (22).

(22) Wh-*extraction, indicative embedded clauses*
  a. *Kto   ty dumaeš čto t   vypil   vsjo   pivo?
      who   you think   that   drank   all   beer
      'Who do you think drank all beer?'
  b. ?Kogo ty dumaeš čto Ivan   narisoval   t   na zabore?
      what   you think   that I.   drew   on fence
      'Who do you think Ivan drew on the fence?'

As one can see, the asymmetries of the similar type as in English, i.e. subject/object asymmetries with respect to *wh*-extraction across complementizer are observed here. In the presence of *čto*, only the embedded object, and not the embedded subject can be extracted, as examples (22a) and (22b) demonstrate. Notice, that the sentence in (22b) is mildly deviant, exhibiting the "flavor" of subjacency violation, and is not accepted by all speakers as perfect. However, the sharp contrast between it and the example in (22a), where the embedded subject is *wh*-extracted, is perceived by the majority of Russian speakers.

Now, we can consider example (23), showing the *wh*-extraction out of subjunctive clauses.

(23) 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?'

In the example (23a), the subject *wh*-element *kto* 'who' is raised into the matrix clause from the embedded subjunctive clause. The example (23b) shows the *wh*-extraction of the object *wh*-element *čto* 'what'. The striking difference between examples in (23), showing the patterns of *wh*-extraction from Russian subjunctive clauses, and examples in (22), demonstrating extraction out of indicative clauses, lies in a fact that the extraction out of subjunctive clauses does not show any subject/object asymmetries: both examples (23a,b) are grammatical, and show only minor subjacency violations.

This fact that subjunctive embedded clauses allow practically free extraction of *wh*-elements, is similar to the facts about Russian long-distance scrambling, described in section 2.3, where I showed that long-distance scrambling of both subject and object out of embedded subjunctive clauses is allowed quite freely, triggering the resulting sentences as only mildly deviant, while the subject scrambling out of indicative clauses gives rise to ungrammaticality.

2.6 Is Subjunctive CP a Phase?

By considering the examples of obviation from Section 2.2 (such as the contrast in (3)), one might suggest that the subjunctive CP in Russian does not behave as a phase (or that the CP projection is absent), since the matrix subject does remain accessible to binding from outside the phase. This assumption would readily account for the case of subject obviation (3a) and its contrast with (3b).

However, there are a few major problems with this account of obviation. The lack of obviation effects with the dative subjects as demonstrated in example (6) remains unexplained under this approach. If a subjunctive clause is not a phase, *emu* in (6) should be bound by the matrix subject, which should give rise to a Principle B violation and ungrammaticality would be predicted. However, the example (6) is grammatical.

In addition, the following set of examples provided in (24) further complicate the phase approach to the obviation phenomenon:

(24) (a) Volodja$_i$ xočet   čtoby   ego$_i$ žena   poexala v   Evropu
        V.   wants   that-subj his   wife   go   to Europe
        'Volodja$_i$ wants his$_i$ wife to go to Europe.'
     (b) *Volodja$_i$ xočet   čtoby   svoja$_i$ žena   poexala v   Evropu
        V.   wants   that-subj self's wife   go   to Europe
        'Volodja$_i$ wants self$_i$'s wife to go to Europe.'

In example (24a) the possessive pronoun *ego* 'his', which is modifying the embedded subject, is coreferential with the matrix subject. In example (24b), the use of anaphoric possessive *svoja* 'self's' gives rise to ungrammaticality. If we again assume here that the CP is not a phase, the example in (24a) should incur a violation of Principle B, because the matrix subject *Volodja* binds the possessive pronoun coreferential with it, located within the subject of the embedded clause. On the contrary, the example in (24b) should be grammatical, since the anaphoric possessive *svoja* 'self's' is bound by the matrix subject, and there should be no violation of Principle A. However, these predictions are clearly wrong: (24a) is grammatical, while the sentence in (24b) is ungrammatical.

Thus I conclude that postulating that subjunctive CP lacks phase properties does not solve problems outlined above, and this suggestion should not be adopted.

2.7 Summary

The table in (25) summarizes the data discussed in the previous sections:

(25) Summary of the presented data:

	Subjunctive	*Indicative*
Subject Obviation	Yes	No

Scrambling (matrix interrogatives)	Ok	Ok
Subject LD Scrambling (matrix declaratives)	Ok	*
Object LD Scrambling (matrix declaratives)	Ok	Ok
Subject wh-extraction	Ok	*
Object wh-extraction	Ok	Ok
Binding without scrambling	unambiguous (emb.)	unambiguous (emb.)
Binding with scrambling	ambiguous	unambiguous (emb.)

To my knowledge, there is no analysis which can account for all the data presented above in this section. In the next section 3 I introduce the framework which I adopt for explaining the asymmetries described in this section. Sections 4 and 5 show how adoption of this framework allows for account of the differences between subjunctive and indicative clauses with respect to observed asymmetries. I will present an analysis explaining the asymmetries, observed in indicative vs. subjunctive clauses in Russian, which is based on the distinction between these two types of clauses.

3 Theoretical Framework with Applications to Russian

My analysis of the facts demonstrated in the previous section is based on the adoption of a few recent theoretical developments (including Pesetsky and Torrego 2001, 2004, Watanabe 2000, Branigan 2000, and Landau 2007). I will assume that the subjunctive verbs in Russian are endowed with <uT -val> feature, while the indicative ones are specified as <uT +val> (which I call a *Subjunctive Parameter*). The fact that the T-feature of the verb is unvalued would not allow valuation of the T-feature on T of the embedded clause by the embedded verb. This impossibility to value the features within the embedded clause would result in the raising of the embedded T to the matrix clause, where it would get its value from the matrix indicative verb. This approach combined with Watanabe 2000 feature approach to binding allows to explain the obviation effects: Following Pesetsky and Torrego 2001 I assume that the nominative case is an instance of T-feature, and therefore along with the embedded T, formal feature complex of the embedded nominative subject raises to the matrix clause. Now the obviation phenomenon can be analyzed in a following fashion: the raised features of the embedded pronominal subject would end up in a local configuration with the matrix subject, and this will give rise to Principle B violation. This approach also provides an explanation of why dative subjects do not give rise to obviation effects. Since dative case is not an instantiation of T-feature on nominal, formal features of dative subjects do not raise to the matrix clause, and therefore remain within the embedded subjunctive CP-phase.

The scrambling/wh-extraction asymmetries between indicative and subjunctive clauses can be analyzed based on my proposal about the nature of the respective complementizers in Russian. I argue that indicative complementizer *čto* is in fact housed in the Spec,CP position, and that the subjunctive complementizer *čtoby* is morphologically complex with *čto-* part occupying Spec,CP position, and *-by* part being C. This approach explains the mild subjacency status of all

Russian extraction examples (including *wh*-questions and long-distance scrambling). I also argue that particle *by* can satisfy the Subject criterion in the sense of Rizzi 2004, and thus prevents subjects from freezing effects in subjunctives, thus allowing their dislocation.

The details of the analysis sketched above will be given in Sections 4 and 5, while in this section I outline necessary theoretical framework I am going to adopt for my analysis (including Pesetsky and Torrego 2004, Watanabe 2000), and also make some proposals about the application of these theoretical findings to Russian.

3.1 Pesetsky-Torrego, 2004

In my analysis of the indicative/subjunctive distinction in Russian, I follow the framework outlined in Pesetsky and Torrego, 2004, 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 (26).

(26) Agree: Feature Sharing Version (from Pesetsky and Torrego, 2004)

   (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, 2004 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 <*u*F -val> and interpretable and valued <*i*F +val> features. In the new system by Pesetsky and Torrego, 2004, two more types of features are allowed: uninterpretable and valued <*u*F +val> and interpretable and unvalued <*i*F -val>.

Furthermore, Pesetsky and Torrego follow Chomsky, 2001 in proposing that unvalued features act as probes, but differ in allowing interpretable and unvalued <*i*F -val> 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 verb comes from the lexicon with morphologically specified tense. This feature specification allows 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 (27):

(27) 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

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 an object of a transitive verb can adjoin to the complex *v*+V, which is formed by raising of the main verb V and adjoining it to the *v*. The result of this adjunction is a complex *v*+V+FF(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(subject). Adopting the framework of Pesetsky and Torrego, 2004, 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 (28a) gives rise to the configuration in (28b), 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 formal featural complex of the subject being copied to the T-probe. The resulting configuration under this approach is given in (28c).

(28) a. T [$_{vP}$ Subj ...]
   b. [$_{TP}$ Subj [$_T$ [$_T$ FF(T)+FF(Subj)] [$_{vP}$ t$_{subj}$ ...]
   c. [$_{TP}$ Subj [$_T$ FF(T)] [$_{vP}$ t$_{subj}$ ...]

Based on complementizer agreement facts from Dutch, following Zwart, 1997, Watanabe argues that the correct approach is the one resulting in the configuration in (28b). 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 Groeningen dialect of Dutch are given in (29) following Zwart 1997.

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

The structure for the complementizer proposed by Watanabe for Dutch data is given below in (30).

(30)

```
            C
          /   \
        C       T
               /  \
             T    FF(Subj)
```
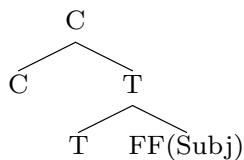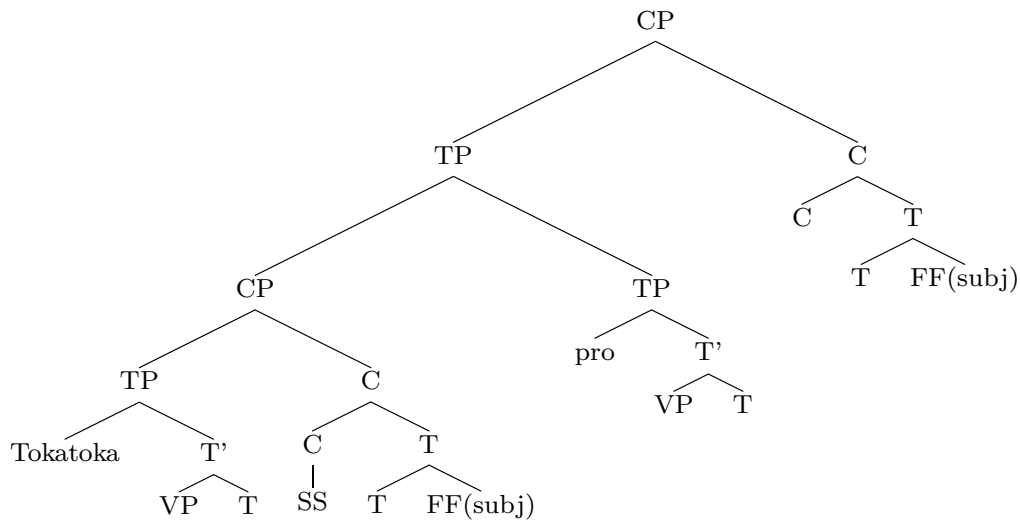
Further, with Watanabe 2000, I argue that nominal features, raised as a consequence of the Agree operation, participate in establishing binding relations. Watanabe uses this approach to account for switch-reference phenomena (Finer 1984, 1985) without postulating referential/binding relationships between C-heads, as in Finer 1984, 1985. The examples of switch-reference from Yavapai (cited in Finer 1985, Watanabe 2000 from Kendall 1975) are given in (31) below.

(31) a.   [tokatoka-č   savakyuva   u-t-k]   čikwar-kiñ
           T.-subj   S.   see-TEMPORAL-SS laugh-COMPL
           'When Tokatoka$_i$ looked at Savakyuva, he$_i$ laughed'
     b.   [tokatoka-č   savakyuva   u-t-m]   čikwar-kiñ
           T.-subj   S.   see-TEMPORAL-DS laugh-COMPL
           'When Tokatoka$_i$ looked at Savakyuva, he$_j$ laughed'

In these examples SS and DS refer to same subject and different subject markers respectively. When the SS marker appears, the subject of embedded clause and the subject of the matrix clause must be coreferential, and in the presence of DS marker, they cannot be. The structure of such sentences, proposed by Watanabe is given in (32) below. Crucially, it is not the relation betweens Cs or Ts which establish referential dependency between the subjects of matrix and embedded clauses. Feature checking between T and the subject results in copying of the subject features to T, and the resulting featural complex later raises to C. In this approach C by itself lacks any referential (anaphoric/pronominal) features; they are in fact properties of raised features of subjects to C, and the referential relationship between subjects holds in fact between two sets of their features.

(32)

```
                              CP
                    ┌──────────┴──────────┐
                   TP                      C
            ┌───────┴───────┐          ┌───┴───┐
           CP               TP         C       T
      ┌─────┴─────┐     ┌───┴───┐          ┌───┴───┐
     TP           C    pro     T'          T    FF(subj)
  ┌───┴───┐   ┌───┴───┐     ┌──┴──┐
Tokatoka  T'  C       T    VP     T
       ┌──┴──┐ │   ┌──┴──┐
      VP     T SS  T    FF(subj)
```

A similar approach to binding operating on formal feature complexes is explored independently in Branigan 2000. He argues that the sentences from Lasnik and Saito 1991, such as in (33) do not involve overt movement of the ECM subject to a higher position in the matrix clause, but Principle A, requiring binding relations between the embedded subject and the anaphor in the main clause, is satisfied by feature adjunction of the embedded subject subject to the matrix verb. According to Branigan, the correct structure of the sentence in (33a) is in fact (33b), and not (33c), as argued by Lasnik and Saito.

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

The arguments against overt movement of ECM subject to a higher position come from the grammaticality of the ECM constructions involving locative inversion in embedded clauses, as shown in (34a) with the structure, proposed by Branigan in (34b).

(34) 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]

To summarize, in both works (Watanabe 2000 and Branigan 2000), 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. Therefore, binding theory operates on sets of formal features, even if their displacement is not accompanied by pied-piping of phonological material. In the subsequent sections of this paper I discuss how this allows us to account for the obviation phenomenon observed in Russian subjunctive clauses, and demonstrate that this property of

Russian subjunctives can be accounted along the same lines as the phenomenon of switch-reference in Yavapai and other languages (Finer 1984, 1985).

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 complementizers *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 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). The resulting structure after this valuation takes place is given in (35a). 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 (35b).

(35) a. ... [$_{CP}$ [$_T$ that]$_j$+[C,u̶T̶] [$_{IP}$ Sue will$_j$ buy the book]]
     b. ... [$_{CP}$ [Sue,u̶T̶]$_j$ [C,u̶T̶] [$_{IP}$ t$_{Sue_j}$ will buy the book]]

Below I investigate the facts from Russian relevant to the setting of the T-to-C parameter in both indicative and subjunctive clauses.

The arguments in Pesetsky and Torrego 2001 are, among other facts, based on the *that*-omission asymmetry in English which is presented in example (36) below.

(36) (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 (35b)). 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 (36b) ungrammatical. If T-to-C movement took place and the overt complementizer *that* is present (as in (35a)), 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 the examples in (37):

(37) (a) *[Čto   Paris   posadili v   t'ur'mu]   nikogo ne udivilo.
          that   P.   put   in   jail   nobody not surprise
          'That Paris was put to jail didn't surprise anybody'
     (b) [To   čto Paris   posadili v   t'ur'mu]   nikogo ne udivilo
          that-pro that P.   put   to   jail   nobody not surprise
          'The fact that Paris was put to jail didn't surprise anybody'

As can be seen from example (37), preposed indicative clausal subjects are prohibited in Russian. The only way to convey a meaning similar to the meaning of English example (36a) is to use an overt pronominal element *to*, which selects a clausal complement. Applying the same line of reasoning as before, we can confirm that the indicative complementizer *čto* does not have properties similar to the English complementizer *that*, which allows English clauses to be subjects, and to check features of T. Russian clauses with the overt *čto* can not raise to the Spec,TP position and check features of T. That might serve as evidence that C in Russian lacks T-feature and the Russian indicative complementizer *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. Both of them strongly predict that the head position in the CP is empty in Russian indicative clauses.

Another piece of support for the specifier status of Russian indicative complementizer comes from the fact that Russian indicative clauses can not be topicalized, as shown by the ungrammaticality of example (38):

(38) *Čto   Maša   kupila Mercedes   ja   slyšal.
      that   M.   bought Mercedes   I   heard
     'That Masha bought Mercedes, I heard'

In similar fashion, under the Landau, 2007 approach, only phrases with overt heads are allowed to be topicalized. Since the topicalization of the clause with the overt complementizer is impossible, the head of CP position is empty.

Additional support for the absence of T-to-C movement in Russian comes from a pilot study undertaken by the author which looks at the acquisition of the array of facts related to the T-to-C parameter in English by Russian native speakers (Antonenko, 2006). Russian speakers tend to have difficulties acquiring *that*-trace and *for*-trace effects, *that*- and *for*-omission asymmetries. I also investigated the properties of the interlanguage grammar of the Russian learners of L2 English. The study showed that the English specific nature of *that* and *for* seems to be absent

from the interlanguage grammar on Russian learners of English. I also observed the clustering of properties related to *that*-effects: speakers who disallow complementizers in case of *wh*-extraction from the embedded clauses, also do not allow clausal subjects, even if *that* is present. If the Full Transfer/Full Access hypothesis (Schwartz and Sprouse, 1996) is correct, we can consider these findings as indirect evidence for the absence of T-to-C movement in Russian indicative clauses.

Now I will turn to the nature of a subjunctive complementizer *čtoby*. This element can be treated as morphologically complex, consisting of a complementizer *čto* and a particle *by*. The particle *by* in Russian can appear separately from the complementizer, as in the example (39):

(39) (a) Pošel   by   ty   v   kino!
         Go   PART   you to   cinema
         'Why don't you go to the movies?'
     (b) S   kem   by   vypit'   vodki?
         With   whom   PART   drink   vodka
         'With whom can I drink vodka?'
     (c) Esli by   u   menja   byli   den'gi, ja   by   uexal   v   Islandiju
         If PART   at   me   were   money   I   PART   go   to   Iceland
         'If I had money, I would go to Iceland'

These example show that *by* occurs mostly in the second position of the clause, and can follow a wide variety of elements, such as an imperative (39a), a *wh*-element (39b), or can be used in conditionals (39c). Assuming that *wh*-elements are located in Spec,CP, it seems plausible that *by* occupies the head position within the CP-domain. Further, clauses with *by* do not have a fixed tense interpretation, and are often *irrealis*. Thus it would be tenable to postulate the uninterpretable unvalued T-feature <*u*T –val> on the particle *by*. In the next section we will see how this assumption allows us to account for the facts about Russian subjunctives, while in the rest of this section I will provide the further evidence for postulating the unvalued T-feature on the particle *by* from Polish.
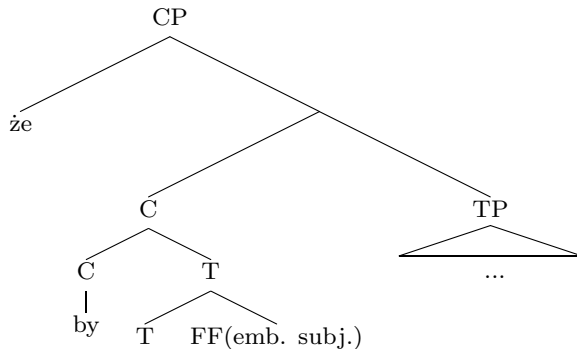
In Polish the subjunctive complementizer *żeby* is in fact an agreeing complementizer, as the examples in (40) (based on Tomaszewicz, 2007) demonstrate.

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

In these examples, the subjunctive complementizer *żeby* acquires overt agreement morphology by agreeing with the subject of the embedded clause. I propose here, that an analysis similar to Watanabe's analysis of Dutch allows us to account for the agreement patterns. Similarly to Dutch, I claim that in Polish the agreement on the complementizer in subjunctive clauses surfaces as an effect of the raising of subject formal features (including its φ-features) to C

(adjoining to *by*).   Therefore, the structure of the Polish subjunctive clause is as in (41) (assuming that Polish *że*, as Russian *čto*, is located in the Spec,CP position):

(41)

```
                    CP
              /            \
          że                 \
                      /              \
                    C                  TP
                  /    \              /    \
                C        T          ‾‾‾‾‾‾‾‾‾
                |       /   \           ...
               by     T    FF(emb. subj.)
```

Describing the process of T-raising to C is featural terms in a probe-goal framework, I claim that the particle *by* in C acts as a probe, seeking for a goal endowed with T-features, and the closest such goal is obviously T, along with the formal featural complex of the subject, adjoined to it. Formally, that means that *by* is endowed with a unvalued uninterpretable T feature.

Now notice that Polish exhibits properties similar to Russian with respect to obviation in Subjunctive clauses, as demonstrated in (42a)[3] as opposed to (42b) (examples are from Tomaszewicz, 2007):

(42) a. Jan$_i$ chce   żeby   pro$_{*i/j}$ przyjechał
         J.   wants   that-subj-3sg   arrive
         'Jan$_i$ wants him$_{*i/j}$ to arrive.'   [Subjunctive]
     b. Jan$_i$ mowi   że pro$_{i/j}$ przyjechał
         J.   say   that   arrive
         'Jan$_i$ said that he$_{i/j}$ arrived.'   [Indicative]

Based on the observation that properties of Polish and Russian subjunctive clauses are similar, I take Polish data to provide indirect support for hypothesis that *by* in Russian is also endowed with <uT -val> feature.

4 An Analysis of Indicative/Subjunctive Distinction

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, as demonstrated in example (43) for Spanish. 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.

_____

[3] Polish is a pro-drop language.

(43) *Spanish:* (adopted from Jakubowicz, 1984)
    (a) El   presidente   dijo [que   el   ministro invitará   a   todos]
        the president   said that   the minister invite-ind   everybody
        'The president said that the minister will invite everybody'   [Indicative]
    (b) El   presidente   desea   [que   el   ministro invite   a   todos]
        The president   desired that   the minister invite-subj   everybody
        'The presidenti desired for the minister to invite everybody'   [Subjunctive]

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).

(44) (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 (44) the verb *pročitala* 'read' comes from the lexicon embedded with different features (even though those two forms are morphologically indistinguishable): in sentence (44a) it bears a <*u*T -val> feature, whereas in the sentence (44b) it bears a valued instance of the T feature <*u*T +val>.

This proposal about the subjunctive vs. indicative clauses are summarized below in (45) in what I will call the Subjunctive parameter:

(45) The Subjunctive parameter
    (a) (In Russian,) the subjunctive form of the verb bears a <uT -val> feature;
    (b) (In Russian,) finite forms of the verb bear <uT +val> feature.

I claim that the adoption of the Subjunctive Parameter in (45), along with my proposal about the status of Russian complementizers and featural approach to binding (Watanabe 2000) within the Pesetsky and Torrego, 2001, 2004 framework allows us to account for the asymmetries between indicative and subjunctive clauses illustrated in section 2.
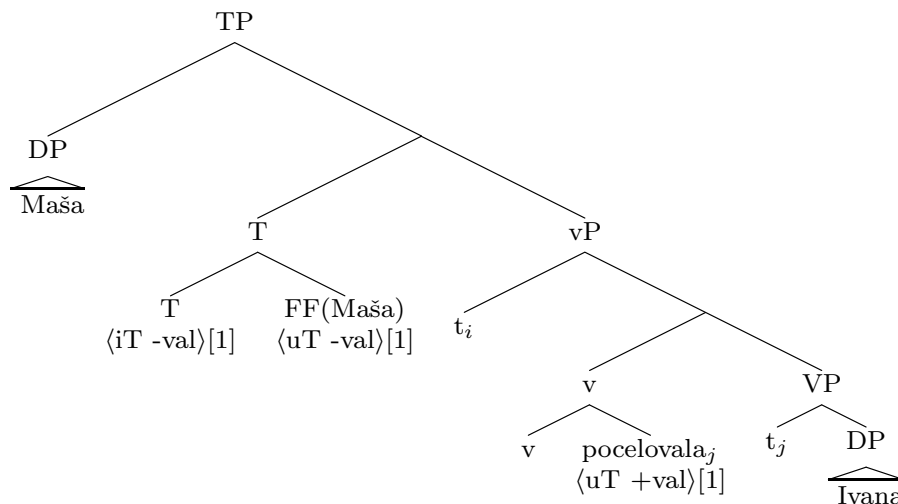
In what follows I will show how the derivation of indicative clauses works, and then proceed to the subjunctive.

4.1 Indicative clauses

Recall that by the Subjunctive parameter (45), indicative verbs have <*u*T +val> 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 (44b)), after T is merged into the tree structure, its interpretable but unvalued feature <*i*T -val> probes to find its goal, finding it in the <*u*T -val> 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 $<uT +val>$ 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 $<iT>$ on T takes place, resulting in the valuation of $<uT>$ 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 (46).

(46)

```
                              TP
                 ┌────────────┴────────────┐
               DP                          │
             ╱‾‾‾╲              ┌───────────┴───────────┐
             Maša              T                        vP
                          ┌────┴────┐              ╱────┴────┐
                          T      FF(Maša)        t_i         │
                    ⟨iT -val⟩[1] ⟨uT -val⟩[1]          ┌──────┴──────┐
                                                       v             VP
                                                  ┌────┴────┐     ┌───┴───┐
                                                  v  pocelovala_j t_j    DP
                                                     ⟨uT +val⟩[1]      ╱‾‾‾╲
                                                                       Ivana
```

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 merge of the complementizer *čto* into the Spec,CP position, the lower CP phase is completed with no elements but the complementizer on 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 (45), I claim that the subjunctive verb comes from the lexicon with the unvalued T feature $<uT -val>$. This contrasts with the verbs in indicative clauses, which enter the numeration with valued T features. Also, I would assume the presence of *by* in the numeration for selectional purposes (I would claim that volitional predicates, such as *xotet'* 'to want', select CPs headed by *by*. Therefore, if *by* is not present in the numeration, the derivation will crash.). As I assumed above, *by* also

comes from the lexicon endowed with uninterpretable unvalued <*u*T –val> feature. 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 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 merging of *by* in the C-head position. I would claim, following the lines of Rizzi and Shlonsky 2005, that this element can satisfy the subject EPP phonological requirements of the TP.

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 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*. After that the complementizer *čto* is merged into the Spec,CP position and the resulting configuration by the completion of the embedded CP-phase is given in (47), where the index [1] shows which T-features are instances of the same feature, and DP$_{low}$ is a the subject of the embedded clause.

(47) [$_{CP}$ čto **by$_{<uT\,-val>[1]}$+T$_{<iT\,-val>[1]}$+FF(emb. subj.)** [$_{TP}$ DP$_{emb}$ v+V$_{<uT\,-val>[1]}$ ...
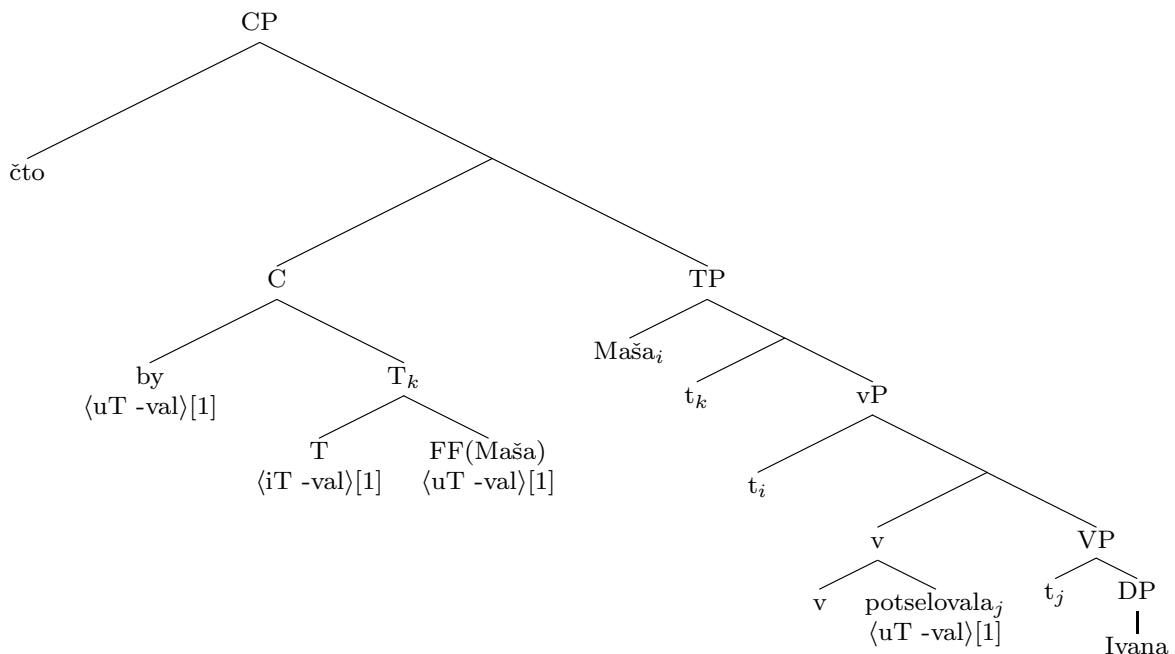
Crucially, even though there are unvalued features by the end of the derivation of this phase, the derivation does not crash, since the unvalued T-feature was able to move to the edge of CP-phase to the C-head position (bolded in (47)), and therefore will remain accessible for further Agree relations with the probe from the higher domain.

Next, the elements of the matrix clause are merged in the structure: V/v with the <*u*T +val> (since the matrix verb is finite), and matrix subject DP with the instance of <*u*T -val>. Recall that V in subjunctive constructions selects a CP headed by *by*. This selectional property would result in the featural complex, which by that moment 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 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 (48)[4]. 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.

(48) [$_{vP}$ DP$_{high<uT\ -val>}$ v+V$_{<uT\ +val>}$+**C$_{<uT\ -val>[1]}$+T$_{<iT\ -val>[1]}$+FF(emb. subj.)** ... [$_{CP}$ čto by...
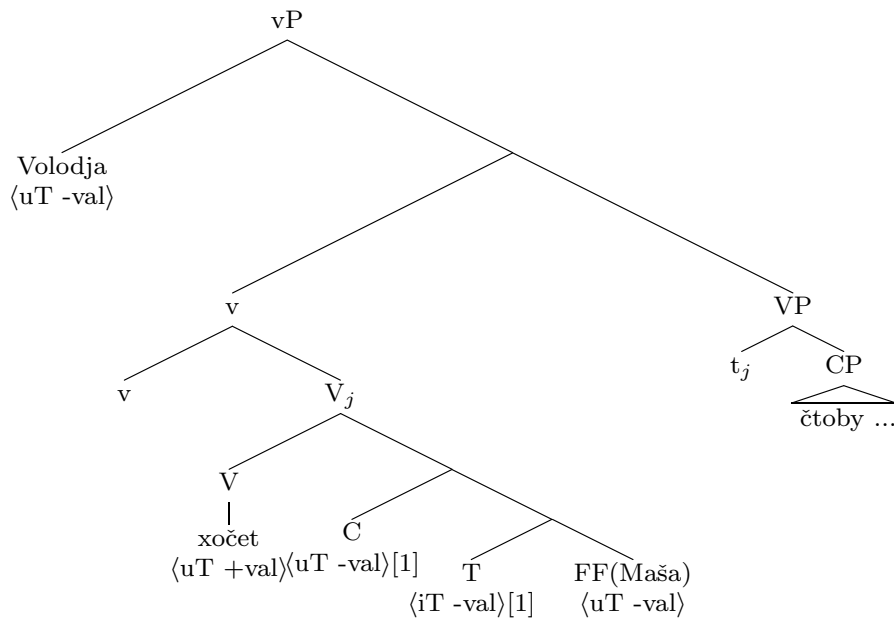
At the next stage, the matrix T, endowed with <*i*T -val> feature, is merged into the structure. Since it is an interpretable feature, it probes down, finding the T-feature of the matrix subject and Agrees with it, resulting in a shared feature between it and the matrix subject DP. As before, the

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[4] I will not go into details of how and why by 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. I will stipulate that there is a morphological process which results in fusion of čto and by under adjacency, and therefore they form a phonological complex čtoby.
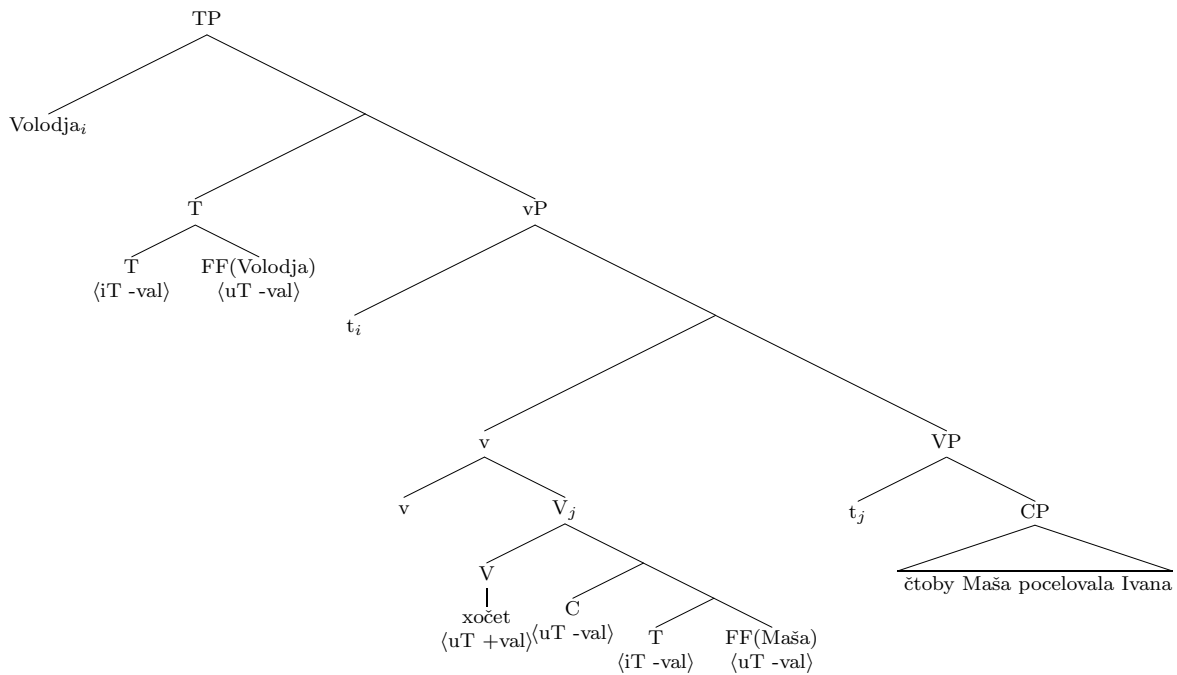
formal feature bundle of the matrix subject adjoins to T. Further, since the T-feature of the matrix T is still unvalued (as none of the elements with which it has agreed have provided it with a value), it probes down one more time and finds the matrix v+V+C+T+FF(emb. subj.) complex as a goal. The Agree 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 <uT +val> matrix verb.

After this crucial step, all T-features introduced so far in both matrix and embedded clause are instances of the same T-feature, and all of them become valued. The resulting structure is shown in (49). As before, the bolded features are the features which raised from the embedded clause:

(49) [$_{TP}$ T$_{<iT +val>[1]}$+FF(matr. subj.) [$_{vP}$ DP$_{matr<uT +val>[1]}$ v+V$_{<uT +val>[1]}$+**C$_{<uT +val>[1]}$+**
    T$_{<iT +val>[1]}$+FF(emb. subj.) ... [$_{CP}$ čto by...

(50) 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:

(50) Volodja xočet   čtoby   Maša   potselovala Ivana
     V.   wants   that-subj M.   kiss   I.
     'Volodja wants Mary to kiss Ivan'

TP
- Volodja$_i$
- T
  - T ⟨iT -val⟩
  - FF(Volodja) ⟨uT -val⟩
- vP
  - t$_i$
  - v
    - v
    - $\bar{V}_j$
      - V | xočet ⟨uT +val⟩
      - C ⟨uT -val⟩
      - T ⟨iT -val⟩
      - FF(Maša) ⟨uT -val⟩
  - VP
    - t$_j$
    - CP
      - čtoby Maša pocelovala Ivana

5 Explaining the Asymmetries

In this section I turn to examine the consequences of the proposed analysis for the obviation phenomenon, and show how it can explain some of the subjunctive/indicative asymmetries introduced in section 2.

5.1 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 the its antecedent or the set of formal features of its antecedent.

This analysis of the indicative embedded clauses allows an account of lack of obviation facts in indicative sentences from examples (3b) and (4b) in section 2, repeated here in (51):

(51) (a) Volodja$_i$ skazal   čto on$_{i/j}$ potseloval   Nadju
          V.   said   that he   kissed   N.
          'Volodja$_i$ said that he$_{i/j}$ kissed Nadja.'
      (b) Volodja$_i$ skazal   čto Nadja   potselovala ego$_{i/j}$
          V.   said   that N.   kissed   him
          'Volodja$_i$ said that Nadja kissed him$_{i/j}$.'

In (51a) 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 (51b): 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.

The examples with possessive pronouns and anaphoric possessors are similar to those in (6), but when the embedded clause is indicative, these can be analyzed in the same manner:

(52) (a) Volodja$_i$ skazal   čto [ego$_i$ žena]   poexala v Evropu.
          V.   said   that his   wife   go   to Europe
          'Volodja$_i$ said that his$_i$ wife went to Europe'
      (b) *Volodja$_i$ skazal čto [svoja$_i$ žena]   poexala v Evropu
          V.   said   that self's   wife   go   to Europe
          'Volodja$_i$ said that self$_i$'s wife went to Europe'

In example (52a) the possessive pronoun within the embedded subject is not locally bound by the matrix subject, since it is in the embedded T-domain and thus is not visible for the computational system from the outside of the lower CP-phase. Therefore, no violation of Principle B is incurred. In (52b), the matrix subject cannot bind within the lower CP-phase for the same reasons, and thus the anaphoric element *svoja* 'self's' is not bound, resulting in a Condition A violation.

Now I will consider the obviation phenomenon in the case of subjunctive embedded clauses. The relevant examples are repeated in (53):

(53) (a) *Volodja$_i$ xočet   čtoby   on$_i$ potseloval   Nadju
         V.   wants   that-subj   he   kissed   N.
         'Volodja wants to kiss Nadja'
     (b) Volodja ugovoril   Nadju$_i$ čtoby   ona$_i$ poexala v   Evropu
         V.   convinced   N.   that-subj she   go   to Europe
         'Volodja convinced Nadja to go to Europe'
     (c) Volodja$_i$ xočet   čtoby   ego$_i$ žena   poexala v   Evropu
         V.   wants   that-subj his   wife   go   to Europe
         'Volodja$_i$ wants his$_i$ wife to go to Europe'
     (d) *Volodja$_i$ xočet   čtoby   svoja$_i$ žena   poexala v   Evropu
         V.   wants   that-subj   self's   wife   go   to Europe
         'Volodja$_i$ wants self$_i$'s wife to go to Europe'

In example (53a), by the time the matrix vP phase is completed the configuration is the following (following the analysis proposed in the previous section):

(54) [$_{vP}$ 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 as soon as *Volodja* moves to the Spec,TP, rendering the sentence ungrammatical:

(55) [$_{TP}$ Volodja$_i$ [$_{vP}$ t v+V+...+FF(he$_i$) [$_{CP ...}$ [$_{TP}$ he ...

Notice, that my analysis of subjunctive clauses can provide an independent explanation of grammaticality of example (53b) (without referring to the subject orientation of the Principle B). In this example the FF bundle of the embedded subject ends up adjoined to the matrix v+V complex, which is higher in the structure, and therefore not in a c-command relationship with the matrix object *Nadju,* and thus no violation of Principle B occurs. Now, the question of why the Strong Crossover effects in example like (53b) don't arise in this case have to be answered. Notice, that in the presented analysis the formal features of the embedded subject are raised above the coreferential pronoun, and may involve a Principle B violation, similar to the English example in (56). In this example, the wh-element *who* is A'-raised across the coreferential pronoun. Since the wh-trace, being a variable must be A-free, binding by *he* would constitute a violation of Condition C.
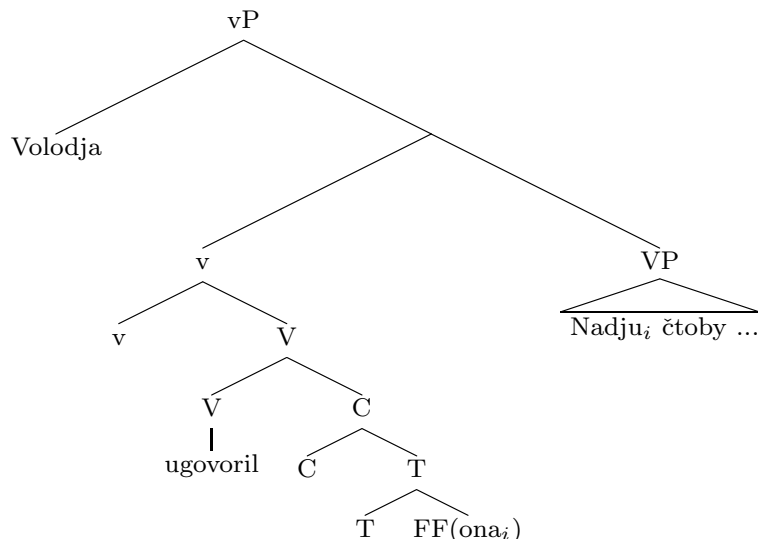
(56) Who$_i$ did he$_i$ see t$_i$?

There are two possible solutions to this problem.

First, the formal feature bundle of the embedded subject is deeply embedded within the complex in the v-head of the matrix clause above the matrix object *Nadju*'s formal features. Therefore, a

violation of Principle C does not occur, assuming the feature bundle of the matrix subject will not be able to bind outside of its featural complex. The configuration demonstrating this is demonstrated in (57).

(57)

```
                          vP
                ┌─────────┴──────────┐
           Volodja                    │
                        ┌─────────────┴───────┐
                        v                      VP
                   ┌────┴────┐           ┌──────┴──────┐
                   v         V          Nadju_i čtoby ...
                        ┌────┴────┐
                        V         C
                        │     ┌───┴───┐
                    ugovoril   C       T
                               │   ┌───┴────┐
                               T   FF(ona_i)
```

Here we can see that since the raising of the formal features of the embedded subject occurs through the head raising to embedded T, embedded C, and then to the matrix V and matrix v, the formal features of the pronoun *ona* 'she' end up being embedded within the head complex, and therefore are unable to c-command the matrix object *Nadju*. Therefore, no violation of principle C occurs in this example. Note, however, that this analysis requires the assumption that features which are located within the head complex cannot c-command outside of the head complex. This is not an uncontroversial assumption, and it would be desirable if an explanation for absence of Principle C violation could be provided without resorting to such an assumption.

Such an explanation becomes possible if we are to follow suggestion made by Watanabe (2001). In order to explain the similar facts involving switch-reference, he proposes the following condition (58), which he considers as a part of the definition of binding.

(58) ϕ-features not accompanied by semantic features cannot serve as the binder of ϕ-features accompanied by semantic features.

What this condition states, is that the phrase cannot take a set of formal features as its antecedent, while the set of formal features can take either a phrase or another set of formal features as its binder. Justification for this condition comes from the assumption that the antecedent should be able to provide not less semantic information than the bindee. Phrases, for instance, possess not just formal features, but also semantic features, and therefore more content than just sets of formal features.

The application of this condition to Russian situation discussed above is straightforward. Even if c-commanding from inside of the head-complex is possible in general, in our case, the potential binder would be just a bundle of formal features, which would have to bind the object DP *Nadju*. By the condition in (58) such relation is impossible, and therefore no violation of Condition C will occur.

One more problem however arises with this approach. Recall that in the approach to the ECM constructions by Branigan (2000), the movement of the formal features of the embedded subject to the matrix clause is essential to account for the possibility of the sentences like in (59), repeated from (33a):

(59) Perry proved [[Jill and Tony]$_i$ to have lied] during each other$_i$'s trials.

The independent reasoning for this movement comes from the fact that in the ECM constructions the embedded subjects needs to be assigned accusative case by the matrix verb, since case of the element in the embedded clause cannot be assigned by the verb which is located in the matrix clause. That might lead one to assume that the formal features of the matrix object *Nadju* in (53b) must also raise to attach to the v-head, giving rise to a potential problem with the binding (Principle C violation when the formal features of the pronoun *ona* potentially binding formal features of R-expression *Nadju*). I will however argue that that raising of the formal features of the object is not necessary in this situations (as opposed to the ECM cases in Branigan (2000)). I assume that the raising of formal features of the object is not necessary in example (53b), since it it located within the same clause as the v, and therefore the accusative case can be assigned without object feature movement. This stands in the contrast to the ECM examples in Branigan (2000), where the subject of the ECM clause, which must be marked with the accusative case, is located in the different clause than the verb. Further investigations into the nature of the feature movement in ECM clauses and accusative case assignment to the subjects of ECM clauses and

objects of the matrix clauses are needed, however if I am on the right track, this potential problem is resolved.[5]

An account for the previously problematic example with the possessive pronoun, (53c), is possible in terms of the proposed analysis by adding one more assumption, which I refer to below as feature splitting:

(60) *Feature splitting:* formal features of the DP may move separately from the formal features of the possessor.

_____

[5] Another question which arises with respect to the proposed analysis is the question of why the nominative anaphors are non-existent in Russian. It would seem feasible that in subjunctive clauses where the formal features of the subject raise to the matrix clause we might expect to find an element which must obey Principle A of binding theory, and no violations with such elements would occur. The question of why nominative anaphors are disallowed in some languages (such as Russian, English, Icelandic, Italian) and allowed in others (Korean, Japanese, Chinese, Khmer Vietnamese and Thai) was studied in the articles by Rizzi (1990) and Woolford (1999) among others. Rizzi (1990) proposes the anaphor agreement effect, which is stated as in (i)

(i) Anaphor Agreement Effect
    Anaphors do not occur in syntactic positions construed with agreement.

This statement captures the correlation between the possibility of anaphors in languages without subject agreement (such as Korean (ii) and Japanese, and others, mentioned above), as well as also predicts the impossibility of the nominative anaphors in languages like English (iii) and Russian among others.

(ii) Kɨtɨl-in$_i$ səlo-ka$_i$ kyəngcængha-nɨn-kəs-ɨl   calangha-n-ta.
     they-TOPIC   each-other-NOM   compete-ASP-COMP-ACC   boast-ASP-DEC
     'They$_i$ boast that each other$_i$ are competing.'   (Yang 1983:4, from Woolford 1999)

(iii) *They$_i$ think that each$_i$ other are nice.   (Woolford 1999)

Woolford (1999) is successful in disposing some apparent counterexamples to this statement, and examining its validity for languages with object agreement, such as Swahili and Inuit.

I would claim that this effect stated in (i) accounts for impossibility of nominative anaphors in Russian, and if such anaphors were in fact available in Russian, they would be able to surface in the positions where we observe obviation effects. In fact, one can consider the following example (iv) from Russian:

(iv) ?Volodja$_i$ xočet čtoby   on sam$_i$ poceloval Nadju
      V.   wants that-subj he himself kiss   N.
      'Volodja wants to kiss Nadja himself'

Notice that even though not fully grammatical, this example exhibits only mild deviance, in comparison to the example (53a) which is strongly ungrammatical. The only difference between this example and the example in (53a) is the presence of anaphoric element *sam*, which even though cannot be used by itself, reduces the level of ungrammaticality of the example. More research on what allows this example and the nature of the phrase *on sam* is necessary. In particular, it is important to understand the conditions governing the distribution of *on sam*.

By the time the lower CP is completed, the embedded subject *ego žena* 'his wife' is inside the TP, and the formal features of *žena* 'wife' are attached to *by* of the embedded clause (feature splitting has resulted in independent movement of the formal features of *žena* 'wife' from within the subject DP). After the movement and adjunction of the formal features of *žena* into embedded C the matrix vP is completed, the formal features of the embedded subject are adjoined to v+V complex, and the matrix subject *Volodja* is merged into the Spec,vP. Schematically, this moment is represented in (61):

(61) [$_{vP}$ Volodja$_i$ v+V+...+FF(žena$_j$) [$_{CP}$ ... [$_{TP}$ [ego$_i$ žena] ...

Notice, that the index *j* is no longer on the embedded subject, since this coindex remains associated with the formal featural complex of *žena*, which has moved to the matrix v. The next step of the derivation is shown below in (62).

(62) [$_{TP}$ Volodja$_i$ [$_{vP}$ t v+V+...+FF(žena$_j$) [$_{CP}$ ... [$_{TP}$ [ego$_i$ žena] ...

At the point at which *Volodja* moves to Spec,TP, the material buried inside the lower CP-phase is inaccessible for evaluation of binding principles. Therefore, Principle B is not violated.

The explanation of the ungrammaticality of the example in (53d) follows along in the same fashion. The relevant structures at the point at which construction of matrix vP and TP respectively has been completed are given in (63):

(63) (a)   [$_{vP}$ Volodja$_i$ v+V+...+FF(žena $_j$) [$_{CP}$ ... [$_{TP}$ [svoja$_i$ žena] ...
     (b)   [$_{TP}$ Volodja$_i$ [$_{vP}$ v+V+...+FF(žena $_j$) [$_{CP}$ ... [$_{TP}$ [svoja$_i$ žena] ...

As we can see in (63b), the anaphor is not locally c-commanded by its antecedent, and therefore Principle A violation triggers the ungrammaticality of this sentence. Again, in this analysis we make use of the proposed Feature splitting principle, leaving the FF bundle of the reflexive *svoja* 'self's' inside the TP of the embedded clause.

Now consider a situation in which the embedded clause has a dative subject (Bailyn, 2004). The relevant example is given in (64). Observe, that in this case there are no obviation effects:

(64) 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 adjunction 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 adjunction 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 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 (64), and thus the observed absence of obviation effects is accounted for.

5.2 Scrambling and *Wh*-movement

Now, as we have explained the difference between the subjunctive and indicative clauses with respect to the phenomenon of obviation, I will go back to the issues of scrambling, and *wh*-movement and show how the analysis of the subjunctive/indicative distinction allows us to account for the asymmetries with respect to these two constructions. Recall that only object scrambling is allowed in declarative sentences when the embedded clause is indicative, and both subject and object scrambling are allowed when the embedded clause in subjunctive. The similar asymmetries are observed in case of *wh*-movement, when both subject and object long-distance *wh*-questions are grammatical when the embedded clause is subjunctive, and only object *wh*-questions are grammatical when the embedded clause is indicative.

The relevant examples demonstrating subject scrambling from section 2 are repeated in (65).

(65) (a) ?Ty   doktor$_i$ xočeš   ctoby   t$_i$ cašce   priezzal.
          you   doctor   want   that-subj   more often   arrive
          'You want doctor to arrive more often.'   [Subjunctive]
     (b) *Ty   doktor$_i$ videl   čto t$_i$ pod'ezzal.
          you   doctor   saw   that   arrive
          'You saw when doctor arrived.'   [Indicative]
     (c) ?Ja soseda$_i$ xoču   čtoby   Petr   pobil   t$_i$.
          I   neighbor   want   that-subj P.   beat
          'I want Peter to beat the neighbor.'   [Subjunctive]
     (d) ?Ja soseda$_i$ videl   čto Petr   pobil   t$_i$.
          I   neighbor   saw   that P.   beat
          'I saw that Peter beat the neighbor.'   [Indicative]

These examples show that long-distance subject scrambling is possible when the embedded clause is subjunctive (even though the corresponding sentences are degraded, (64a)), and banned if the embedded clause is indicative (65b); however object scrambling is allowed out of both indicatives and subjunctives, as shown in (65c,d):

First, I will show how the ECP (Rizzi 1990, 2004, Rizzi and Shlonsky 2005) 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 (64a,c,d) is reminiscent in nature of the English subjacency violations, discussed in Rizzi 1990 based on examples cited in (66).

(66) 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 (66a) and (66b) on the one hand and (66c) on the other can be explained by the nature of violations involved. Example (66a) violates the ECP, since the subject trace is not properly governed; in (66b) the adjunct trace is not connected to the operator. Both of these violations are crucial, and render the sentences ungrammatical. However in example (66c) 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 (64a,c,d) and the ungrammaticality of (64b). 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 occupied Spec,CP would necessarily generate subjacency violations, which trigger the corresponding sentences as mildly deviant, as opposed to the example (64b) where ungrammaticality stems from ECP violation.

As for the movement and scrambling of subjects, I will resort to the notion of Criterial Freezing, introduced in Rizzi 2004, and Rizzi and Shlonsky 2005. In the first part of the Criterial freezing condition, 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. This condition successfully accounts for impossibility of elements which have already undergone topicalization, focalization, *wh*-movement to the scope position, etc. to move further. The second part of the Criterial freezing deals with subjects. They 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. In this case, the thematic subject does not move through a criterial position, and therefore is not frozen.

Adopting the Criterial Freezing condition from Rizzi and Shlonsky 2005, objects are free to move, as they do not end up in a criterial positions. There is no need for the objects to satisfy any criteria, and they are free to move out of their base-generated position to a position in the higher clause. 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 (the complementizer *čto*, as argued above, is located in the Spec,CP position). Further, as I discussed above, the embedded subject ends up in the Spec,TP position. Such a subject position is criterial (following Rizzi and Shlonsky 2005), and therefore the constituent which ends up in such a position remains frozen for future movement. This explains the unavailability of subject scrambling in the case of indicative embedded clauses. Notice, that a violation of Criterial freezing is much more severe than a violation of subjacency, and therefore the sentence is ungrammatical, and not just mildly deviant.

What remains to be answered now is why subject scrambling is possible out of subjunctive embedded clauses. As I mentioned before, the complementizer *čtoby* in subjunctives in Russian exhibit different properties from the indicative complementizer *čto*. I analyzed *čtoby* as a

complex consisting of *čto*, located in Spec,CP, and the actual complementizer *by*, which occupies the C position. Based on this analysis, it is possible to find an alternative strategy for the subject to move out of subjunctive clause. 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 2005 for the difference between French complementizers *que/qui* I will argue that the same 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 98). They propose a mechanism for how Subject EPP can be satisfied by not only merge into the specifier position, but also in a head-head configuration.[6]

The same mechanism applied to Russian would allow satisfaction of the subject EPP by the *by* element, thus not requiring for subject to move to the criterial position (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, exactly as with the object scrambling.

Now I will turn to the asymmetries with long wh-extraction in Russian. As I showed previously in section 2.5, 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 effects with *wh*-extraction of subjects out of subjunctive clauses and objects of both indicative and subjunctive clauses. Given the same nature of violations and same restrictions on both wh-extraction and long-distance scrambling, I argue that my analysis of scrambling can be extended in a straightforward way to the case of wh-extraction, explaining the parallelism between two processes.

As I showed in this section, the distinction between the complementizers for the subjunctive and indicative clauses, and adoption of some version of ECP would predict the impossibility of subject extraction out of indicative clauses, while allowing subject extraction from subjunctive clauses, and object extraction from both types of clauses.

5.3 Binding asymmetries

The remaining puzzle of Russian subjunctives is related to interaction of binding possibilities and scrambling. As I showed previously in section 2.4 in examples (18) and (19), object scrambling out of indicative clauses does not give a rise to new binding possibilities, and in case of anaphor scrambling, the only possible antecedent is the embedded subject. However, scrambling of an anaphor out of subjunctive clause allows it to be bound by the matrix subject in addition to the embedded subject, thus triggering the resulting sentence ambiguous. The relevant examples from (18) are repeated below in (67):

(67) (a) ?Ty$_i$ [svoego$_{*i/j}$ soseda]   slyšala čto Petr$_j$ ubil   t?
          you self's   neighbor   heard   that P.   killed

_____

[6] For the purposes of the current paper, I will skip the precise description of the mechanism proposed in Rizzi and Shlonsky 2005.

'Have you$_i$ heard that Peter$_j$ killed self$_{*i/j}$'s neighbor?' [Indicative]

(b) ?Ty$_i$ [svoego$_{i/j}$ soseda] xoceš čtoby Petr$_j$ ubil t?
you self's neighbor want that-subj P. killed
'Do you$_i$ want Peter$_j$ to kill self$_{i/j}$'s neighbor?' [Subjunctive]

In order to account for the observed asymmetries, I will go back to my analysis of indicative vs. subjunctive clauses in Russian. As I showed, the indicative embedded clause is completed after *čto* is merged into its Spec,CP position. All the features within the embedded indicative clause are valued, and the phase is sent off to the interpretation. Therefore, the object scrambling, even though possible, cannot introduce any new binding relations, since all of them are already evaluated by the time the embedded indicative phase is completed. Thus, object scrambling in this case is a pure phonological displacement, similar in a sense to stylistic inversion.

On the contrary, in subjunctives, as I previously showed, the movement of features targets the clause-external positions. Active C (particle *by*) allows for a possibility of featural raising outside of the embedded clause. I claim that this is exactly what happens in subjunctive object scrambling. It is allowed to proceed through the CP-edge, and the features, participating in binding relations are dislocated along with the phonological material. Therefore, the new binding possibility will arise in case the features participating in binding relations are moved to the matrix clause.

Similarly, the facts can be captured under assumptions from Hestvik (1992) that anaphors must head-adjoin to T. As I demonstrated above, raising of the indicative T to the matrix clause does not take place in Russian, and therefore, the formal features of the object anaphor in the indicative embedded clause do not raise to the matrix clause, even in the case of object scrambling. Therefore, the only possible binder for the embedded object anaphor in the indicative clauses is the subject of the embedded clause, and binding by the matrix subject is not allowed. Therefore, sentence (67a) allows for only one interpretation.

The situation is however different in subjunctive clauses. According to my analysis, T of the embedded subjunctive clause ends up adjoined to the matrix v. Along with T, the formal features of the anaphoric element are raised to the matrix clause, and therefore they can enter in a binding relation with the matrix subject, therefore allowing for the possibility of the anaphor which originated in the object position of the embedded subjunctive clause to be bound by the matrix subject as in (67b).

6 Cross-linguistic Facts

The phenomenon of obviation is not specific to the Russian language. In fact, most of the languages that exhibit a subjunctive/indicative distinction display similar effects in subjunctive clauses. The examples from (68) to (71) illustrate this point.

(68) *Spanish:* (from Jakubowicz, 1984)
(a) El presidente$_i$ dijo [que él$_i$/pro$_i$ invitará a todos]
the president said that he/pro invite-ind everybody
'The president$_i$ said that he$_i$ will invite everybody' [Indicative]
(b) *El presidente$_i$ desea [que él$_i$/pro$_i$ invite a todos]

The   president   desired   that   he/pro invite-subj   everybody
'The president$_i$ desired that he$_i$ invites everybody'   [Subjunctive]

(69) French:
    (a) Jean$_i$ a   dit [qu'il$_i$ va au cinéma]
         J.   aux said that he go   to   movies
         'Jean$_i$ said that he$_i$ will go to the movies'   [Indicative]
    (b) *Jean$_i$ veut   [qu'il$_i$ aille   au cinéma]
         J.   want   that he go-subj to   movies
         'Jean$_i$ wants that he$_i$ go to the movies'   [Subjunctive]

(70) *Basque:* (from San Martin, 2000)
    Nik$_i$ [pro$_{*i}$/John joatea]   nahi   dut
    I-erg   pro/John   go-nom-det-abs want   3abs-1erg
    'I want him/her/you/they/John to go'

(71) *English:*
    (a) John$_i$ said that he$_i$ is going to the bar.
    (b) *John$_i$ required that he$_i$ go to the bar.   [Subjunctive?]

I claim that an analysis similar to what I have proposed for Russian can be applied to these languages as well. The details of this analysis require further research, and the scrambling/ extraction properties in these languages need to be explored further.

However, not all languages show effects similar to Russian. As is well known, some Balkan languages such as Romanian, Bulgarian, and Greek, do not display obviation effects in subjunctive clauses, as shown in the example (72) for Romanian.

(72) *Romanian:* (from Dobrovie-Sorin, 2001)
    Ion$_i$ vrea   sa plece   pro$_{i/j}$ devreme mâine.
    John   wants   sa leave-3sg.subj   early   tomorrow
    'John wants to leave early tomorrow'

In order to propose an explanation for Romanian facts, one needs to look at the structure of the complementizer, and explain why the formal features of Romanian embedded subjects do not end up in the position within the matrix clause. One possible approach to the analysis is the following. The phonologically empty subject of the embedded clause can be argued to be PRO, instead of *pro* (cf. Dobrovie-Sorin 1987, Terzi 1991, Krapova 2001, Roussou 2001). As I argued before in my analysis of indicatives vs. subjunctives, the obviation arises only in case of nominative marked subject (cf. lack of obviation in Russian embedded subjunctive clauses with dative subjects). Crucially, unlike *pro*, PRO is not marked with a nominative case. Therefore, the lack of obviation effects is predicted. Clearly, this is far from a fully fledged analysis as of yet, but further investigations of the issue along with exploration of extraction facts is a subject for a future research.

7 Conclusion

In this paper I have proposed an analysis of the differences observed between subjunctive and indicative clauses in Russian following mainly the framework proposed by Pesetsky and Torrego, 2004, and the featural approach to binding, as advocated for in Watanabe 2000. I claimed that in subjunctive clauses, Tense-transfer from the main clause T is necessary for the T-feature on the subjunctive T to get valued. I also argued that the formal features of the subject of the subjunctive clause participates in "transmitting" the tense, being adjoined to the matrix v+V complex. This analysis allowed for an explanation the obviation phenomenon.

Further, I proposed the ECP based analysis of long-distance scrambling and *wh*-extraction asymmetries in Russian, and showed how its properties and the conditions on its availability follow from the analysis of the subjunctive/indicative distinction and the properties of indicative/subjunctive complementizers.

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