

# STRUCTURAL LICENSING OF SENTENTIAL COMPLEMENTS: EVIDENCE FROM RUSSIAN NOUN-COMPLEMENT CONSTRUCTIONS

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**Abstract:** In this paper I discuss restrictions on the realization of sentential complements of nouns on the basis of the distribution of *čto*-clauses in Russian. I propose an account for these restrictions in which sentential complements of nouns are introduced by a silent preposition necessitated by the structural Case requirement of sentential complements. The observed restrictions follow from the licensing conditions on predication imposed by the silent preposition, which, as I argue, is interpreted as a relation of possession (of propositional content). These licensing conditions are satisfied only in those environments where the complement-taking noun projects a (logophorically controlled) implicit argument, which can serve as the subject for predication. If the proposed account is correct, it provides evidence for the  $\theta$ -theoretic (Visibility) approach to the Case Filter, which entails that sentential arguments require structural Case licensing.

**Keywords:** sentential complements, nominalization, silent prepositions, predication, implicit arguments

## 1. Introduction

Stowell (1981) famously argued that sentential complements of nouns are appositives rather than arguments pointing out to the fact that these complements can be predicated of the relevant nouns, as in (1a-b), which is unavailable for true arguments. However, subsequent research identified a number of cases where nouns take true sentential arguments, which cannot be analyzed as appositives. First of all, these are nouns like *proof* (and also *sign*, *evidence*, *confirmation*, *indication*), first noticed by Safir (1985) and later to become a paradigmatic example of argument-taking nouns (see Bošković 1995, Pesetsky and Torrego 2004, Moulton 2009). As shown in (2b), a *that*-clause cannot be predicated of *proof* to have the argumental reading that is present in (2a), i.e. ‘what was proved’.<sup>1</sup>

- (1) a. John’s claim that he would win
- b. John’s claim was that he would win.
- (2) a. John’s proof that the fly is a mammal amused the experts.
- b. \*The proof was that the fly is a mammal.

Another example of an argument-taking noun with a sentential complement is the (state) nominalization *knowledge*, identified by Grimshaw (1990), illustrated in (3a); cf. (3b).<sup>2</sup> In fact, Stowell (1981) himself treated state nominalizations of subject-experiencer adjectives such as *certainty* (also *fear*, *happiness* and *awareness*), illustrated in (4a), as

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<sup>1</sup> Note that this is possible with a different reading, where the clause specifies the content of the proof rather than what was proved; see Safir (1985).

<sup>2</sup> Moulton (2014) notes that there are some naturally occurring examples like (3b) so that knowledge might also be amenable to the appositive analysis.

taking true arguments, on a par with examples that involve the respective source adjectives; cf. (4b).

- (3) a. the knowledge that Dukakis was ahead  
b. \*The knowledge was the Dukakis was ahead.
- (4) a. Kevin's certainty that the tent is in the car is not reassuring.  
b. Kevin is certain that the tent is in the car.

Given the commonly held view that nouns are not Case-assigners, the fact that nouns like *proof* and *certainty/knowledge* take sentential arguments constitutes primary evidence against the claim that sentential argument require structural Case licensing. It is this claim that Stowell (1981) was advancing, drawing it from the so-called  $\theta$ -theoretic (Visibility) approach to the Case Filter. Indeed the Visibility approach in general and Stowell's (1981) theory in particular has been criticized largely based on the existence of true sentential complements of nouns (see Safir 1985, Bošković 1995, Lasnik 2008, Pesetsky and Torrego 2011). All of these authors argue that sentential arguments are generally free from the Case requirement.

In this paper I am going to reexamine the standard view by looking at the distribution of complement-taking nouns in Russian. I will argue that the distributional restrictions displayed by these nouns in construction with sentential complements (*čto*-clauses) leads to conclude that sentential arguments do need Case. In particular I will propose that sentential arguments of nouns are assigned Case by a silent preposition P, which is interpreted as the HOLD relation and which is syntactically licensed, specifically by the mechanism of Predication. It is those licensing condition that accounts for the observed distributional restrictions on sentential arguments of nouns.

The structure of the paper is as follows. Section 2 I introduce the three classes of complement-taking nouns and discuss distributional restrictions on the realization of sentential complements with them – the CERTAINTY/KNOWLEDGE class (2.1), the PROOF class (2.2) and the SIGN class (2.3). Section 3 contains the account of the data. In section 3.1 I introduce the proposal and in section 3.2. present my analysis of the distributional restrictions for the three respective classes of nouns. Section 4 concludes.

## 2. The data: Distributional restrictions on *čto*-clauses

In this section I will present three classes of Russian ('true') complement-taking nouns that display distributional restrictions in construction with a *čto*-clause.

### 2.1 The CERTAINTY/KNOWLEDGE class

The first class consists of nouns that are associated with experiencer arguments. This class can be further divided into two subclasses. Nouns of the first subclass, listed in (5), are nominalizations of subject experiencer adjectives/adjectival participles and verbs that take PP complements; cf. (6a) with a *čto*-clause and (6b)-(6b) with PP complements. I also provide the information about the preposition and case selected on their nominal

complement (examples illustrating this are discussed in section 3.2.1 below). I will refer to these nouns as the CERTAINTY class, alluding to Stowell's (1981) examples like (4a).

- (5) CERTAINTY class
- |  |   |
|--|---|
| <i>uverennost'</i> (v + LOC) 'certainty'   | < <i>uveren</i> (v + LOC) 'certain'     |
| <i>nadežda</i> (na + ACC) 'hope'           | < <i>nadejat'sja</i> (na + ACC) 'hope'  |
| <i>ubeždennost'</i> (v + LOC) 'conviction' | < <i>ubežden</i> (v + LOC) 'convinced'  |
| <i>vera</i> (v + ACC) 'faith'              | < <i>verit'</i> (v + ACC) 'believe'     |
| <i>somnenie</i> (v + LOC) 'doubt'          | < <i>somnevat'sja</i> (v + LOC) 'doubt' |
- (6) a. Vanya byl uveren/nadejalsja, čto èto proizojdet.  
 Vanya.NOM was certain/hoped that this.NOM will happen  
 'Vanya was certain/hoped that this would happen.'
- b. Vanya byl uveren v ètom.  
 Vanya.NOM was certain in it.LOC  
 'Vanya was certain about it.'
- c. Vanya nadejalsja na èto.  
 Vanya.NOM hoped on it.ACC  
 'Vanya hoped for it.'

Nouns of the second subclass, listed in (7), are nominalizations of transitive subject experiencer verbs; cf. (8a) with a *čto*-clause and (8b) with a DP complement. All of these nominalizations realize their nominal complement in the genitive (see section 3.2.1 below for some examples). I will refer to this class as the KNOWLEDGE class, alluding to Grimshaw's (1990) examples like (3a).

- (7) KNOWLEDGE class
- |                                    |  |
|------------------------------------|--|
| <i>ponimanie</i> 'understanding'   | < <i>ponimat'</i> 'understand'         |
| <i>znanie</i> 'knowledge'          | < <i>znat'</i> 'know' <sup>3</sup>     |
| <i>soznanie</i> 'awareness'        | < <i>soznavat'</i> 'be aware'          |
| <i>osožnanie</i> 'realization'     | < <i>osožnavat'</i> 'realize'          |
| <i>čuvstvo</i> 'feeling'           | < <i>čuvstvovat'</i> 'feel'            |
| <i>predčuvstvie</i> 'anticipation' | < <i>predčuvstvovat'</i> 'anticipate'  |
| <i>oščuščenie</i> 'sensation'      | < <i>oščuščat'</i> 'sense'             |
| <i>strax</i> 'fear'                | < <i>bojat'sja</i> 'fear' <sup>4</sup> |
- (8) a. Vanja ponimal /znal, čto nado čto-to  
 Vanja.NOM understood/knew that necessary something.ACC  
 menjat'.  
 change.  
 'Vanya understood/knew that it was necessary to change something.'

<sup>3</sup> *Znat'* 'know' and *znanie* 'knowledge' can also take PP complements headed by *o* 'about'.

<sup>4</sup> Apart from having a root different from the source verb, *strax* 'fear' is also special in that its source verb *bojat'sja* assigns accusative only to animate objects while assigning genitive to inanimate objects, including propositional ones, as in (i). Yet in other relevant ways it patterns with the KNOWLEDGE class.

(i) Vanya boitsja ètogo /\*èto.  
 Vanya.NOM fears this.GEN/this.ACC  
 'Vanya fears this.'

- b. Vanja ponimal /znal èto.  
 Vanya.NOM understood/knew this.ACC.  
 ‘Vanya understood/knew it.’

Even though there are some syntactic differences between the CERTAINTY and the KNOWLEDGE class (see footnote 6), they are not crucial for my purposes, hence I will be speaking of the CERTAINTY/KNOWLEDGE class, largely ignoring these differences.

I will now discuss distribution restrictions on the realization of *čto*-clause with the CERTAINTY/KNOWLEDGE-class nouns. These nouns can appear in a limited range of contexts, some of which are illustrated in (9a-c) for *uverennost’* ‘certainty’ and in (10a-c) for *ponimanie* ‘understanding’. As can be seen, these contexts express very ‘basic’ meanings such as (coming into) possession, as in (9a) and (10a-c), causation of possession, as in (9b) and (10d), externalization of a mental state, as in (9c). Particular verbs that express these meanings are partially lexically determined by the choice of the complement-taking noun and have the flavor of collocations of the kind discussed by Lyutikova (2010) in her treatment of noun-complement constructions with infinitival complements.<sup>5</sup>

- (9) a. U Vani byla/pojavilas’/voznikla uverennost’, čto èto  
 at Vanya.GEN was/appeared /emerged certainty.NOM that this.nom  
 proizojdet.  
 will happen  
 ‘Vanya had/came to the certainty that this would happen.’  
 b. Èto {vseljalo v Vanju /vnušalo Vane}  
 this.NOM instill in Vanya.ACC /suggested Vanya.DAT  
 uverennost’, čto tak i proizojdet.  
 certainty.ACC that so PRT will happen  
 ‘This instilled in Vanya the certainty that it would so happen.’  
 c. Vanya vyrazil/vyskazal uverennost’, čto èto  
 Vanya.NOM expressed/pronounced certainty.ACC that this.NOM  
 proizojdet.  
 will happen  
 ‘Vanya expressed the certainty that this would happen.’  
 (10) a. U Vani bylo ponimanie, čto nado čto-to  
 at Vanya.GEN was understanding that necessary something.ACC  
 menjat’.  
 change.  
 ‘Vanya had the understanding that it was necessary to change something.’  
 b. K Vane prišlo ponimanie, čto nado čto-to menjat’.  
 to Vanya.DAT came understanding that necessary something.ACC change.  
 ‘Vanya came to the understanding that it was necessary to change something.’

<sup>5</sup> For reasons of space I do not provide a full list of collocations here, limiting myself only to a few examples.

- c. Vanya prišel k ponimaniju, što nado što-to  
 Vanya.NOM came to understanding.DAT that necessary something.ACC  
 menjat'.  
 change.  
 'Vanya came to the understanding that it was necessary to change  
 something.'
- d. Èto privelo Vanyu k ponimaniju, što nado  
 this.NOM led Vanya.ACC to understanding.DAT that necessary  
 što-to menjat'.  
 something.ACC change.  
 'This led Vanya to the understanding that it was necessary to change  
 something.'

Despite appearances, the distribution of the CERTAINTY/KNOWLEDGE-class nouns with *što*-clauses is not limited to a fixed number of collocations. One systematic context that is not lexically restricted is one where the complement-taking noun is the subject of a phrase involving some mentally involved participant (which does not have to be overtly realized), as illustrated in (11a-b):

- (11) a. Uverenost' /ponimanie, što èto proizojdet,  
 certainty.NOM/understanding.NOM that this.NOM will happen  
 raduet Ø/Vanyu.  
 makes happy Vanya.ACC  
 'The certainty/understanding that this would happen makes one/Vanya  
 happy.'
- b. Uverenost' /ponimanie, što èto proizojdet,  
 certainty.NOM/understanding.NOM that this.NOM will happen  
 perepolnjaet Ø/Vanino serdce.  
 overfills Vanya's heart.ACC  
 'The certainty/understanding that this would happen overfills  
 one's/Vanya's heart.'

We can note that in general contexts in which the CERTAINTY/KNOWLEDGE class nouns can appear with *što*-clauses are characterized by the two properties listed in (12a-b):

- (12) In the presence of a *što*-clause,  
 a. the understood experiencer of a CERTAINTY/KNOWLEDGE-class noun is not overtly realized (as a possessor DP);  
 b. the understood experiencer of a CERTAINTY/KNOWLEDGE-class noun is construed with one of the argument (perhaps implicit) of the matrix clause.

I will now show (for *uverennost'* 'certainty') that whenever these properties do not hold, a *čto*-clause cannot appear. First, note that the contexts in (9a-b) and (11b) do not permit overtly expressed experiencers, as shown, in (13a-b). The contexts that do permit overt experiencers are (9c) and (11a), represented in (13c-d). In all of these contexts the understood possessor, represented as  $\emptyset$ , has to be coindexed with one of the arguments in the matrix clause.

- (13) a. U Vani<sub>i</sub> byla/voznikla/pojavilas' { \*ego/\*svoja/ $\emptyset$ <sub>i/\*j</sub> }  
 at Vanya.GEN was/emerged/appeared his / self's  
 uverennost'...  
 certainty.NOM
- b. Èto { vseljalo v Vanyu<sub>i</sub> /vnušalo Vane<sub>i</sub>  
 his.NOM instill in Vanya.ACC/suggested Vanya.DAT  
 { \*ego/\*svoju/ $\emptyset$ <sub>i/\*j</sub> } uverennost'...  
 his/ self's certainty.ACC
- c. { \*Ego/\*svoja/ $\emptyset$ <sub>i/\*j</sub> } uverennost'... perepolnjaet Vanino<sub>i</sub>  
 his / self's certainty.NOM overfills Vanya's  
 serdce.  
 heart.ACC
- d. Vanya<sub>i</sub> vyrazil { \*ego/svoju/ $\emptyset$ <sub>i/\*j</sub> } uverennost'...  
 Vanya.NOM expressed his /self's certainty.ACC
- e. { Ego<sub>j</sub>/\*svoja/ $\emptyset$ <sub>i/\*j</sub> } uverennost'... radovala Vanyu<sub>i</sub>.  
 his / self's certainty.NOM made happy Vanya.ACC

Consider now examples with overtly expressed experiencers, corresponding to (13d) and (13e) and illustrated in (14) and (15). As shown in (14a) and (15a), a *čto*-clause cannot be realized, in accordance with (12a). Note that this constraint only applies to the construction with a *čto*-clause, as the corresponding examples with nominal complements headed by the correlative *to* 'it' associated with a *čto*-clause are possible, as shown in (14b) and (15b-c).<sup>6</sup>

- (14) a. ?\*Vanya vyrazil svoju uverennost', čto èto proizojdet  
 Vanya.NOM expressed self's certainty that this.NOM will happen  
 intended: 'Vanya expressed his certainty that this would happen.'
- b. Vanya vyrazil svoju uverennost' v tom, čto èto  
 Vanya.NOM expressed self's certainty in it.LOC that this.NOM  
 proizojdet.  
 will happen  
 'Vanya expressed his certainty that this would happen.'
- (15) a. ?\*Ee uverennost'/ponimanie, čto èto proizojdet,  
 her certainty.NOM/understanding.NOM that this.NOM will happen  
 raduet Vanyu.  
 makes happy Vanya.ACC  
 'Her certainty/understanding that this would happen makes Vanya happy.'

<sup>6</sup> Example in (15c) and other examples involving the KNOWLEDGE- and (sometimes) PROOF-class nouns with overt possessor DP and *to, čto*-clauses in genitive are somewhat degraded, which I don't quite understand.

- b. Ee uverennost' v tom, što èto proizojdet, raduet  
 her certainty.NOM in it.LOC that this.NOM will happen makes happy  
 Vanyu.  
 Vanya.ACC  
 'Her certainty that this would happen makes Vanya happy.'
- c. ?Ee ponimanie togo, što èto proizojdet,  
 her understanding.NOM it.GEN that this.NOM will happen  
 raduet Vanyu.  
 Vanya.ACC makes happy  
 'Her certainty/understanding that this would happen makes Vanya happy.'

Let's turn to contexts without overtly expressed experiencers. As stated in (12b), the understood experiencer has to be coindexed with an argument for the realization of a *što*-clause. This is shown by examples (16), with *uverennost'* 'certainty', and (17), with *ponimanie* 'understanding'. In (16) the understood Experiencer has a free reference and would tend to be disjoint from the matrix subject for pragmatic reasons. In (17) the understood Experiencer also has a free reference and would normally be interpreted as disjoint from the speaker. In accordance with (12a), *što*-clauses cannot be realized, as shown (16a) and (17a); cf. the corresponding examples with *to*, *što*-clauses in (16b) and (17b).

- (16) a. ?\*On ob"jasnjaj uverennost', što èto proizojdet,  
 he.NOM explained certainty.ACC that this.NOM will happen  
 dvumja faktorami  
 two.INS factors.INS  
 intended: 'He explained the certainty that this may happen by two factors.'
- b. On ob"jasnjaj uverennost' v tom, što èto mozet  
 he.NOM explained certainty.ACC in it.LOC that this.NOM can  
 proizojti, dvumja faktorami.  
 happen two.INS factors.INS  
 'He explained the certainty that this may happen by two factors.'
- (17) a. ?\*V Rossii ne očevidno ponimanie, što èto  
 in Russia.LOC not evident understanding.NOM that this.NOM  
 mozet privesti k tjaželym posledstvijam.  
 may lead to heavy consequences.DAT  
 intended: 'The understanding that this may lead to harsh consequences is not evident.'
- b. V Rossii ne očevidno ponimanie togo, što èto  
 in Russia.LOC not evident understanding it.GEN that this.NOM  
 mozet privesti k tjaželym posledstvijam.  
 may lead to heavy consequences.DAT  
 'The understanding that this may lead to harsh consequences is not evident.'

Having looked at the restrictions observed with the CERTAINTY/KNOWLEDGE-class nouns, we now turn to the second class of nouns.

## 2.2 The PROOF class

Nouns of the second class, listed in (18), are subject nominalizations of the so-called bisentential verbs, i.e. transitive verbs that take two arguments with propositional meaning (see Moulton 2009: 62 and references therein); cf. (19a-b). I will refer to them as the PROOF class, in accordance with the established terminology. Just like the KNOWLEDGE class, PROOF-class nouns assign genitive to their nominal complement (see examples in section 3.2.2).

- (18) PROOF class
- |                                     |                                      |
|-------------------------------------|--------------------------------------|
| <i>dokazatel'stvo</i> 'proof'       | < <i>dokazyvat</i> 'prove'           |
| <i>podtverždenie</i> 'confirmation' | < <i>podtverždat</i> 'confirm'       |
| <i>svidetel'stvo</i> 'evidence'     | < <i>svidetel'stvovat</i> 'indicate' |
- (19) a. Ètot fakt dokazyvaet, što kartina poddel'naja.  
his fact.NOM proves that painting.NOM fake  
'This fact proves that the painting is fake.'
- b. Èti dannye podtverždajut, što on vozglavit kafedru.  
these data.NOM confirm that he.NOM will head department.ACC  
'These data confirm that he would head the department.'

The distribution of the PROOF-class nouns with *što*-clauses is restricted in the following way. They can be used in contexts of (coming into) possession, as illustrated in (20a) and (21a-c), causation of possession, as in (20c), and, finally, with intensional predicates as in (20d). Again these contexts have the flavor of collocations.

- (20) a. U Ivana est'/pojavisis' dokazatel'stva, što kartina  
at Ivan.GEN is /appeared proofs.ACC that painting.NOM  
poddel'naja.  
fake  
'Ivan has/got the proof that the painting is fake.'
- b. Ivan predstavil/pred"javil/privel /predostavil im  
Ivan.NOM present /produced /brought/provided them.DAT  
dokazatel'stva, što kartina poddel'naja.  
proofs.ACC that painting fake  
'Ivan provided them with the proof that the painting is fake.'
- c. Im nužny /trebujutsja dokazatel'stva, što kartina  
them.DAT necessary/required proofs.ACC that painting.NOM  
poddel'naja.  
fake  
'They need the proof that the painting is fake.'



- d. Oni našli /iščut dokazatel'stva, što kartina poddel'naja.  
they.NOM found/seek proof.ACC that painting.NOM fake  
'They found/are looking for the proof that the painting is fake.'
- (21) a. U nix est' podtverždenija, što on vozglavit  
at them.GEN is confirmations.NOM that he.NOM will head  
kafedru.  
department.ACC  
'They have the confirmation that he would head the department.'
- b. Im prišlo ot Ivana podtverždenie, što on  
the.DAT came from Ivan.GEN confirmation.NOM that he.NOM  
vozglavit kafedru.  
will head department.ACC  
'They got the confirmation from Ivan that he would head the  
department.'
- c. Oni polučili ot Ivana podtverždenie, što on  
they.NOM got from Ivan.GEN confirmation.ACC that he.NOM  
vozglavit kafedru.  
will head department.ACC  
'They got the confirmation from Ivan that he would head the  
department.'

We can observe that these contexts are characterized by the following properties, listed in (22):

- (22) In the presence of a *što*-clause,  
a. the prenominal possessor of a PROOF-class noun is not overtly realized;  
b. the sentence with a PROOF-class noun can be paraphrased with the respective source verb in its agentive use (without insertion of other material with lexical meaning).<sup>7</sup>

The restriction in (22a) is illustrated in contexts (23a) and (24a). As can be seen, the overt possessor blocks the realization of a *što*-clause; cf. (23b) and (24b), where a *to*, *što*-clause is possible.

- (23) a. ?\* Ivan predstavil/pred''javil/privel/predostavil svoi dokazatel'stva,  
Ivan.NOM present /produced / bring /provided self's proofs. ACC  
što kartina poddel'naja.  
that painting.NOM fake  
'Ivan provided the proof that the painting is fake.'

<sup>7</sup> The condition in (22b) is apparently falsified by examples like (i), where the complement-taking noun is the complement of a copula-like predicate. I will analyze these examples on a par with the SIGN-class nouns; see section 3.2.3.

(i) Èto služit/javljaetsja dokazatel'stvom, što kartina poddel'naja.  
this.NOM serves/is proof.INS that painting.NOM fake  
'This serves as/is the proof that the painting is fake.'

- b. Ivan predstavil/pred''javil/privel/predostavil svoi dokazatel'stva  
Ivan.NOM present /produced / bring /provided self's proofs.ACC  
togo, čto kartina poddel'naja.  
it.GEN that painting.NOM fake  
'Ivan provided the proof that the painting is fake.'
- (24) a. ?\*Im nužny/trebujutsja ego dokazatel'stva, čto kartina  
them.DAT necessary/required his proofs.ACC that painting.NOM  
poddel'naja.  
fake  
'They need the proof that the painting is fake.'
- b. Im nužny /trebujutsja ego dokazatel'stva toga, čto  
them.DAT necessary/ required his proofs.ACC it.GEN that  
kartina poddel'naja.  
painting.NOM fake  
'They need the proof that the painting is fake.'

As for (22b), let's first look at the available paraphrases for sentences in (20) and (21). The ones for (20a-d), are illustrated in (25a-d), respectively. The ones for (21a) and (21b-c) are given in (26a) and (26b), respectively. The paraphrases in (25)-(26) are not exact but they closely reflect the meaning of sentences in (20)-(21).

- (25) a. Ivan mozet dokazat', čto kartina poddel'naja.  
Ivan.NOM can prove that painting.NOM fake  
'Ivan can/could prove that the painting is fake.'
- b. Ivan dokazal, čto kartina poddel'naja.  
Ivan.NOM proved that painting.NOM fake  
'Ivan proved that the painting is fake.'
- c. Im nužno /trebuetsja dokazat', čto kartina poddel'naja.  
them.DAT necessary/ required prove that painting.NOM fake  
'They need to prove that the painting is fake.'
- d. Oni smogli/pytajutsja dokazat', čto kartina poddel'naja.<sup>8</sup>  
they.NOM could /try prove that painting.NOM fake  
'They managed to/are trying to prove that the painting is fake.'
- (26) a. Oni mogut podtverdit', čto on vozglavit kafedru.  
they.NOM can confirm that he.NOM will head department.ACC  
'They could confirm he would head the department.'
- b. Ivan podtverdil im, čto on vozglavit kafedru  
Ivan.NOM confirmed them.DAT that he.NOM will head department.ACC  
'Ivan confirmed them that he would head the department.'

Consider next examples where such paraphrases are not available, given in (27)-(28). This is because the matrix subject cannot be construed as the agent of the of the respective source predicate in the potential paraphrase. In accordance with (22b), a *čto*-

<sup>8</sup> I am assuming here that 'seek' contains 'try' as part of its meaning.

clause cannot be realized, as shown in (27a) and (28a); cf. the corresponding examples with *to*, *čto*-clauses in (27b) and (28b).

- (27) a. ?\*Komissija rassmatrivaet dokazatel'stva, čto kartina  
committee.NOM considers proofs.ACC that painting.NOM  
poddel'naja.  
fake  
'The committee is considering the proof that the painting is fake.'
- b. Komissija rassmatrivaet dokazatel'stva togo, čto kartina  
committee.NOM considers proofs.ACC it.GEN that painting.NOM  
poddel'naja.  
fake  
'The committee is considering the proof that the painting is fake.'
- (28) a. ?\*V ètom oni videli podtverždenie, čto on vozglavit  
in this.LOC they.NOM saw confirmation.ACC that he.NOM will head  
kafedru.  
department.ACC  
'In this they saw the confirmation that he would head the department.'
- b. V ètom oni videli podtverždenie togo, čto on  
in this.LOC they.NOM saw confirmation.ACC it.GEN that he.NOM  
vozglavit kafedru.  
will head department.ACC  
intended: 'In this they saw the confirmation that he would head the  
department.'

Having discussed distributional restrictions on the CERTAINTY/KNOWLEDGE- and the PROOF-class nouns, let's turn to the third, and last, class of nouns.

### 2.3 The SIGN class

The third class of nouns, listed in (29), are two-place relational nouns that do not correspond to verbal predicates (even though are *verojatnost'* and *vozmožnost'* are nominalizations of epistemic adjectival predicates). I will call these nouns the SIGN class, alluding to the fact that Safir (1985) included *sign* in what later became known as the PROOF class. Just like the PROOF and the KNOWLEDGE class, the SIGN-class nouns, assign genitive to their complement (see examples in section 3.2.3).

- (29) SIGN class  
*priznak* 'sign'  
*znak* 'sign'  
*verojatnost'* 'likelihood'  
*vozmožnost'* 'possibility'  
*šans* 'chance'

The SIGN-class nouns seem to show the most idiosyncratic restrictions when appearing with a *čto*-clause. Apart from the existential construction, generally available for these nouns, as shown in (30), different nouns seem to be restricted to different contexts such as the context of copula(-like) verbs in (31a-b) for *priznak* ‘sign’, the context of an evaluative adjective in (32) for *verojatnost* ‘likelihood’ and the collocation verbs introducing an attitude holder in (33a-b) for *vozmožnost* ‘possibility’.

- (30) Est’ *priznaki* /*verojatnost*’, *čto* *eto* skoro *proizojdet*.  
is signs.NOM/likelihood.NOM that this.NOM soon will happen  
‘There are signs/is likelihood that this will happen soon.’
- (31) a. *Èto* /*vot* *vernij* *priznak*, *čto* *kto-to* doma.  
this.NOM/here true sign.NOM that someone.NOM home  
‘This is/here is the proof that the painting is fake.’  
b. *Èto* *služit* /*javljaetsja* *vernym* *priznakom*, *čto* *kto-to*  
this.NOM serves/is true sign.INS that someone.NOM  
doma.  
home  
‘This serves as the proof that the painting is fake.’
- (32) *Velika* *verojatnost*’, *čto* *Ivan* *priedet* v *ponedel’nik*.  
high likelihood.ACC that Ivan.NOM will come in Monday  
‘The likelihood that Ivan will come on Monday is high.’
- (33) a. *Oni* *dopuskali* *vozmožnost*’, *čto* *Ivan* *priedet* v  
they.NOM allowed possibility.ACC that Ivan.NOM will come in  
*ponedel’nik*.  
Monday  
‘They allowed for the possibility that Ivan would come on Monday.’  
b. *Oni* *ne* *isključali* *vozmožnosti*, *čto* *Ivan*  
they.NOM not excluded possibility.GEN that Ivan.NOM  
*priedet* v *ponedel’nik*.  
will come in Monday  
‘They didn’t exclude the possibility that Ivan would come on Monday.’

Despite the infrequency of these contexts, we can note that all of them can be characterized by the following property, given in (34):

- (34) In the presence of a *čto*-clause,  
a sentence with a SIGN-class noun, expresses an epistemic judgment (on the part of some argument in the matrix clause or the speaker) with respect to the sentential complement of that noun.

That this restriction is satisfied in contexts (30)-(33) can be seen by the availability of paraphrases involving epistemic adjectives, as in (35a), corresponding to (30)-(32), and propositional attitude verbs, as in (35b), corresponding to (33):

- (35) a. (Očen') verojatno, što...  
           very likely that  
           'It is (very) likely that...'  
       b. Oni dopuskali, što...  
           they.NOM assumed that  
           'They assumed that...'

Consider now the examples in (36) and (37). Here there is no expression of epistemic judgement and, as shown by the unavailability of paraphrases like (35) for these examples. Consequently, in accordance with (34) the realization of *što*-clauses is blocked, as shown in (36a) and (37a); cf. the corresponding examples with *to*, *što*-clause in (36b) and (37b).

- (36) a. \*Oni obsuždali verojatnost', što Ivan  
           they.NOM discussed likelihood.ACC that Ivan.NOM  
           priedet v ponedel'nik.  
           will come in Monday  
           intended: 'They discussed the likelihood of Ivan coming on Monday.'  
       b. Oni obsuždali verojatnost' togo, što Ivan  
           they.NOM discussed likelihood.ACC it.GEN that Ivan.NOM  
           priedet v ponedel'nik.  
           will come in Monday  
           'They discussed the likelihood of Ivan coming on Monday.'
- (37) a. \*Oni perečislili priznaki, što Ivan uklonjalsja  
           they.NOM enumerated signs.ACC that Ivan.NOM evaded  
           ot uplaty nalogov.  
           from payment.GEN taxes.GEN  
           intended: 'They enumerated the signs indicating that Ivan evaded paying taxes.'  
       b. Oni perečislili priznaki togo, što Ivan uklonjalsja  
           were enumerated signs.ACC it.GEN that Ivan.NOM evaded  
           ot uplaty nalogov.  
           from payment.GEN taxes.GEN  
           'They enumerated the signs indicating that Ivan evaded paying taxes.'

This concludes the discussion of the distributional restrictions on the realization of *što*-clauses in noun-complement constructions. I will now turn to my account of these restrictions.

### 3. The account of the data

#### 3.1 The proposal: Silent P and its licensing

My account for the observed restrictions on the appearance of *što*-clauses as complements of the three classes of nouns discussed above is based on the two major

assumptions, given in (38). The assumption in (38a) is motivated by a  $\theta$ -theoretic approach to the Case Filter, which I adopt. Note that despite its historical flavor, it still remains a possible theoretical underpinning for the existence of abstract Case (see Rezac 2013 for some discussion). The assumption in (38b) involves a familiar kind of reasoning about situations in which a particular syntactic requirement cannot be met.

- (38) a. Sentential arguments require syntactic licensing in the form of structural Case;  
 b. When there is no apparent structural-Case-assigner, the clause gets Case by the last resort insertion of a silent preposition, which I will simply refer to as P.

Let's now turn to the noun-complement constructions discussed in section 2. I adopt the standard assumption that nouns do not assign structural Accusative.<sup>9</sup> Given that sentential complement of the nouns in these constructions are true arguments, by (38a-b), these complements will be licensed by P. How would account for the observed restrictions on *čto*-clauses? The answer lies in the licensing conditions for P.

Given that semantically vacuous elements are banned by the principle of Full Interpretation (see Chomsky 1995), P has to get some interpretation. In particular, I would like to propose that P is interpreted as a relation of possession (of propositional content), which I will refer to as HOLD. P is thus similar to the silent preposition P<sub>HAVE</sub> proposed by Harley (2002) for the double object construction, the major difference being that P selects for CPs (and not for DPs).

Now that P is a preposition with a relational (possessive) content, it is semantically a predicate and hence is expected to be subject to conditions that govern integration of predicates into the clause on a par with locative (directional) PPs which are also analyzed as predicates (see Botwinik-Rotem 2004 and references therein). In particular I assume that P is subject to the following conditions, summarized in (39).

- (39) P requires a local c-commanding non-oblique subject.

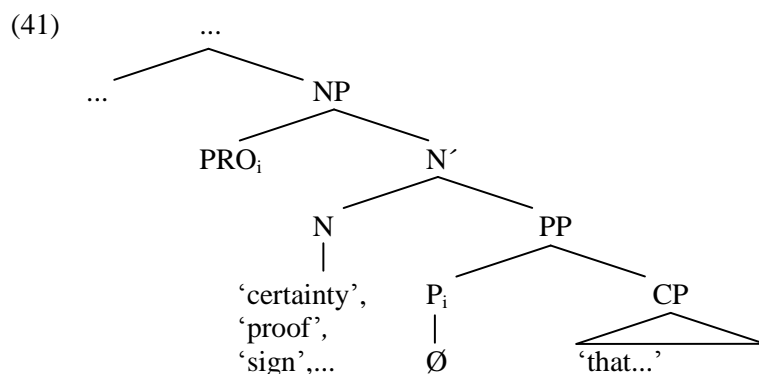
Locality and c-command are standardly assumed restrictions on predication. For the purposes of this paper, I will take "local" to mean 'within the projection of the complement-taking noun'. I also adopt the more specific non-obliqueness restriction on predication (whether or not it follows from the condition on c-command or not); see Rothstein 2006 and references therein. The non-obliqueness restriction is illustrated in (40) for locative/directional PPs, from Wechsler (1997). In (40d) the locative PP cannot be realized, as opposed to (40b), because the other PP, being oblique, cannot serve as an appropriate subject for the locative PP, as opposed to the direct object in (40b). Note that the failure of (40d) is not due to the non-expression of the direct object, as (40a) shows.

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<sup>9</sup> Here I am assuming that genitive is not structural case in Russian and is associated with a prepositional structure on a par with other oblique cases (see immediately below).

- (40)
- a. John loaded the hay.
  - b. John loaded the hay onto the truck.
  - c. John loaded the truck with hay.
  - d. \*John loaded with hay onto the truck.

In the proposed account of noun-complement construction, the realization of a *čto*-clause will be determined by whether P has a potential subject to be predicated of. In cases where a *čto*-clause is acceptable the appropriate subject will be provided by an implicit argument, which I take to be (a variety of) PRO, experiencer in the case of the CERTAINTY/KNOWLEDGE-class, agent in the case of the PROOF-class, and judge in the case of the SIGN-class nouns. The general structure is given in (41), where the coindexation reflects the predication relation. In cases where a *čto*-clause is unacceptable, as I will show, there will be either lacking any potential subject at all or it will be oblique and hence inappropriate for predication.



For the proposed account to work, I also assume that P (along with other relational prepositions) is different from prepositions introducing the so-called PP complements, illustrated in (42a-b), which have a purely functional role (see Botwinik-Rotem 2004). The latter are not relational predicates and hence do not require any syntactic licensing associated with predication. This difference is crucial for the account of the contrast between (bare) sentential complements of nouns and PP complements with propositional meaning, i.e. those embedding *to*, *čto*-clauses, which are not restricted in ways that *čto*-clauses are, as was shown in section 2.

- (42)
- a. John relies on his intuition.
  - b. John believes in love.

I will also be assuming, following Bayer et al. (2001), that oblique cases, including genitive, are assigned by the respective P<sub>OBL</sub>, which pattern with functional Ps in their non-relational uses. This will be necessary to account for the fact that *to*, *čto*-clauses marked with genitive case pattern with PP complements in noun-complement constructions.

Having introduced the general proposal, let's now see how it can account for the distributional restrictions on *čto*-clauses discussed in section 2.

### 3.2. The analysis of the distributional restrictions

#### 3.2.1 The CERTAINTY/KNOWLEDGE class

The generalization governing the realization of *čto*-clauses with CERTAINTY/KNOWLEDGE class is repeated in (43):

- (43) In the presence of a *čto*-clause,
- the understood experiencer of a CERTAINTY/KNOWLEDGE-class noun is not overtly realized (as a possessor DP);
  - the understood experiencer of a CERTAINTY/KNOWLEDGE-class noun is construed with one of the argument (perhaps implicit) of the matrix clause.

I will start with the blocking effect of the overt possessor, as stated in (43a), and illustrated in (44) and (45), repeated from (14) and (15) in a simplified form.

- (44) a. ?\*Vanya vyrazil svoju uverennost', čto...  
           Vanya.NOM expressed self's certainty.ACC that  
       b. Vanya vyrazil svoju uverennost' v tom, čto...  
           Vanya.NOM expressed self's certainty.ACC in it.LOC that
- (45) a. ?\*Ee uverennost', čto..., raduet Vanyu.  
           her certainty.NOM that makes happy Vanya.ACC  
       b. Ee uverennost' v tom, čto..., raduet Vanyu.  
           her certainty.NOM in it.LOC that makes happy Vanya.ACC

The reason why (44a) and (45a) are unacceptable is the following. According to my analysis, these examples have structures as in (46a) and (46b), respectively. The only potentially available subject for P will be the possessor, as represented by coindexation.

- (46) a. \*Vanya vyrazil [<sub>DP</sub> svoju<sub>i</sub> uverennost', P<sub>i</sub> čto... ].  
       b. \* [<sub>DP</sub> Ee<sub>i</sub> uverennost', P<sub>i</sub> čto... ], raduet Vanyu.

The coindexation in (46), however, violates the non-obliqueness requirement in (39). This is because Russian possessors are adjectival elements (see, e.g. Bošković 2005) and hence cannot be treated as direct arguments.<sup>10</sup> The fact that possessors in Russian are

<sup>10</sup> According to my analysis genitive arguments are also oblique and hence genitive possessors are also expected to induce the blocking effect on the realization of *čto*-clauses. This is borne out, as shown in (i):

(i) Uverennost' Maši \*(v tom), čto èto proizojdet, raduet Vanyu.  
       certainty.NOM Masha.GEN in it.LOC that this.NOM will happen makes happy Vanya.ACC  
       'Masha's certainty that this would happen makes Vanya happy.'



not appropriate subjects for predication is testified by examples like (47a)-(47b), with a secondary predicate marked with instrumental case (see Bailyn 2012); cf. (47c).<sup>11</sup>

- (47) a. ?\* Auditoriju šokirovalo Vanino vystuplenie p'janym .  
audience.ACC shocked Vanya's performance.NOM drunk .INS  
intended: 'Vanya's performing drunk shocked the audience.'  
b. ?\*Vanja ploxo pomnil svoe vystuplenie p'janym.  
Vanya.NOM badly remembered self's performance.ACC drunk .INS  
intended: 'Vanya badly remembered performing drunk.'  
c. Vanja vystupal p'janym.  
Vanya.NOM performed drunk .INS  
'Vanya performed drunk.'

Examples with PP complements in (44b) and (45b) do not violate the non-obliqueness requirement since the complement of the nouns is introduced by functional prepositions, which are not subject to the licensing conditions on predication.

Consider next the contexts without overt possessors. According to (43b), *čto*-clauses are only acceptable in these contexts if the understood possessor of the complement-taking noun is construed with another argument of the matrix clause. For convenience, the contexts in (9a-c) and (11a-b) are repeated in a simplified form as (48a-e):

- (48) a. U Vani byla /pojavilas'/voznikla uverennost', čto...  
at Vanya.GEN was /appeared /emerged certainty.NOM that  
b. Vanya vyrazil /vyskazal uverennost', čto...  
Vanya.NOM expressed/pronounced certainty.ACC that  
c. Èto {vseljalo v Vanju /vnušalo Vane}  
this.NOM instill in Vanya.ACC/suggested Vanya.DAT  
uverennost', čto...  
certainty.ACC that  
d. Uverennost', čto..., raduet (Vanyu).  
certainty.NOM that makes happy Vanya.ACC  
e. Uverennost', čto..., perepolnjaet (Vanino) serdce.  
certainty.NOM that overfills Vanya's heart.ACC

How does the proposed account explain the acceptability of these examples?

<sup>11</sup> Interestingly, English possessors are not adjectival and hence count as non-oblique for the purposes of predication, as suggested by examples like (ia-b) from Safir (1987). This could be the basis for why in English overt possessors are compatible with sentential complements of nouns, as shown by examples in (iia-b), repeated from section 1:

- (i) a. Andy's arrival drunk created controversy.  
b. Joe's discussion of this issue stoned created confusion.  
(ii) a. John's proof that the fly is a mammal amused the experts.  
b. Kevin's certainty that the tent is in the car is not reassuring.

I will analyze implicit external arguments of nouns as structurally represented (see e.g. Sichel 2010 and references therein). In particular, I will assume that implicit agents/experiencers of nominalizations can be either *pro* or *PRO* (cf. Landau 2010 and Sichel 2010), depending on whether the argument in question is referentially dependent on some other argument.<sup>12</sup> I will further assume that the variety of *PRO* in the referential dependent case is arbitrary *PRO* (*PRO*<sub>arb</sub>).<sup>13</sup>

Following Williams (1992), I assume that *PRO*<sub>arb</sub> is licensed by Logophoric Control. That is, it has to have as antecedent the logophoric center of the sentence, or the argument that “must at least be a thinker, perceiver, or some such, whose thoughts or feelings are reported by the sentence” (Williams 1992: 300). Logophoric Control of an infinitival clause in the so-called Super-Equi construction is illustrated in (49). Here the contrast between the acceptable (49a) and the unacceptable (49b) follows from the fact that John is not the logophoric center of the sentence in (49b), as opposed to (49a), because the sentence reports his aunts mental state. Consequently, it cannot antecede the *PRO* subject of the infinitive.

- (49) a. To find himself alone in Times Square became one of John’s most abiding fears.  
 b. \*To find himself alone in Times Square became one of John’s aunt’s most abiding fears.

An important syntactic property of Logophoric Control is that it does not require a c-commanding antecedent, as suggested by (49a). Logophoric antecedent can also be implicit, as in (50a) or even absent at all, as in (50b), as long as “the “point of view” of the sentence is clear” (Williams 1992: 300). The “point of view” Logophoric Control will be very important for the analysis of the *SIGN*-class nouns in section 3.2.3.

- (50) a. Having Just arrived in town, the new hotel seemed like a good place for a stop.  
 b. Having travelled all day, the hotel was a vision indeed.

Let’s return to examples in (48). Given the assumptions above, the understood experiencer of the complement-taking noun in (48a-e) will be represented as *PRO*<sub>arb</sub>, which will be coindexed with a suitable logophoric antecedent. This is represented in (51a-e), corresponding to (48a-e).

<sup>12</sup> This contrasts with Sichel’s (2010) analysis, who takes implicit agents of nominalizations to be uniformly pronominal. Even though she accepts that certain predicates bias the interpretation of the implicit agent towards one of the arguments she does not analyze this referential dependency as arbitrary control. Landau (2010), in contrast, assumes that implicit agents of nominalizations are uniformly *PRO*.

<sup>13</sup> As pointed to me by Katya Lyutikova (p.c.), referentially dependent implicit agents of nominalization can be analyzed as not projected at all. I find, however, this analysis problematic for examples like (11a), where the overt possessor can be structurally realized. By the uniformity considerations one expects that if projection of the argument is possible in a given context, then the argument is always projected in this context.

- (51) a. U Vani<sub>i</sub> pojavilas'/voznikla [PRO<sub>i</sub> uverennost', P<sub>i</sub> čto...].  
 b. Vanya<sub>i</sub> vyrazil/vyskazal [PRO<sub>i</sub> uverennost', P<sub>i</sub> čto...].  
 c. Èto {vseljalo v Vanju<sub>i</sub> / vnušalo Vane<sub>i</sub>} [PRO<sub>i</sub> uverennost', P<sub>i</sub> čto...].  
 d. [PRO<sub>i</sub> uverennost', P<sub>i</sub> čto...], raduet Vanyu<sub>i</sub>.  
 e. [PRO<sub>i</sub> uverennost', P<sub>i</sub> čto...], perepolnjaet Vanino<sub>i</sub> serdce.

The final step is to show that P can be predicated of PRO<sub>arb</sub>, as represented by the coindexation in (51). This is testified by the example in (52a), with a secondary predicate, which, according to my judgment, is significantly better than (47a-b); cf. (52b), which shows that the implicit agent requires a logophoric antecedent and hence can be analyzed as PRO<sub>arb</sub> on a par with examples in (48).<sup>14</sup>

- (52) a. Vystuplenie pjany<sub>m</sub> sdělalo Vanju zvezdoj.  
 performance.NOM drunk.INS made Vanya.ACC star.INS  
 'Vanya's performing drunk made Vanya a star.'  
 b. PRO<sub>i/\*j</sub> vystuplenie pjany<sub>m</sub> sdělalo Vaninogo<sub>j</sub> djadju<sub>i</sub>  
 performance.NOM drunk .INS made Vanya's uncle.ACC  
 zvezdoj.  
 star.INS  
 'Vanya's uncle's drunk made Vanya a star.'

To summarize, *čto*-clauses are acceptable in contexts where the understood possessor of the complement-taking noun is construed with another argument of the matrix clause, as stated in (43b), because (i) it is those contexts in which PRO<sub>arb</sub> can be projected; and (ii) PRO<sub>arb</sub> can serve as an appropriate subject for P.

Now why do the contexts where the understood experiencer has free reference prohibit the realization of *čto*-clauses, as illustrated in (53a)-(53b), repeated from (16a)-(17a) in a simplified form:<sup>15</sup>

- (53) a. ?\*On ob''jasnj<sub>al</sub> uverennost', čto..., dvumja faktorami.  
 he.NOM explained certainty.ACC that two.INS factors.INS  
 b. ?\*V Rossii ne očevidno ponimanie, čto...  
 in Russia.LOC not evident understanding.NOM that

Given that the in these examples the implicit experiencer is not referentially constrained, it will be analyzed as a silent pronominal, as represented in the corresponding structures in (55a-b). Now assuming that this pronominal has the same category as the overt pronominal, we expect that it will be oblique and hence an inappropriate subject for P. Consequently, a *čto*-clauses would not be licensed.

<sup>14</sup> Note that Vanya in (52a) is not a logophoric center in the strict sense but rather expresses the point of view of the sentence.

<sup>15</sup> Henceforth I will not repeat the corresponding examples with propositional PP complements. Under the proposed analysis, their acceptability would always follow from the fact they do not impose any requirement on predication.

- (55) a. \*On ob''jasnjal [ $\text{pro}_i$  uverenost',  $P_i$  čto... ], dvumja faktorami.  
 b. \*V Rossii ne očevidno [ $\text{pro}_i$  ponimanie,  $P_i$  čto... ].

The fact that implicit but referentially free agents of nominalizations cannot host predicational PPs is shown by the degradedness of the example in (56), with a secondary predicate:

- (56) ?\*V statje obsuždalos'  $\text{pro}_i$  vystuplenie na konferencii  
 in article.LOC discussed performance.NOM on conference.LOC  
 p'janym.  
 drunk.INS  
 intended: 'A performance made drunk was discussed in the article.'

To conclude, in the presence of overt possessors, the realization of *čto*-clauses with the CERTAINTY/KNOWLEDGE class nouns is blocked since adjectival possessors in Russian are adjectival and hence violate the non-obliqueness condition on predication imposed by P. This accounts for (43a). In the absence of overt possessors, the licensing of P is only possible if the experiencer is projected as PRO, which counts as non-oblique for the purposes of predication. PRO, in its turn, is only licensed in (logophoric) control environments. This accounts for (43b).

### 3.2.2 The PROOF-class

The generalization governing the realization of *čto*-clauses with PROOF-class nouns is repeated in (57):

- (57) In the presence of a *čto*-clause,  
 a. the prenominal possessor of a PROOF-class noun is not overtly realized;  
 b. the sentence with a PROOF-class noun can be paraphrased with the respective source verb in its agentive use (without insertion of other material with lexical meaning).

My analysis of these nouns is essentially similar to the analysis of the CERTAINTY/KNOWLEDGE class. The unacceptability of *čto*-clauses in the presence of overt possessors, as stated in (57a) and illustrated in (58a)-(58b), repeated from (23a)-(24a) in a simplified form, would follow from the failure of P to find an appropriate subject for predication. The only potential subject in the structure is the possessor. However, since it is oblique it violates the licensing condition on P in (39). Consequently, the realization of a *čto*-clause will be blocked. This is shown in (59a)-(59b):

- (58) a. ?\*Ivan predstavil/pred''javil/privel/predostavil svoi dokazatel'stva,  
 Ivan.NOM present /produced /bring /provided self's proofs.ACC  
 čto...  
 that

- (59) a. ?\*Im nužny /trebujutsja ego dokazatel'stva, čto...  
 them.DAT necessary/required his proofs.ACC that  
 \*Ivan predstavil/pred''javil/privel/predostavil [svoi<sub>i</sub> dokazatel'stva, P<sub>i</sub>  
 čto...]  
 b. \*Im nužny/trebujutsja [ego<sub>i</sub> dokazatel'stva, P<sub>i</sub> čto...]

The requirement on the availability of an appropriate paraphrase, as stated in (57b), can be explained in the following way. Consider the examples in (60a-d), repeated from (20a-d) in a simplified form, and (61a-c), repeated from (21a-c):

- (60) a. U Ivana est'/pojavisis' dokazatel'stva, čto...  
 at Ivan.GEN is /appeared proofs.ACC that  
 b. Ivan predstavil/pred''javil/privel /predostavil dokazatel'stva, čto...  
 Ivan.NOM present /produced / brought/provided proofs.ACC that  
 c. Im nužny /trebujutsja dokazatel'stva, čto...  
 them.DAT necessary/required proofs.ACC that  
 d. Oni našli /iščut dokazatel'stva, čto...  
 they.NOM found/seek proof.ACC that  
 (61) a. U nix est' podtverždenija, čto on vozglavit  
 at them.GEN is confirmations.NOM that he.NOM will head  
 kafedru.  
 department.ACC  
 b. Im prišlo ot Ivana podtverždenie, čto...  
 the.DAT came from Ivan.GEN confirmation.NOM that  
 c. Oni polučili ot Ivana podtverždenie, čto...  
 they.NOM got from Ivan.GEN confirmation.ACC that

As shown in section 2.2, these examples have close paraphrases involving source verbs in their agentive use. Suppose that this semantic affinity is syntactically represented by way of projecting the agentive PRO in the subject (specifier) position of the nouns, which will be controlled by an appropriate argument. Something similar has been proposed by Davies and Dubinsky (2003) for cases like *sing (one's) song*, *tell (one's) story* and also for cases like *make the claim* or *start the rumour*, which involve sentential complements. Note that the projection of the agentive PRO is not correlated with the morphological makeup of the noun but rather depends on whether it can be construed in a particular way (see Davies and Dubinsky 2003 for details).

Adopting this idea, I will analyze examples like (60a-c) and (61a-c), as in (62a-d) and (63a-c), respectively. Given that controlled implicit argument of nouns is PRO<sub>arb</sub>, as I suggested in section 3.2.1, the PRO subject will be licensed by Logophoric Control and hence will allow non-c-commanding antecedent.<sup>16</sup> Now that we already established that PRO<sub>arb</sub> can serve as an appropriate subject for P, P will be licensed and consequently *čto*-clauses will be acceptable.

<sup>16</sup> Note that in Davies and Dubinsky's (2003) examples agentive PRO is always controlled by the grammatical subject. However, this is not a principled restriction and might be due to the type of the data they were looking at.

- (62) a. U Ivana<sub>i</sub> est'/pojavisil'sja [PRO<sub>i</sub> dokazatel'stva, P<sub>i</sub> čto... ].  
 b. Ivan<sub>i</sub> predstavil/pred''javil/privel/predostavil [PRO<sub>i</sub> dokazatel'stva, P<sub>i</sub> čto...].  
 c. Im<sub>i</sub> nužny/trebujutsja [PRO<sub>i</sub> dokazatel'stva, P<sub>i</sub> čto...].  
 d. Oni<sub>i</sub> našli/iščut [PRO<sub>i</sub> dokazatel'stva, P<sub>i</sub> čto...].
- (63) a. U nix<sub>i</sub> est' podtverždenija, [PRO<sub>i</sub> čto on vozglavit kafedru].  
 b. Im prišlo ot Ivana<sub>i</sub> [PRO<sub>i</sub> podtverždenie, P<sub>i</sub> čto... ].  
 c. Oni polučili ot Ivana<sub>i</sub> [PRO<sub>i</sub> podtverždenie, P<sub>i</sub> čto... ].

Now consider the examples in (64a-b), repeated from (27a) and (28b) in a simplified form. As I showed in section 2.2, these examples do not have paraphrases involving the source verbs in their agentive use, hence PRO will not be licensed in these examples. Consequently, P will not have an appropriate subject to be predicated of and thus violate the requirement in (39). The projection of a non-overt possessor will not help since it would be referentially free and, as a pronominal, would be oblique and thus also not suited for licensing of P. Since P will not be licensed, *čto*-clauses will not be acceptable, as stated in (57b).

- (64) a. ?\*Komissija rassmatrivaet dokazatel'stva, čto...  
           committee.NOM considers proofs.ACC that  
 b. ?\*V ètom oni videli podtverždenie, čto...  
           in this.LOC they.NOM saw confirmation.ACC that

To conclude, in the presence of overt possessors, the realization of *čto*-clauses with the ROOF-class nouns is blocked since possessors in Russian are oblique and hence cannot serve as an appropriate subject for P. This accounts for (57a). Otherwise the licensing of P is only possible if the agentive PRO is projected and thus can serve as the subject of P. Agentive PRO, in its turn, is only licensed in environments where a paraphrase with the source verb (in its agentive use) is possible. This accounts for (57b).

### 3.2.3 The SIGN class

Finally, we turn to the SIGN class-nouns, governed by the generalization in (65):

- (65) In the presence of a *čto*-clause, a sentence with a SIGN-class noun, expresses an epistemic judgment (on the part of some argument in the matrix clause or the speaker) with respect to the sentential complement of that noun.

How does the proposed account explain this generalization?

I would like to tentatively assume that SIGN-class nouns in cases where they are used to express an epistemic judgment, as in examples (66a-d), repeated from (30), (31a), (32) and (33a), respectively, have an argument slot that is filled by an implicit judge argument, responsible for the epistemic judgment. By doing so, I am essentially extending Stephenson's (2007) analysis of predicates of personal taste like *fun* to the

SIGN-class nouns. Although this assumption requires further elaboration, it exactly accounts for the observed data.

Given that implicit arguments of nouns are represented as  $PRO_{arb}$ , the judge argument will be logophorically controlled either by the speaker, as in (66a-c) or by the matrix subject – recall cases like (50b) from section 2.1, – as in (66d).<sup>17</sup> Since  $PRO_{arb}$  is an appropriate subject for predication, the licensing conditions for P will be satisfied and a *čto*-clause will be acceptable. This is represented in (67a-d), corresponding to (66a-d):<sup>18</sup>

- (66) a. Est' priznaki/verojatnost', čto...  
       is signs.NOM/likelihood.NOM that  
       b. Èto/vot vernyj priznak, čto...  
       this.NOM/here true sign.NOM that  
       c. Velika verojatnost', čto...  
       high likelihood.NOM that  
       d. Oni dopuskali vozmožnost', čto...  
       they.NOM allowed possibility.ACC that
- (67) a. Est' priznaki/verojatnost',  $P_{Speaker}$  čto...  
       b. Èto/vot vernyj priznak,  $P_{Speaker}$  čto...  
       d. Oni dopuskali vozmožnost',  $P_i$  čto...  
       d. Velika verojatnost',  $P_{Speaker}$  čto...

As to contexts, where no epistemic judgement is expressed with respect to the complement clause, as in (68a, b), repeated from (37a) and (38a), no implicit judge argument can be projected since it would not be controlled. Consequently, P will not have an appropriate subject to be predicated of and will not be licensed. This accounts for why *čto*-clauses are not acceptable, as stated in (65).

- (68) a. \*Oni obsuždali verojatnost', čto...  
       they discussed likelyhood.ACC that  
       b. \*Oni perečislili priznaki, čto...  
       they.NOM enumerated signs.ACC that

To conclude, the realization of *čto*-clauses with the SIGN-class nouns depends on whether the context allows for the projection of a judge argument represented as  $PRO$ , which serves as the subject of P.

<sup>17</sup> One question that remains under this analysis is why nouns like *priznak* 'sign' and PROOF-class nouns, when taking epistemic judge arguments (see footnote 19), strongly disfavor control by the matrix subject even when that subject seems to be necessarily construed as the judge, as shown in (i); see also (28a).

(i) ?\*V ètom oni videli podtverždenie/priznaki \*(togo), čto...  
       in this.LOC they.NOM saw confirmation / signs.ACC it.GEN that  
       intended: 'In this they saw the confirmation/signs of the fact that...'

<sup>18</sup> This analysis can be extended to apparent counterexamples involving PROOF-class nouns in the context of copula-like verbs; see (i) in footnote 7. This is justified by the fact these nouns in the relevant context also express an epistemic judgment (on the part of the speaker).

#### 4. Conclusions

In this paper I discussed distributional restrictions on the realization of *čto*-clauses with the three classes of complement-taking nouns in Russian that are taken in the literature to be true argument-takers. I argued that these restrictions follow the Case requirement of sentential arguments, which is satisfied by insertion of a silent preposition P and the licensing conditions on predication imposed by P.

In particular I showed that P requires a non-oblique subject, which accounts for why possessors, which are oblique in Russian, cannot serve as appropriate subjects for P and consequently block realization of *čto*-clauses.

I accounted for the acceptability of *čto*-clauses in certain contexts where possessor is absent by showing that in those contexts an implicit argument of the noun is projected. This implicit argument is represented as (arbitrary) PRO, which is non-oblique, and hence can serve as an appropriate subject for P. The semantic nature of this implicit argument depends on the class of a complement-taking noun. It is experiencer in the case of CERTAINTY/KNOWLEDGE-class nouns, implicit agent in the case of the PROOF class nouns and implicit judge in the case of SIGN-class nouns. I further argued that the restriction on the distribution of *čto*-clauses with those nouns to certain contexts follows from the fact that the implicit subject can only appear in those contexts where it can be (logophorically) controlled.

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