Licensing clausal complements

The case of Russian *čto*-clauses

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The case of Russian *čto*-clauses

Condities op zinscomplementen

De casus van Russische *čto*-zinnen

(met een samenvatting in het Nederlands)

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CHAPTER 1

Introduction

1.1 Overview of the puzzle

In this dissertation I will investigate the licensing conditions on finite complement clauses in Russian.

To this end I will use the following interesting puzzle posed by complement clauses with the complementizer *čto* (*čto*-clauses) as a probe. A number of verbs that can be used both with agentive and non-agentive subjects allow *čto*-clauses only when their subject is agentive. I will illustrate this by the verbs *govorit'* 'say' and *grozit'* 'threaten'.

Let's start from *govorit'* 'say'. *Govorit'* 'say' allows an agentive and a non-agentive use. In its agentive use, this verb generally realizes its propositional argument as a *čto*-clause, as in (1a). Another way of realizing the propositional argument is by a *čto*-clauses preceded by the so-called correlative pronoun *to* (*to*,*čto*-clause) and embedded in a PP headed by *o* 'about', as shown in (1b). In this case the verb has the meaning of 'talk about'.

(1) a. Učenye govorjat, čto na ètoj territorii ran'še žili
scientists.NOM say that on this territory.LOC earlier lived
ljudi.
people.NOM

'Scientists say that earlier people used to live on this territory.'

b. Učenye govorjat o tom, čto na ètoj territorii
scientists.NOM say about it.LOC that on this territory.LOC
ran'še žili ljudi.
earlier lived people.NOM
'Scientists are talking about the fact that earlier people used to live on this territory.'

In its non-agentive use, in which it has the meaning of 'indicate', *govorit'* 'say' only allows a *to*,*čto*-clause embedded in a PP, as in (2b), and disallows a *čto*-clause, as shown in (2a).[1]

(2) a. * Èti naxodki govorjat, čto na ètoj territorii ran'še
these findings.NOM say that on this territory.LOC earlier
žili ljudi.
lived people.NOM
Intended: 'These findings indicate that earlier people used to live on this territory.'

b. Èti naxodki govorjat o tom, čto na ètoj
these findings.NOM say about it.LOC that on this
territorii ran'še žili ljudi.
territory.LOC earlier lived people.NOM
'These findings indicate that earlier people used to live on this territory.'

The agentive and the non-agentive *govorit'* 'say' also differ in the realization of their propositional argument as a nominal complement. In its agentive use, the verb allows both an accusative noun phrase, as in (3a), or a PP, as in (3b). In contrast, in its non-agentive use, *govorit'* 'say' can take a PP complement but not an accusative noun phrase, as shown in (4a)–(4b).

(3) a. Čto govorjat učenye?
what.ACC say scientists.NOM
'What are scientists saying?'

b. O čem govorjat učenye?
about what.LOC say scientists.NOM
'What are scientists talking about?'

(4) a. * Čto govorjat èti naxodki?
what.ACC say these findings.NOM
Intended: 'What do these findings indicate?'

b. O čem govorjat èti naxodki?
about what.LOC say these findings.NOM
'What do these findings indicate?'

[1] For some speakers examples like (2a) are not fully ungrammatical. I discuss this issue in Chapter 3.

In a nutshell, the verb *govorit'* 'say' disallows a *čto*-clause complement (as well as an accusative complement) when it takes a non-agentive subject and allows a *čto*-clause complement (as well as an accusative complement) when it takes an agentive subject.

The same general pattern (with minor differences) is shared by the verb *grozit'* 'threaten'. *Grozit'* 'threaten' allows a construction with a propositional argument expressing the content of the threat and generally realized as an instrumental phrase, illustrated in (5). In this construction, the verb can take an agentive and a non-agentive subject, as shown in (5a)–(5b).

(5) a. Načal'nik grozit Maše uvol'neniem.
boss.NOM threatens Masha.DAT dismissal.INS
'The boss threatens Masha with dismissal.'

b. Opozdanie grozit Maše uvol'neniem.
being late.NOM threatens Masha.DAT dismissal.INS
'Being late threatens Masha with dismissal.'

In a fashion parallel to *govorit'* 'say', the agentive *grozit'* 'threaten' can realize its propositional argument as a *to,čto*-clause marked with instrumental case, as shown in (6a), or a 'bare' *čto*-clause, as in (6b).[2] In contrast, the non-agentive *grozit'* 'threaten' allows only a *to,čto*-clause, as in (7a), and disallows a *čto*-clause, as shown in (7b).

(6) a. Načal'nik grozit Maše tem, čto ona budet uvolena.
boss.NOM threatens Masha.DAT it.INS that she.NOM will be fired
'The boss threatens Masha with the fact that she will be fired.'

b. Načal'nik grozit Maše, čto ona budet uvolena.
boss.NOM threatens Masha.DAT that she.NOM will be fired
'The boss threatens Masha that she will be fired.'

(7) a. Opozdanie grozit Maše tem, čto ona budet uvolena.
being late.NOM threatens her.DAT it.INS that she.NOM will be fired
'Being late threatens Masha with being fired.'

b. * Opozdanie grozit Maše, čto ona budet uvolena.
being late.NOM threatens her.DAT that she.NOM will be fired
Intended: 'Being late threatens Masha with being fired.'

[2] Examples like (6b) have a colloquial flavor but they are clearly acceptable.

Table 1.1: The realization of arguments of *govorit'* 'say' and *grozit'* 'threaten'

verb	subject argument	propositional argument		
		OBL/PP	ACC	*čto*-clause
govorit' 'say'	agent	*o*	✓	✓
	non-agent	*o*	✗	✗
grozit' 'threaten'	agent	Ins	✗	✓
	non-agent	Ins	✗	✗

Unlike *govorit'* 'say', *grozit'* 'threaten' disallows the realization of the propositional argument as the accusative DP in both its agentive and non-agentive uses, as shown in (8); cf. (5a)–(5b).

(8) * { Načal'nik / opozdanie} grozit ej uvol'nenie.
boss.NOM / being late.NOM threatens her.DAT dismissal.ACC
Intended: 'The boss/being late threatens her with being fired.'

The pattern displayed by *govorit'* 'say' and *grozit'* 'threaten' is illustrated in Table 1.1. In a nutshell, the puzzle, which I will refer to as the agentivity puzzle, is that in their non-agentive uses these verbs disallow *čto*-clause complements despite the fact that they allow propositional arguments with the same meaning but realized as *to*,*čto*-clauses and the fact that they allow *čto*-clause complements in their agentive uses.

The agentivity puzzle resists an immediate account in terms of selection (see, a.o, Grimshaw 1979, Pesetsky 1982, Alrenga 2005), assuming that the agentive and the non-agentive uses of these verbs belong to the same lexical entry and thus share selectional properties, which I extensively argue for in Chapter 3 (see, in particular, section 3.2.5). As a result, there must be some other account for the agentivity puzzle. In this dissertation I propose such an account. In the next section I give a brief sketch of my account, which I fully develop in chapters 2 and 3.

1.2 The proposal in a nutshell

The essence of the solution I propose for the agentivity puzzle is that *čto*-clauses require Case licensing.

Consider first the pattern observed with *govorit'* 'say', as shown in Table 1.1. The non-agentive variant of *govorit'* 'say' disallows a *čto*-clause, whereas the agentive variant allows it. The obvious difference between the agentive and the non-agentive *govorit'* is that only the former assigns Accusative Case. Now suppose that a *čto*-clause requires Case. In the agentive version of the verb

the Case requirement of the *čto*-clause will be satisfied. In the non-agentive version, however, the *čto*-clause will fail to receive Accusative Case and hence will not be licensed, correctly predicting the unacceptability of (2a).

Turning to *grozit'* 'threaten', we may note that the failure of the non-agentive *grozit'* 'threaten' to take a *čto*-clause in (7b) will also follow since this verb does not assign Accusative Case, as I showed in (8). This account, however, is incomplete. Recall that the agentive version does not assign Accusative Case either, as shown in (8), so we have to explain how a *čto*-clause ends up licensed in this case.

To deal with this problem I would like to argue that there is another way to satisfy the Case requirement of a *čto*-clause. Concretely, I propose that the Case requirement of the clause in (6b) is satisfied by a silent element, in particular, a null preposition that I will refer to as P_{CP}.

In a nutshell, there are two ways to satisfy the Case requirement of sentential complements. This is summarized in (9).[3] The Case requirement itself can be viewed as an extension of the traditional Case Filter to sentential complements. I will provide theoretical motivation for this requirement in section 1.4.2.

(9) *The Case requirement of* čto*-clauses*
A *čto*-clause complement has to be licensed by Case. This can be realized in one of the following two ways:
(a) the sentential complement is assigned structural Case;
(b) the sentential complement is licensed by (a possibly silent) P.

Though it seems empirically correct, as stated, the Case requirement in (9) is too powerful; it overgenerates, predicting that *čto*-clauses will be allowed with the non-agentive *grozit* 'threaten' and *govorit'* 'say' if licensed by P_{CP}. It order to restrict the Case requirement, I propose that P_{CP} has a licensing condition that constrains its distribution. The rationale for this condition comes from the widely accepted principle of Full Interpretation (see Chomsky 1995). According to this principle, elements that make no semantic contribution to the meaning of the sentence are banned. Hence we expect that the content of the P_{CP} has to be "recovered". I propose a particular recovery mechanism inspired by Pustejovsky 1995 (see Chapter 3 for details) which derives the interpretation for P_{CP}, given in (10). The interpretation in (10) gives rise to the licensing condition for P_{CP} in (11), which is crucial for the account of its distributional restrictions.[4]

[3] See Chapter 5 for some discussion of English and the cross-linguistic validity of the Case requirement.

[4] As I argue in Chapter 3, P_{CP} has an additional requirement, given in (i).

(i) *The adjunction requirement of* P_{CP}
P_{CP} has to adjoin to a [+V] predicate.

(10) *The interpretation of* P_{CP}
P_{CP} is interpreted as a relation whose content is provided by the predicates **utter** or **hold**.

(11) *The licensing condition of* P_{CP}
In order for P_{CP} to be licensed, one of the arguments of the predicate taking P_{CP} as its complement has to be construed as the utterer or the holder of the proposition expressed by the complement of P_{CP} by virtue of the semantics of the predicate and the linguistic context.

Given the condition in (11), P_{CP} will fail to get licensed in the case of the non-agentive *govorit'* 'say' and *grozit* 'threaten' (see Chapter 3 for the details of the account). As a result, the unacceptability of *čto*-clauses with the non-agentive verbs will follow from the proposal that *čto*-clauses require Case licensing and the fact that neither of the two Case-licensing options – structural-case-assignment or P_{CP} – are available in this environment.

This completes the outline of the proposal to be defended in this dissertation. In the next section I will lay out my assumptions about Case, which will provide the background for the proposal.

1.3 Background on Case

In section 1.1 I showed that the fact that *čto*-clause complements are incompatible with the non-agentive *grozit* 'threaten' and *govorit'* 'say' cannot be accounted for by selection, a major factor that restricts the distribution of arguments. Another important factor in the distribution of arguments is Case. It is this factor that will ultimately derive the observed restrictions on the distribution of sentential complements. But before I show how this can be done, I will lay out my assumptions about Case.

Since the early 1980s, Case has been one of the central topics in generative grammar. The generative approach to Case, traditionally referred to as Case Theory, has undergone substantial changes and to present day continues to be a lively research area (see Lasnik 2008, Bobaljik and Wurmbrand 2008, Pesetsky and Torrego 2011 for helpful overviews). It would be virtually impossible to to review any recent approaches to Case (see, e.g., Sigurðsson 2012) in the confines of this work, especially given their complexity.[5]

Therefore, considering the fact that the main goal of my thesis is more empirically-oriented (i.e. to extend the scope of the Case Filter to sentential complements) and is not directly concerned with the mechanism of Case-licensing as such, I will restrict my discussion to more conservative approaches to Case incorporated in such work as Adger 2003, which largely follows Chomsky's (1995; 2000; 2001) foundational Minimalist work; for a recent instantiation of this view see Rezac 2013.

[5] Similarly, I cannot do justice to the prominent line of research stemming from Marantz's (1991) seminal paper, which attempts to eliminate (abstract) Case, leaving case morphology to PF.

1.3.1 Basic assumptions about Case

The traditional Case Theory is built around the simple observation that (overtly realized) nominals are assigned particular cases in particular positions. If no case is assigned in a given position (in which a nominal is in principle possible), that nominal will fail to appear in that position. This observation is formalized by the generalization traditionally called the Case Filter, given in one of its formulations in (12).

(12) *Case Filter*
*NP, if NP has phonetic content and has no Case.
(Chomsky 1981:49, cited in Bobaljik and Wurmbrand 2008)

The Case Filter trivially holds for nominals in languages with a rich morphological case system like Russian. But it can also be extended to languages like English if its nominals are treated as underlyingly assigned "abstract" Cases (to be distinguished from morphological cases), which have little or no morphological realization. The Case Filter can successfully explain why, for example, neither unmarked nouns, nor subject or object pronouns can appear as the subject of infinitive in examples like (13). Assuming the simple rules for Case assignment in English as in (14), no Case can be assigned in that position, hence the potential DP would end up without Case thus violating (12).[6]

(13) *They/*Them/*John to obtain funding is believed to be difficult.
(Rezac 2013)

(14) a. The subject of a finite clause is assigned Nominative.
b. The object of an active transitive verb is assigned Accusative.
c. The object of Ps or certain marked verbs is assigned Oblique.

Case Theory distinguishes Nominative- and Accusative-assignment as dependent on the presence of general structural properties such as finiteness (encoded by T) and transitivity (generally taken to be encoded by little v) from assignment of Oblique Case(s). The latter depends on the lexical properties of the head such as, e.g., P or V that assigns it (only certain Vs in English assign Oblique Case, different Ps in languages like Russian assign different Oblique Cases). This contrast is captured by the theoretical distinction between structural and inherent Case.[7]

[6] I disregard the assignment of Genitive (Saxon Genitive and *of*-insertion) for the sake of simplicity.

[7] Traditionally (see Chomsky 1981) inherent Case is distinguished from structural as being assigned in conjunction with a θ-role. This reflects the fact that Nominative is assigned to an argument independently of whether it has an external θ-role (thematic subject), internal θ-role (derived subject) or no θ-role (expletive). In a similar vein, Accusative can be assigned to subjects of ECM infinitives/small clause complements of the verb, which get their θ-role from the embedded predicate. In contrast, Oblique Case is assigned to an argument by a head that also assigns a θ-role to it.

The distinction between structural and inherent Case can be illustrated on the basis of the Russian data. In Russian Accusative is "suppressed" in nominalization, as shown in (15a)–(15b). In contrast, Dative and Instrumental remain unaffected by nominalization, as shown in (16a)–(16b) and (17a)–(17b). Given that nominalization affects syntactic structure associated with a verbal root but does not affect the root itself, these data follow if Accusative is dependent on the syntactic structure, whereas Oblique Cases depend on the choice of the root.

(15) a. Vrag razrušil gorod.
enemy.NOM destroyed city.ACC
'The enemy destroyed the city.'

b. razrušenie goroda / *gorod
destruction.NOM city.GEN / *city.ACC
'destruction of the city'

(adapted from Bailyn 2011)

(16) a. vladet' zemlej
to possess land.INS
'to possess land'

b. vladenie zemlej
possession.NOM land.INS
'possession of land'

(17) a. Pravitel'stvo pomožet malomu biznesu.
government.NOM will help small business.DAT
'The government will help small business.'

b. pomošč' malomu biznesu
help.NOM small business.DAT
'help for small business'

(Bailyn 2011:59–60)

Importantly, the distinction between structural vs. inherent Case is in principle independent from the direct vs. oblique Case. Inherent Case can show up as direct.[8] For example, in Russian certain prepositions including *na* and *v* assign accusative Case, as shown in (18a)–(19a). Yet this accusative is not affected by nominalization, as seen from (18b)–(19b) and hence should be treated as inherent.

(18) a. Ivan nadeetsja na uspex.
Ivan.NOM hopes on success.ACC
'Ivan hopes for success.'

[8] The opposite phenomenon where structural Case has oblique morphology is instantiated by the so-called quirky Case, which is sometimes analyzed as inherent Case with a structural Case feature on top; see Chomsky 2000.

b. nadežda na uspex
hope.NOM on success.ACC
'hope for success'

(19) a. Maša verit v pobedu.
Masha.ACC believes in victory.ACC
'Masha believes in victory.'

b. vera v pobedu
belief.NOM in victory.ACC
'belief in victory'

Similarly in English the Case assigned by P, which is often referred to as Oblique (see the rules in (14)), is morphologically indistinguishable from structural Accusative. Yet the two have important differences as the latter, for example, is affected by passivization and the relevant argument has to move to the subject position to get Nominative Case, as in (20a). In contrast, the object of P cannot be promoted to the subject position, as shown in (20b), because it already has received Case from P and has no motivation to move.[9]

(20) a. The book was given *t* to Harry.

b. * Harry was given a book to *t*.
(adapted from Hornstein and Weinberg 1981)

To conclude, even though structural and inherent Case may show up with the same morphology, the difference in the mode of assignment of Nominative/Accusative vs. Oblique Case as indicated in the rules in (14) provides a good approximation for identifying structural vs. inherent Case, respectively.

In the Agree framework (Chomsky 2000, 2001, 2008), the distinction between the mode of assignment of structural and inherent Case is standardly captured by treating structural Case as an uninterpretable feature on a nominal. This feature has to be valued in an Agree relation by an appropriate Case assigner (T for [Nom(inative)] and v for [Acc(usative)]) in order to be deleted. The resultant value of the Agree process is read by the morphological component to determine the actual case realization of the nominal. Following Rezac (2013), I assume that case realization does not straightforwardly reflect syntactic licensing relations as, e.g., some elements that need Case like null operators fail to realize it (this assumption will be important for the discussion of *čto*-clauses, which, as I will argue, get Case without realizing it).

[9] As is well known, objects of certain Ps can be promoted to the subject position, the phenomenon known as pseudopassive illustrated in (ia)–(ib). These examples are usually treated as involving reanalysis of the V-P into complex V; see Hornstein and Weinberg 1981.

(i) a. John was talked about.
b. Harry was cared for.
(Hornstein and Weinberg 1981:65)

As for inherent Case, it is usually taken to be an independent way of licensing DPs identified with selection (although the precise mechanism often remains unspecified); cf. the formulation of the Case Filter in Rezac 2013, given in (21).

(21) *DP-licensing [The Case Filter]*
DPs must be licensed through certain syntactic dependencies. Those that are not licensed by selection (*inherent Case*) must be licensed by an A-dependency to the clause (*structural Case*). In the Agree framework, this is Agree for [*u*Case] valuation and deletion.
(Rezac 2013:299)

Building on this general idea, I would like to adopt a concrete approach to inherent Case from Bailyn 2011. Bailyn treats inherent Case as a feature on the relevant head, which "must be satisfied by coming into contact with a like case feature at initial Merge" (Bailyn 2011:228), in a process he calls Case-at-Merge (see also Bailyn and Citko 1998). According to this proposal, inherent Case is treated on a par with structural Case as being represented by formal Case features, the difference between the two being only in the mode of the checking relation. As Bailyn puts it,

> The old observation that lexical cases are assigned at Deep Structure and Nominative and Accusative are assigned at Surface Structure now reduces to the notion that some cases are assigned at Merge, because of the feature makeup of the selecting head, and others are checked by the features of a higher head, later in the derivation. Naturally, some kind of Case Filter (Chomsky & Lasnik 1993) will rule out instances where a nominal is not associated with any checked case feature.
> (Bailyn 2011:231)

Accordingly, both structurally- and inherently-case-marked nominals are subject to the Case Filter.

Bailyn's (2011) approach to Case leads to the consequence in (22), which will be an important ingredient for providing theoretical motivation for the claim that sentential complements in Russian have to be licensed along the lines of (9), the central claim of this dissertation.[10]

(22) *The nature of inherent Case*
Inherent Case is represented as formal Case features.

In the next section I will further specify my assumptions about inherent Case.

[10] Marijana Marelj (p.c.) raises the question about whether the view on inherent Case represented in (22) is compatible with the standard Minimalist (e.g., Chomsky 2000) account of quirky Case as inherent Case with a structural Case feature on top (see also footnote 8 above). One possibility implied by Bailyn's (2011) discussion of what he analyzes as instances of quirky (oblique) Case in Russian (see footnote 14) is that such quirky Case is a surface phenomenon which is not represented in formal feature checking, as opposed to the corresponding superficially identical inherent Case.

1.3.2 Inherent Case is assigned by P

Before moving on, I would like to introduce one important assumption that I will be making throughout this dissertation. In the discussion above I identified (Oblique) Case assigned by Ps and certain marked verbs as inherent Case. Now I will take it one step further and assume that inherent Case is always assigned by (a possibly silent) P. I give the particular formulation in (23) from Landau (2010b), who makes this assumption for his analysis of object experiencers, which he argues to be oblique.[11]

(23) Universally, inherent case is assigned by P.
(Landau 2010b:20)

This proposal is supported by both empirical evidence and conceptual considerations. It is supported conceptually by uniformity considerations because it assigns the same structure to arguments that show similar syntactic behavior (oblique DPs and PPs). The empirical support is provided, e.g., by the following consideration. In English the second object in the double object construction, illustrated in (24a), is usually analyzed as bearing inherent Case (see Chomsky 1981). This is manifested by the fact that it cannot be promoted to the subject position in passivization, as seen in (24b). In this regard the second object is similar to the object of the PP in (24c), repeated from above. The proposal in (23), leading to the analysis in (25), allows to capture this similarity.

(24) a. John gave Harry a book.
b. * A book was given Harry.
cf. Harry was given a book.
c. * Harry was given a book to.
(adapted from Hornstein and Weinberg 1981)

(25) John gave Harry [$_{PP}$ P a book].

Guided by the principle in (23), I will analyze Russian oblique DP arguments as underlyingly PPs with a silent P assigning the respective case (see Pesetsky 2013 for the same analysis).[12] Under this analysis the examples in (16a) and (17a) will have the structure in (26a)–(26b) and similarly for other oblique cases.[13] I will refer generically to such silent Ps as P_{obl}, following Pesetsky's (2013) terminology.

(26) a. vladet' [$_{PP}$ P_{ins} zemlej].
to possess land.INS

[11] Landau (2010b) also cites bare NP adverbs and relative clauses, which have also been analyzed as involving nominals with inherent Case assigned by silent P; see McCawley 1988, Larson 1987.
[12] This analysis is also proposed in Schein 1995.
[13] Pesetsky (2013) treats (adnominal) Genitive as a distinct phenomenon, having a different source. However, he is forced to extend the P_{obl} analysis to Genitive as well in view of the existence of Ps that assign genitive such as *bez* 'without' and verbs that take genitive complements.

b. Pravitel'stvo pomožet [PP P_{dat} malomu biznesu].
government.NOM will help small business.DAT

One immediate concern for the P_{obl} analysis comes from the semantic content of silent Ps. If P_{obl} is a purely formal element checking the Case feature of the nominal, it might cause a problem at the conceptual-intentional interface, given the principle of Full Interpretation (see Chomsky 1995, Chomsky 1986), which requires representations at the interfaces to be fully legible. As an element without semantic interpretation, P_{obl} will not be legible at the conceptual-intentional interface, thus violating Full Interpretation. To handle that problem, I will assume that oblique cases have some (albeit impoverished) semantic content.[14] Further, I will assume that their semantic content is contributed by the respective P_{obl}. This is a necessary move in view of Bailyn's (2011) approach to inherent Case, according to which oblique Case features on the nominal are uninterpretable (see the previous section). The interpretative differences between various oblique DPs could only arise from the semantic differences located in P_{obl}. Thus P_{obl}s heading oblique complements are contentful and hence do not violate Full Interpretation.

The same proposal can be extended to overt Ps heading PP complements selected by the verb in cases like (27a)–(27b), which also have a rather impoverished semantic content, which still does not preclude them from satisfying Full Interpretation (see Neeleman 1997 and Botwinik-Rotem 2004 for some discussion.)

(27) a. John believes in love.
b. Mary relied on John.

Summarizing, we can maintain the assumption that Ps heading oblique complements and PP complements selected by verbs satisfy Full Interpretation. This will be important for the account of the agentivity puzzle proposed in Chapter 3 (see, in particular, 3.2.4).

1.4 The Case properties of sentential complements

In this section I will provide theoretical motivation for the Case requirement of *čto*-clauses in (9). But first I would like to give some background on Case properties of sentential complements.

[14] For a concrete proposal along these lines see Caha 2013, see also Sigurðsson 2012 and references therein for some discussion of the semantic content of individual cases. Note that in certain instances it is notoriously difficult (if not impossible) to identify the semantic contribution of a given oblique case. For example, such are themes marked with instrumental case discussed in Fowler 1996 (cf. (16a) from above), which Bailyn (2011) analyzes as an instantiation of quirky case marking.

1.4.1 The standard view

Sentential complements are generally analyzed as not having (structural) Case. This is standardly shown by the data such as (28)–(30), from Pesetsky and Torrego 2011. As shown in (28)–(29), CP complements unlike DP complements can but need not move to the subject position in passivization. Thus in contrast to DPs, they can remain in their thematic (object) position when the subject position is filled by an expletive, as shown in (28b)–(29b). Neither do they have to move when the another object is promoted to the subject position, as shown in (30), which likens them to PP complements; cf. (28a).[15]

(28) a. The book was put ___ under the table.
b. * It was put the book under the table.

(29) a. [That the world is round] was believed ___ by the ancient Greeks.
b. It was believed by the ancient Greeks [that the world is round].

(30) Mary was persuaded ___ [that the world was ending].

Assuming that the failure of DP to remain in its base position is due to the lack of structural-Case-assignment in that position, the data in (29b) and (30) can be taken to argue that CPs do not need structural Case.

Other facts usually advanced to show that sentential complements do not need Case concern their ability to serve as complements of adjectives and nouns. Adjectives are generally taken to lack structural-Case licensing, which explains their inability to take DPs as complements, as illustrated in (31a). Yet sentential complements are allowed, as shown in (31b). The same is true of nouns, as shown in (32a)–(32b).[16]

(31) a. Bill was afraid *(of) the storm.
b. Bill was afraid that the storm will be destructive.
(Pesetsky and Torrego 2004:502)

(32) a. proof *(of) the theorem.
b. I liked your proof [that Mary could not have committed the crime].
(Pesetsky and Torrego 2004:520)

Finally, the same point can made on the basis of the availability of clausal complements with verbs that disallow DP complements. For example, verbs

[15] When the subject position is not filled (by an expletive), as in (28a)–(29a), both DP and CP complements cannot remain in their thematic position and *must* move to the subject position. This movement, however, has another reason, namely EPP. In view of this possibility, examples like (28a)–(29a) are generally taken to be neutral as to the Case properties of the DP/CP.

[16] Interestingly, as I will show in Chapter 4, in the corresponding Russian examples clausal complements are not generally licensed, which I take as an argument for the Case requirement of *čto*-clauses.

like *complain* and *boast* cannot take nominal complements, as shown in (33a), yet CP complements are fine as in (33b). If these verbs lack the capacity to assign structural Case, which is supported by the ban on passivization, as in (33c), then (33b) might also suggest that CPs do not require Case.[17]

(33) a. * John complained/boasted that.
b. John complained/boasted that he could lift 100 pounds.
(Moulton 2013:8; originally from Postal 1994)
c. * It was complained that he was a spy.
(Sheehan 2011)

The data reviewed above is generally taken to support the view that sentential complements do not need any external Case licencing and are thus self-sufficient with respect to the Case requirement as opposed to DP complement, as argued by Pesetsky and Torrego (2004; 2011), see also earlier work by Pesetsky (1982; 1991).

Even though the claim that clausal complements do not need Case is empirically well-supported, it is still not a theoretical necessity given the approach to Case outlined in section 1.3.1. If inherent Case involves the same formal licensing mechanism as structural Case, the fact that clausal complements can appear in positions where no structural Case is licensed does not exclude that clausal complements are subject to a Case requirement, and that it is satisfied by inherent-Case-licensing. This is essentially the claim that I am going to make. In particular I will argue that in "Caseless" positions clausal complements are licensed by inherent Case provided by null P.[18]

Of course, this is not a minimal assumption. Hence the burden of proof is on my side. But before presenting the empirical evidence for this assumption I will show some data discussed in the literature that can provide conceptual support for the claim that sentential complements need Case.

[17] Other verbs often cited in the literature to make the same point include *remark*, *conjecture*, *hope* and some others (see Bošković 1997, a.o.). The data concerning these verbs are more problematic since even though they disallow "full-fledged" DP complements (see (ia)) they sometimes allows certain kinds of nominal complements such as *what* in (ib) from Rothstein 1992 and *something* in (ic) from Sheehan 2011 and also allow pasivization in (id) from Rothstein 1992; see also Epstein and Seely 2006. This might indicate that these verbs do license Accusative Case despite not selecting DP complements.

(i) a. We hoped *(for) a good result.
b. What John hopes *t* is that this will not happen again.
c. John hoped something.
d. It was hoped that this will not happen again.

[18] Although I will deal primarily with cases like (31b)–(33b), cases like (29b) are also potentially amenable to the same analysis. Indeed, it has already been proposed by Belletti (1988) that the object position of passive verbs is assigned inherent (partitive) Case. If partitive Case is always assigned by P, in accordance with (23) from section 1.3.2, then examples like (29b) will also involve the CP complement licensed by inherent Case.

1.4.2 Motivating the Case requirement of clauses

Despite the considerable evidence for the lack of Case requirement of CP complements reviewed above, it has been noted that in certain environments they do show "Case effects" leading to the idea that sentential complements optionally have Case features.

First of all, Bošković (1995) argues for the generalization in (34); see also Lasnik 2008.

(34) Although clauses can appear in Caseless positions they need Case when they function as subjects.

The generalization in (34) entails that clauses cannot appear in those subject positions where no Case is available. Such is the subject position of infinitive complements of passive/unaccusative verbs, shown in (35a)–(35d).[19] In contrast, in those subject positions where Case is available clauses are fine or less degraded, as in the finite sentence in (35c) or with an active ECM verb in (35d).[20]

(35) a. * It is likely [that John loves Mary] to be surprising.
b. * It was believed [that John likes Mary] to be surprising.
c. That John loves Mary is surprising.
d. ?? I believe [that John loves Mary] to be surprising.
(Bošković 1995:33)

To account for these data, Bošković (1995) assumes that *that*-clauses are optionally nominal expressions needing Case. This is implemented by the postulation of the optional Case feature on the complementizer *that*, which is viewed by Bošković as a reflex of its nominal (demonstrative) origin.

Abstracting away from the details of Bošković's (1995) account, the general idea is that a Cased CP will be chosen in those syntactic environments that for some reason require expressions with Case features, i.e. the subject position. On the other hand, in those environments where no Case is needed such as the ones discussed in the previous section, a Caseless CP will be chosen. Examples in (35a)–(35d) will be banned because they will require a Cased CP that will fail to receive Case.

A more modern version of this account can employ the proposal by Davies and Dubinsky (2009), who argue, developing Koster's (1978) original insight, that (sentential) subjects are always DPs. According to their proposal, sentential subjects such as in (35c), are embedded in a DP-shell headed by a null D.[21]

[19] Bošković (1995) attributes these facts and observation to Kitagawa (1986). Similar observations can also be found in Stowell 1981:151.

[20] Bošković (1995) notes that examples like (35d) are awkward, yet they are significantly better than examples like (35a)–(35d), indicating that the unacceptability of the latter is due to different/additional factors.

[21] The idea that sentential arguments are embedded in a nominal shell goes back to Rosenbaum 1967.

Consequently, *that*-clauses will be banned as subjects of infinitives, as in (35a)–(35d), since they will be embedded in a DP that will fail to receive Case.

The idea that sentential arguments can project a DP-layer can also explain a number of well-known facts about fronted CPs that can be summarized by the generalization in (36) from Takahashi 2010.

(36) *The Moved Clausal Complement Generalization*
A clausal complement is allowed to move only if its base-generated position is one in which a DP is allowed to appear.

As an illustration consider first the sentential subject construction in (38a)–(38b). The crucial fact is that verbs like *hope* that disallow DP complements, as shown in (37a), cannot take a sentential subject when passivized, as shown in (38a). Note that passivization of *hope* as such is fine as shown in (38c). In contrast, verbs like *believe* that do allow DP complements, as shown in (37b), also allow the sentential subject construction, as in (38b).

(37) a. * Most baseball fans hoped/insisted that.
b. Most baseball fans believed/expected that.
(Alrenga 2005:183,186)

(38) a. * That the Giants would win the World Series was hoped/insisted (by most baseball fans).
b. That the Giants would lose was believed/expected by most baseball fans.
c. It was hoped/insisted (by most baseball fans) that the Giants would win the World Series.
(Alrenga 2005:183)

The inability of the passive *hope* to take a sentential subject is clearly linked to its inability to take a DP complement, which is explained if the passive construction with a sentential subject such as (38a) requires DP movement, as stated in (36).

Similar facts obtain for the sentential topic construction illustrated in (39a)–(39b). Verbs like *hope* disallow topicalization of sentential complements, as opposed to verbs like *believe*. Again this follows if the topicalization construction involving sentential topics as in (39a)–(39b) requires movement of the DP complement, which are unavailable for the *hope* class. This is again subsumed under the generalization in (36). The generalization is further supported by the fact that the construction is allowed with a stranded preposition as in (39c). The role of the preposition is to make the base position a position where DP can appear.

(39) a. * That the Giants would win the World Series, their fans have never stopped hoping.
b. That the moon is made of cheese, I've come to believe.

c. That the Giants would win the World Series, their fans have never stopped hoping for.

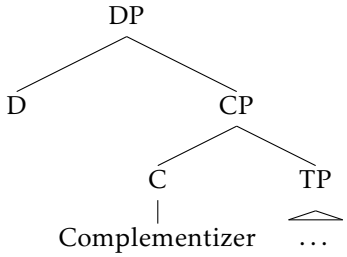
(Alrenga 2005:192)

To account for the generalization in (36), Takahashi (2010) proposes that constructions with fronted CPs involve movement of a sentential argument embedded in a DP-shell.[22] In his account the DP shell is in principle optional and is only forced when a sentential argument has to move.[23]

So far we have seen that there are a number of syntactic environments where sentential arguments behave as DPs, leading to proposals that sentential arguments have to be DPs in these environments by virtue of projecting a DP-layer. Given that in *some* environments clausal complements are DPs, we might wonder whether a more general claim holds, namely that *all* clausal arguments are DPs, i.e. always project a DP-layer. I formulate this hypothesis in (40). The general structure for clausal complements is given in (41).

(40) *The DP-layer conjecture*
Clausal complements always project a DP-layer.

(41)



The conjecture in (40) provides for a more uniform syntax, essentially unifying clausal complements with other DP complements, therefore *a priori* it is an interesting hypothesis to pursue (in Chapter 5 I discuss some broader theoretical motivation for this hypothesis).

In this dissertation I will provide evidence for the DP-layer conjecture on the basis of the distribution of the Russian *čto*-clauses. I will show that this conjecture provides a simple account of otherwise very puzzling patterns in the distribution of *čto*-clauses. I will also show some evidence for this conjecture from the English data even though the full justification for English as well as

[22] An alternative account involves movement of the null DP operator instead of the sentential argument, see Moulton 2013, Alrenga 2005, Koster 1978. Takahashi provides evidence for the movement of the sentential argument itself rather than an operator based on the data on reconstruction for variable binding, which would remain mysterious under a null-operator account. Moulton (2013) presents a complicated set of facts to show that reconstruction for variable binding can be achieved without movement dependencies. Independently of the status of these arguments, Moulton still allows for the possibility that certain fronted CPs are derived by movement.

[23] Takahashi's proposes that the DP-shell is required by the independently motivated mechanism for interpretation of traces.

for other languages will require further investigation (see some discussion in Chapter 5).

Assuming that the DP-layer conjecture is right, we expect that Russian *čto*-clauses complements are DPs and thus have Case features. The question then is how their Case features are checked. The simplest assumption is that whenever possible the Case features of sentential arguments are checked just like the corresponding Case features of ordinary DPs. Thus in structural Case positions, they will be checked by structural Case in the usual way. As for Caseless positions where ordinary DPs cannot appear such as complements of nouns, adjectives and –Acc verbs from section 1.4.1, our assumptions about Case lead us to the expect the following mechanism. Given that Case features in those positions cannot be licensed by structural Case, the only remaining option is inherent Case. This is fine if inherent Case is also represented as formal Case features, as I assumed in (22). Now given that inherent Case is assigned by merging with P, as I assumed in (23), the Case features in Caseless positions will have to be checked by a null P, precisely as stated in the Case requirement in (42), which I repeat from above. To summarize, the DP-layer conjecture and the assumptions about Case from section 1.3.1 derive the Case requirement in (42).

(42) *The Case requirement of* čto*-clauses*
A *čto*-clause complement has to be licensed by Case. This can be realized in one of the following two ways:
(a) the sentential complement is assigned structural Case;
(b) the sentential complement is licensed by a (possibly silent) P.

The Case requirement in (42) is the central claim that I argue for in this dissertation. This claim certainly requires empirical evidence. In subsequent chapters I provide such evidence on the basis of the distributional restrictions on *čto*-clauses.

1.5 Overview of the dissertation

In Chapter 2 I give a comprehensive description of the distribution of *čto*-clauses as opposed to *to*,*čto*-clauses to provide background for the subsequent arguments for the Case requirement that I offer in Chapter 3 and 4. I provide a unified analysis of *čto*-clauses and *to*,*čto*-clauses, where the latter instantiate *čto*-clause with an overt DP-layer. I also discuss distributional differences between *čto*-clauses and *to*,*čto*-clauses. I show that they follow from the proposed DP-layer account of *čto*-clauses coupled with some independently motivated assumptions about Case realization.

Chapter 3 provides the main empirical argument for the Case requirement of *čto*-clauses. Here I present the agentivity puzzle, already sketched in the Introduction, and develop the proposal about P_{CP}, which as I argue, is involved in the licensing of *čto*-clauses. I also provide a detailed analysis of the puzzling

verbs within Reinhart's (2002; To appear) Theta System and provide an account of the agentivity puzzle based on the Case requirement and the P_{CP} proposal.

Chapter 4 provides additional evidence for the Case requirement and the P_{CP} proposal based on the distribution of *čto*-clause complements of nouns. I focus on the two classes of nouns (nominalizations of subject experiencer predicates and nouns like 'proof') and argue that these nouns take *čto*-clauses only in a restricted set of contexts and show that this restriction directly follows from the P_{CP} proposal.

In Chapter 5 I give a summary of the main claims and arguments made in the dissertation. I also discuss some broader theoretical and cross-linguistic implications of the Case requirement. Finally, I discuss some empirical limitations of the study with an outlook for future research and give a general conclusion of the dissertation.

CHAPTER 2

Realization of Case in *čto*-clauses

2.1 The distribution of *čto*-clauses

In the previous chapter I conjectured that complement clauses always project a DP-layer. A major consequence of this proposal is that *čto*-clauses will be expected to share the distribution with other DPs, which appears problematic in view of the well-known distributional differences between sentential arguments and DPs. In this chapter I will examine these differences and show that they follow from the independent principles of Case realization and thus do not undermine the main proposal.

In general the distributional differences between *čto*-clauses and (ordinary) DPs can be divided into two types. Firstly, there are positions where DPs can but *čto*-clauses cannot appear and, secondly, there are positions where DPs cannot but *čto*-clauses can appear. I will first examine the positions where DPs can appear and then turn to positions where DPs cannot appear, referring to these as, respectively, Case and "Caseless" positions (scare quotes are used to anticipate the proposed account, according to which *čto*-clauses can be assigned Case by silent P).

2.1.1 *Čto*-clauses in Case positions

Perhaps the most prominent difference between sentential arguments and DPs concerns the position of the object of P. *Čto*-clauses cannot serve as objects of P, as shown in (1a)–(1c) for predicates *nadejat'sja* 'hope', *nastaivat'* 'insist' and *uveren* 'sure', which we saw above. In order to embed a *čto*-clause in a PP, one

has to insert the correlative *to* in the case governed by P before the *čto*-clause and thus get a *to*,*čto*-clause, as shown in (2a)–(2c).[1]

(1) a. * Maša nadeetsja na [čto u nee budet mnogo
Masha.NOM hopes on that at her.GEN will be a lot
svobodnogo vremeni].
free time.GEN
Lit.: '*Masha hopes for that she will have a lot of free time.'

b. * Vanja nastaivaet na [čto žit' v Moskve deševo].
Vanya.NOM insists on that to live in Moscow.LOC cheap
Lit.: '*Vanya insists on that it is cheap to live in Moscow.'

c. * Anja uverena v [čto u nee vse budet xorošo].
Anja.NOM sure in that at her all.NOM will be fine
Lit.: '*Anja is sure of that she will be fine.'

(2) a. Maša nadeetsja na to, [čto u nee budet mnogo
Masha.NOM hopes on it.ACC that at her.GEN will be a lot
svobodnogo vremeni].
free time.GEN
'Masha hopes that she will have a lot of free time.'

b. Vanja nastaivaet na tom, [čto žit' v Moskve
Vanya.NOM insists on it.LOC that to live in Moscow.LOC
deševo].
cheap
'Vanya insists that it is cheap to live in Moscow.'

c. Anja uverena v tom, [čto u nee vse budet xorošo].
Anja.NOM sure in it.LOC that at her all.NOM will be fine
'Anja is sure that she will be fine.'

The restriction on CP complements as objects of prepositions is noted in the literature (starting at least from Stowell 1981), where it is often referred as the *[P CP] constraint. The *[P CP] constraint is mentioned as a potential argument against a DP-shell account in Takahashi 2010, Moulton 2013. If sentential arguments are or can be DPs then there is no apparent way to

[1] The same construction is also observed with subjunctive clauses headed by the complementizer *čtoby*, as shown in (ib).

(i) a. Maša nastaivaet, čtoby oni priexali.
Masha.NOM insists that.SUBJ they.NOM came
'Masha insists that they come.'

b. Maša nastaivaet na tom, čtoby oni priexali.
Masha.NOM insists on it.LOC that.SUBJ they.NOM came
'Masha insists that they come.'

rule out examples such as (1a)–(1c). Thus it is important to understand why sentential arguments, at least of the *čto-* and *that*-clause kind are subject to this constraint unlike other DPs.[2]

Another DP position unavailable for a *čto*-clause is the thematic (preverbal) subject position. This is illustrated by the external arguments of verbs like *dokazyvat'* 'prove' and *značit'* 'mean', as shown in (3a)–(3b). Again *to*,*čto*-clauses, as well as ordinary DPs, are possible in this position, as shown in (4a)–(4b).

(3) a. * Čto on èto skazal, dokazyvaet ego nevinovnost'.
that he.NOM this.ACC said proves his innocence.ACC
'(The fact) that he said this proves his innocence.'

b. * Čto on priexal, značit, čto emu ne vse ravno.
that he.NOM came means that him.DAT not all the same
'(The fact) that he came means that he cares.'

(4) a. { Èto / to, čto on èto skazal,} dokazyvaet ego nevinovnost'.
this.NOM it.NOM that he.NOM this.ACC said proves his innocence.ACC
'{This/the fact that he said this} proves his innocence.'

b. { Èto / to, čto on priexal,} značit, čto emu ne vse ravno.
this.NOM it.NOM that he.NOM came means that him.DAT not all the same
'{This/the fact that he came} means that he cares.'

I will provide my account of the unacceptability of *čto*-clauses as objects of Ps and as preverbal subjects in section 2.2.2.

In some other DP positions, however, *čto*-clauses are fine. Firstly, this is the (postverbal) subject position associated with internal arguments and illustrated with verbs *udivljat'* 'surprise' in (5a), *volnovat'* 'worry' in (5b) and *nravit'sja* 'appeal' in (5c). *Čto*-clauses are also possible in the accusative direct object position. This is illustrated for verbs *skazat'* 'say', *znat'* 'know', *dokazyvat'* 'prove' and *podtverždat'* 'confirm' in (6a)–(6d).

(5) a. Menja udivljaet { ego priezd /, čto on priexal}.
me.ACC surprises his arrival that he.NOM came
'{His arrival/that he came} surprises me.'

[2] Note that this constraint is not universal as it is not operative, e.g., in Spanish (see Plann 1986) and Mainland Scandinavian languages (see Bošković 1995). Also note that, anticipating the proposed account, I will be taking the *[P CP] constraint not as a primitive but as an epiphenomenon derived from an independently motivated principle of Case realization (see section 2.2.2). Thus, for example, null P (to be proposed below) will not display the characteristic "*[P CP] pattern."

b. Ee volnuet { ego otsutstvie /, čto on ne zdes'}.
her.ACC worries his abscence.NOM that he.NOM not here
'{His absence/that he is not here} worries her.'

c. Maše ne nravitsja { ego povedenie /, čto on
Masha.DAT not appeals his behavior.NOM that he.NOM
kričit}.
shouts
'Masha does not like {his behavior/the fact that he is shouting}.'

(6) a. Maša skazala { èto /, čto ona ustala}.
Masha.NOM said this.NOM that she.NOM tired
'Masha said {this/that she is tired}.'

b. Anja znaet { èto /, čto on neprav}.
Anja.NOM knows this.NOM that he.NOM wrong
'Anja knows {this/that he is wrong}.'

c. Vanja dokazal { èto /, čto èta zadača ne
Vanya.NOM proved this.ACC that this problem.NOM not
imeet rešenija}.
has solution.GEN
'Vanya proved {this/that this problem does not have a solution}.'

d. Sereža podtverdil { èto /, čto ee tam ne
Serezha.NOM confirmed this.ACC that her.GEN there not
bylo}.
was
'Serezha confirmed {this/that she was not there}.'

Now turning to *to*,*čto*-clauses, these are generally fine in the postverbal nominative position, as shown in (7a)–(7c). As for the accusative position, the situation is more complex. *To*,*čto*-clauses are dispreferred in this position to varying degrees, as noted in Comrie 1971; see also Khomitsevich 2008. The effect is quite strong for certain verbs such as *skazat'* 'say', as shown in (8a) and (almost) absent for other verbs such as *podtverždat'* 'confirm', as shown in (8d); other verbs being somewhere in between, as shown in (8b)–(8c).[3] The

[3] Note also that the correlative *to* is possible (and in fact obligatory) when the sentential argument is focused (and bears focus stress), as shown in (ia)–(ib); see Khomitsevich 2008. I return to these examples in footnote 18.

(i) a. Maša skazala (tol'ko) TO, čto ona ustala.
Masha.NOM said only it.ACC that she.NOM tired
'Masha only said that she is tired.'

b. Anja znaet (tol'ko) TO, čto on neprav.
Anja.NOM knows only it.ACC that he.NOM wrong
'Anja only knows that he is wrong.'

acceptability of *čto*-clauses in object and postverbal subject position will again follow from the account proposed in section 2.2.2. It will also provide an explanation for why *to*,*čto*-clauses are degraded in the object position.

(7) a. Menja udivljaet to, čto on priexal.
me.ACC surprises it.NOM that he.NOM came
'The fact that he came surprises me.'

b. Ee volnuet to, čto on ne zdes'.
her.ACC worries it.NOM that he.NOM not here
'The fact that he is not here worries her.'

c. Maše ne nravitsja to, čto on kričit.
Masha.DAT not appeals it.NOM that he.NOM shouts
'Masha does not like the fact that he is shouting.

(8) a. ?* Maša skazala to, čto ona ustala.
Masha.NOM said it.ACC that she.NOM tired
Lit.: 'Masha said it that she is tired.'

b. ?? Anja znaet to, čto on neprav.
Anja.NOM knows it.ACC that he.NOM wrong
Lit.: 'Anja knows it that he is wrong.'

c. ? Vanja dokazal to, čto èta zadača ne imeet
Vanya.NOM proved it.ACC that this problem.NOM not has
rešenija.
solution.GEN
Lit.: 'Vanya proved it that this problem does not have a solution.'

d. (?) Sereža podtverdil to, čto ee tam ne bylo.
Serezha.NOM confirmed it.ACC that her.GEN there not was
Lit.: 'Serezha confirmed it that she was not there.'

Before concluding this section, I would like to say a few words about the so-called *capture* class verbs (see, e.g., Alrenga 2005). These are verbs that do not take sentential arguments even though they can take (Accusative) nominal complements introduced by abstract nouns such as 'fact', 'possibility', etc. In Russian this class can be illustrated by the verbs *otražat'* 'reflect' and *obsuždat'* 'discuss', which cannot take *čto*-clause complements, as shown in (9a)–(10a); cf. examples with nominal complement with the noun *fakt* 'fact' in (9b)–(10b).

(9) a. * Èto pravilo otražaet, [čto èti slova ne
this rule.NOM reflects that these words.NOM not
sklonjajutsja].
decline
Intended: 'This rule reflects the fact that these words do not decline.'

b. Èto pravilo otražaet tot fakt, [čto èti slova ne
this rule.NOM reflects that fact.ACC that these words.NOM not
sklonjajutsja].
decline
'This rule reflects the fact that these words do not decline.'

(10) a. * My obsuždali, [čto u nix malo šansov na
we.NOM discussed that at them.GEN little chances.GEN on
pobedu].
victory.ACC
Intended: 'We discussed the fact that they have little chance to win.'

b. My obsuždali tot fakt, [čto u nix malo
we.NOM discussed that fact.ACC that at them.GEN little
šansov na pobedu].
chances.GEN on victory.ACC
'We discussed the fact that they have little chance to win.'

The existence of *capture*-class verbs has been cited as a potential argument against a (null) DP-layer account of clausal complements (Moulton 2013, Takahashi 2010). The reasoning is that if sentential arguments in the unacceptable examples (9a)–(10a) are DPs, then one can no longer account for their unacceptability by simply assuming that these verbs c-select for DP but not for CP (as under a DP-layer account one has DP complements in both cases). There is reason to believe, however, that this simple selectional account cannot be right. As we can see in (11a)–(11b), propositional arguments of these verbs cannot be realized even as *to*,*čto*-clauses, which are undoubtedly DPs. Yet under the selectional account, the examples in (11a)–(11b) would be incorrectly predicted to be fine.

(11) a. * Èto pravilo otražaet to, [čto èti slova ne
this rule.NOM reflects it.ACC that these words.NOM not
sklonjajutsja].
decline
Intended: 'This rule reflects the fact that these words do not decline.'

b. * My obsuždali to, [čto u nix malo šansov
we.NOM discussed it.ACC that at them.GEN little chances.GEN
na pobedu].
on victory.ACC
Intended: 'We discussed the fact that they have little chance to win.'

Given that the pattern displayed by *otražat'* 'reflect' and *obsuždat'* 'discuss' cannot be accounted for by selection for DP alone, the argument against the

DP-layer account of *čto*-clauses disappears. Indeed, if the *čto*-clause complements in (9a)–(10a) are disallowed for a reason other than the verb needing a DP complement, the assumption that these complements are DPs (under the DP-layer account) is no longer problematic. The simplest assumption would be that these verbs s-select for a lexical property shared by nouns like 'fact', 'possibility', etc., which is not satisfied by complement clauses. But whatever property of the *capture* class can ultimately be shown to account for the unacceptability of (9a)–(10a) and (11a)–(11b), crucially, it does not present an argument against a DP-layer account of *čto*-clauses.

2.1.2 *Čto*-clauses in "Caseless" positions

Turning to the second type of positions, where DP cannot but *čto*-clauses can appear, it is the position of the complement of adjectival predicates and verbs that do not assign Accusative, henceforth –Acc verbs.[4] "Caseless" positions are illustrated by the verbs *nadejat'sja* 'hope' and *nastaivat'* 'insist' and the adjectival predicate *uveren* 'sure'. These predicates take PP complements and disallow accusative DPs, as shown in (12a)–(12c), but are fine with *čto*-clauses, as shown in (13a)–(13c).

(12) a. Maša nadeetsja { na èto / * èto}.
Masha.NOM hopes on this.ACC this.ACC
'Masha hopes {for this/*this}.'

b. Vanja nastaivaet { na èto**m** / * èto}.
Vanya.NOM insists on this.LOC this.ACC
'Vanya insists {on this/*this}.'

c. Anja uverena { v èto**m** / * èto}.
Anja.NOM sure in this.LOC this.ACC
'Anja is sure {of this/*this}'.

(13) a. Maša nadeetsja, čto u nee budet mnogo
Masha.NOM hopes that at her.GEN will be a lot
svobodnogo vremeni.
free time.GEN
'Masha hopes that she will have a lot of free time.'

b. Vanja nastaivaet, čto žit' v Moskve deševo.
Vanya.NOM insists that live in Moscow.LOC cheap
'Vanya insists that it is cheap to live in Moscow.'

c. Anja uverena, čto u nee vse budet xorošo.
Anja.NOM sure that at her all.NOM will be fine
'Anja is sure that she will be fine.'

[4] I will discuss sentential complements of nouns in Chapter 4.

If oblique complements are analyzed as introduced by P_{obl} (see (23) from the Introduction), the position of the complement of V associated with predicates that take oblique objects will also instantiate a "Caseless" position where sentential arguments can appear. This is illustrated by the verbs *udivit'sja* 'be surprised' and *xvastat'sja* 'boast' and the adjectival predicate *nedovolen* 'displeased'. These predicates take oblique complements and disallow Accusative DPs, as shown in (14a)–(14c), yet they are fine with *čto*-clauses, as shown in (15a)–(15c).[5]

(14) a. Vanja udivilsja { P_{dat} ètomu / * èto}.
Vanya.NOM was surprised this.DAT this.ACC
'Vanya was surprised {at this/*this}.'

b. Sereža xvastaetsja { P_{ins} ètim / * èto}.
Serezha.NOM boasts this.INS this.ACC
'Serezha boasts {about this/*this}'.

c. Maša nedovol'na { P_{ins} ètim / * èto}.
Masha.NOM displeased this.INS this.ACC
'Masha is displeased {with this/*this}.'

(15) a. Vanja udivilsja, čto gollandcy pobedili.
Vanya.NOM was surprised that Dutch.NOM won
'Vanya was surprised that the Dutch won.'

b. Sereža xvastaetsja, čto on smog rešit' zadaču.
Serezha.NOM boasts that he.NOM could to solve problem.ACC
'Serezha boasts that he was able to solve the problem.'

c. Maša nedovol'na, čto ej nado stol'ko platit'.
Masha.NOM displeased that her.DAT necessary so much to pay
'Masha is displeased that she has to pay so much.'

As for *to,čto*-clauses, they are disallowed in "Caseless" positions. This is shown for predicates that take lexical PP complements in (16a)–(16c). In the absence of a lexical P, a *to,čto*-clause (marked with accusative Case) cannot appear.

[5] I am assuming that *čto*-clauses in examples like (15a)–(15c) cannot be analyzed as introduced by P_{obl}, as in the structures in (ia)–(ic). In section 2.2.2 I show why these structures are blocked. This is also reflected in Table 2.1.

(i) a. * Vanja udivilsja, P_{obl} [čto gollandcy pobedili].
b. * Sereža xvastaetsja, P_{obl} [čto smog rešit' zadaču].
c. * Maša nedovol'na, P_{obl} [čto segodnja vyxodnoj].

(16) a. * Maša nadeetsja to, čto u nee budet mnogo
Masha.NOM hopes it.ACC that at her.GEN will be a lot
svobodnogo vremeni.
free time.GEN
Intended: 'Masha hopes that she will have a lot of free time.'

b. * Vanja nastaivaet to, čto žit' v Moskve
Vanya.NOM insists it.ACC that to live in Moscow.LOC
deševo.
cheap
Intended: 'Vanya insists that it is cheap to live in Moscow.'

c. * Anja uverena to, čto u nee vse budet xorošo.
Anja.NOM sure it.ACC that at her all.NOM will be fine
Intended: 'Anja is sure that she will be fine.'

As for predicates that take oblique (i.e. P_{obl}) complements, these allow *to*,*čto*-clauses only in the oblique case governed by the predicate (i.e. the variety of P_{obl} selected by the predicate) but not in the accusative case. This is shown in (17a)–(17c).

(17) a. Vanja udivilsja { tomu / * to}, čto gollandcy
Vanya.NOM was surprised it.DAT it.ACC that Dutch.NOM
pobedili.
won
'Vanya was surprised at the fact that the Dutch won.'

b. Sereža xvastaetsja { tem / * to}, čto on smog
Serezha.NOM boasts it.INS it.ACC that he.NOM could
rešit' zadaču.
to solve problem.ACC
'Serezha boasts about the fact that he was able to solve the problem.'

c. Maša nedovol'na { tem / * to}, čto ej nado
Masha.NOM displeased it.INS it.ACC that her.DAT necessary
stol'ko platit'.
so much to pay
'Masha is displeased with the fact that she has to pay so much.'

2.1.3 Summary

The facts about the distributional properties of *čto*-clauses discussed so far are summarized in Table 2.1.[6]

[6] I will provide a separate discussion of the appearance of *čto*-clauses in the topic position in section 2.4.1 and as complements of nouns in Chapter 4.

Table 2.1: The distribution of *čto*-clauses and *to,čto*-clauses

position	*čto*-clause	*to,čto*-clause
Case positions		
preverbal nominative	✗	✓
accusative object	✓	✓/?
object of lexical P/P_{obl}	✗	✓
postverbal nominative	✓	✓
"Caseless" positions		
complement of –Acc verbs	✓	✗
complement of adjectives	✓	✗

The question we have to answer now is why *čto*-clauses have the distribution they do. First of all, there are two principled questions in (18a)–(18b), which have to do with strong acceptability contrasts. There is also an additional question in (18c) about a milder contrast.

(18) a. How can *čto*-clauses appear with adjectives and –Acc verbs while *to,čto*-clauses and ordinary DPs (marked with accusative Case) cannot?

b. Why can't *čto*-clauses appear as (i) objects of lexical P/P_{obl} and as (ii) external nominative subjects while *to,čto*-clauses and ordinary DPs can?

c. Why are *to,čto*-clauses degraded in the accusative position while *čto*-clauses are not?

We already saw the answer to question (18a) a number of times. It is based on the general proposal about case licensing of sentential arguments, repeated in (19).

(19) *The Case requirement of* čto*-clauses*
A *čto*-clause complement has to be licensed by Case. This can be realized in one of the following two ways:
(a) the sentential complement is assigned structural Case;
(b) the sentential complement is licensed by (a possibly silent) P.

By (19), *čto*-clauses in –Acc positions will be licensed by null P (P_{CP}).[7] Thus the examples in (13a)–(13c) and (15a)–(15c) will have the structure as in (20a)–(20c) and (21a)–(21c).

[7] I discuss the meaning of P_{CP} in Chapter 3.

(20) a. Maša nadeetsja, P_{CP} [čto u nee budet mnogo
Masha.NOM hopes that at her.GEN will be a lot
svobodnogo vremeni].
free time.GEN

b. Vanja nastaivaet, P_{CP} [čto žit' v Moskve deševo].
Vanya.NOM insists that to live in Moscow.LOC cheap

c. Anja uverena, P_{CP} [čto u nee vse budet xorošo].
Anja.NOM sure that at her all.NOM will be fine

(21) a. Vanja udivilsja, P_{CP} [čto gollandcy pobedili].
Vanya.NOM was surprised that Dutch.NOM won

b. Sereža xvastaetsja, P_{CP} [čto on smog rešit'
Serezha.NOM boasts that he.NOM could to solve
zadaču].
problem.ACC

c. Maša nedovol'na, P_{CP} [čto ej nado stol'ko
Masha.NOM displeased that her.DAT necessary so much
platit'].
to pay

This, of course, does not fully answer question (18a) as we have to understand why P_{CP} cannot "save" the corresponding structure with a *to*,*čto*-clause or an ordinary DPs. In other words, what rules out examples like (22a)–(22c) and (23a)–(23c). I will address this question in section 2.2.3 after addressing questions (18b)–(18c) in section 2.2.2.

(22) a. * Maša nadeetsja P_{CP} { èto / to, čto u nee
Masha.NOM hopes this.ACC it.ACC that at her.GEN
budet mnogo svobodnogo vremeni}.
will be a lot free time.GEN

b. * Vanja nastaivaet P_{CP} { èto / to, čto žit' v
Vanya.NOM insists this.ACC it.ACC that live in
Moskve deševo}.
Moscow.LOC cheap

c. * Anja uverena P_{CP} { èto / to, čto u nee vse
Anja.NOM sure this.ACC it.ACC that at her all.NOM
budet xorošo}.
will be fine

(23) a. * Vanja udivilsja P_{CP} { èto / to, čto
Vanya.NOM was surprised this.ACC it.ACC that
gollandcy pobedili}.
Dutch.NOM won

b. * Sereža xvastaetsja P_{CP} { èto / to, čto on
Serezha.NOM boasts this.ACC it.ACC that he.NOM
smog rešit' zadaču}.
could to solve problem.ACC

c. * Maša nedovol'na P_{CP} { èto / to, čto ej
Masha.NOM displeased this.ACC it.ACC that her.DAT
nado stol'ko platit'}.
necessary so much to pay

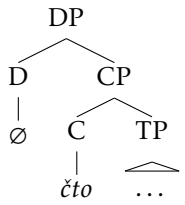
The answers to questions (18a)–(18c) will be based on my account about the morphological realization of Case. But before presenting this account, I will lay out my assumption about the structure of *to,čto*-clauses.

2.2 A Case realization account

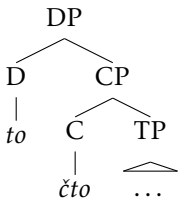
2.2.1 *To* as the overt realization of the DP layer

I propose that the structure of *to,čto*-clauses is minimally different from the structure of *čto*-clauses, as shown in (24). Concretely, I take the correlative *to* to be the overt realization of the DP-layer projected on top of a *čto*-clause, as shown in (25).[8]

(24)



(25)

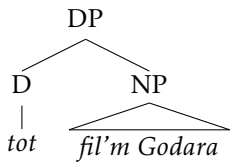


The conceptual advantage of the analysis in (25) is that it provides a uniform structure for various uses of the element *to*. Firstly, it assimilates the structural position of the correlative *to* to that of the (distal) demonstrative *to* 'that' in demonstrative phrases such as (26) as they are analyzed by Bailyn (2011) (see also Pereltsvaig 2007).[9]

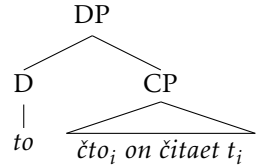
[8] See Takahashi 2010 for a proposal about the compositional semantic interpretation of such structures.

[9] Bailyn lists a number of convincing arguments for the determiner status of demonstratives and against their adjectival analysis, see Bošković 2005. The arguments include ordering restrictions and the ban on movement, on which see Chapter 4.

(26) a. tot fil'm Godara
that film.NOM Godar.GEN
'that film by Godar'

b.


(27) a. to, čto on čitaet
it.NOM that he.NOM reads
'what he reads'

b.


The proposed analysis also draws a structural parallel between *to*,*čto*-clauses and the so-called light-headed ("free") relatives illustrated in (27), which have been argued by Citko's (2004) to have the [$_{DP}$ D^0 CP] structure on the basis of Polish data. Under this analysis, the two kinds of *to* could be treated as a single element except that in light-headed relatives the CP complement will involve wh-movement.

The analysis of *to*,*čto*-clauses given in (25) has two important properties. Firstly, *to* is analyzed as a clausal determiner rather than a referential pronoun. Secondly, the *čto*-clause serves as a complement rather than an adjunct to the correlative *to*. I will now discuss these properties in turn.

Despite the obvious relation to the corresponding proximal demonstrative *èto*, which is used to refer back to abstract entities including sentential arguments (see below), the correlative *to* cannot be analyzed as a referential pronoun.

Firstly, *to* as such has a very limited capacity to refer back to a fact or a proposition introduced in the preceding discourse. It is only possible in the position preceding the verb and only in the scope of a focus particle, as in (28a). Without a focus particle, as in (28b) it has a strong archaic flavor. Cf. *éto* in (28c).

(28) a. Maša (tol'ko) na tom i nastaivaet.
Masha.NOM only on it.LOC PRT insists
'Masha insists precisely (only) on this.'

b. Maša (?? na tom) nastaivaet (* na tom).
Masha.NOM on it.LOC insists on it.LOC
Intended: 'Masha insists on this.'

c. Maša (na ètom) nastaivaet (na ètom).
Masha.NOM on this.LOC insists on this.LOC
'Masha insists on this.'

Secondly, *to* is not associated with any clear semantic distinctions, as opposed to the pleonastic *it* in construction with a *that*-clause in English, which is argued to be referential (see Rothstein 1995). Thus, for example, Rothstein argues that (29a) presupposes that the situation described by the complement clause has actually occurred; cf. (29b), which does not have this presupposition.

(29) a. John and Mary announced it that they got married.
b. John and Mary announced that they got married.
(Rothstein 1995:519)

In contrast, examples with the correlative *to* do not have such factivity presuppositions, which is shown by the felicity of the sentence in (30); the sentence would be infelicitous if the complement clause (which is false), were presupposed.

(30) Vanja nastaivaet na tom, čto Stambul – stolica
Vanya.NOM insists on it.LOC that Istanbul.NOM capital.NOM
Turcii.
Turkey.GEN
'Vanya insists that Istanbul is the capital of Turkey.'

Further, it has been noted that, when appearing with a factive verb, as in (31a), the pleonastic *it* presupposes that the complement clause is familiar to the hearer (cf. (31b), which does not have this presupposition); the observation is from Hegarty 1992 as cited in Haegeman and Ürögdi 2010.[10]

(31) I was talking to our agents in Russia yesterday,
a. ...and they noticed it that Max went to Moscow last week.
b. ...and they noticed that Max went to Moscow last week.

In contrast, the correlative *to* does not require the complement to be contextually given or familiar, as shown by the felicity of a *to*,*čto*-clause in (32c), where the preceding context in (32a) strongly suggests that the speaker takes the information in the complement as new to the hearer; cf. the corresponding *čto*-clause in (32c).

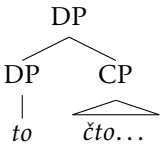
(32) a. *Context*: A: Kak prošel doklad? – B: Xorošo, no...
how passed talk.NOM good but...
'How was your talk?' – 'Good, but...'
b. Ja byl očën' udivlen tem, čto nikto ne zadaval
I.NOM was very surprised it.INS that nobody.NOM not asked
voprosov.
questions.GEN
'I was surprised by the fact that nobody asked any questions.'
c. Ja byl očën' udivlen, čto nikto ne zadaval
I.NOM was very surprised that nobody.NOM not asked
voprosov.
questions.GEN
'I was surprised by the fact that nobody asked any questions.'

[10] Note that Haegeman and Ürögdi (2010) take constructions with the pleonastic *it* such as (29a) and (31a) to introduce a weaker semantic condition, they call referentiality, which is a precondition for both factivity and givenness.

Thus we can conclude that the correlative *to* does not have any detectable effect on sentence meaning, as noted by Comrie (1971); see also Stepanov 2001.

Given that the correlative *to* is not a referential pronoun, there is still the question about its structural relation to the *čto*-clauses. One alternative to the [D^0 CP] analysis of *to*,*čto*-clauses in (25) is the adjunction analysis proposed by Stepanov (2001) and illustrated in (33).

(33)



There are reasons, however, to favor the [D^0 CP] structure over the structure in (33). Firstly, the near-obligatoriness of the co-occurrence of *to* with a CP, as I discussed in (28), can be readily explained if there is head-complement relation between the two, but it does not follow from the adjunction analysis.

Secondly, the [D^0 CP] analysis also allows to account for a selectional relation between the verb and the complementizer across the correlative *to*, as illustrated in (34) and (35). It is not clear how one could account for this if the complement clause is adjoined. In contrast mechanisms have been proposed for non-local selection between heads, see Svenonius 1994.[11]

(34) a. Maša stremitsja (k tomu), čtoby ee vse
Masha.NOM strives to it.DAT that.SUBJ her.ACC all.NOM
ljubili.
liked
'Masha strives for everyone to like her.'

[11] One potential argument for the adjunction analysis is the unacceptability of wh-extraction out of *to*,*čto*-clauses, illustrated in (i) from Stepanov 2001:146; judgment mine (the original judgment is "?*"). Note, however, that *to*,*čto*-clauses are already quite degraded with *skazat'* 'say', as shown in (ia); see also (8a). Also note that *čto*-clauses are independently hard to extract, as shown in (ic) (see, e.g. Khomitsevich 2008). As a result, the unacceptability of (ia) can be explained independently of the structure of *to*,*čto*-clauses.

(i) a. * Kogo Petr skazal to, chto Ivan ljubit?
whom.ACC Peter.NOM said it.ACC that Ivan.NOM loves
Intended: 'Who did Peter say that Ivan loves?'

b. ?* Petr skazal to, chto Ivan ljubit Mašu.
Peter.NOM said it.ACC that Ivan.NOM loves Masha.ACC
Intended: 'Peter said that Ivan loves Masha.'

c. ?? Kogo Petr skazal, chto Ivan ljubit?
whom.ACC Peter.NOM said that Ivan.NOM loves
Intended: 'Who did Peter say that Ivan loves?'

b. * Maša stremitsja (k tomu), čto ee vse ljubjat.
Masha.NOM strives to it.DAT that her.ACC all.NOM like
Intended: 'Masha strives for everyone to like her.'

(35) a. Vanja žaleet (o tom), čto Maša ne priedet.
Vanya.NOM regrets about it.LOC that Masha.NOM not will come
'Vanya regrets that Masha will not come.'

b. * Vanja žaleet (o tom), čtoby Maša ne
Vanya.NOM regrets about it.LOC that.SUBJ Masha.NOM not
priexala.
came
Intended: 'Vanya regrets that Masha will not come.'

To conclude, there are reasons to analyze *to,čto*-clauses as having the [D^0 CP] structure so that they have the same structure as *čto*-clauses except that in the latter case the D^0 is not overtly realized.

2.2.2 The obligatory vs. optional Case realization

Now we are in a position to come back to the questions in (18). I will skip the question (18a) until the next section, where I explicitly discuss the case properties of P_{CP}. Let's first turn to question (18b), namely, why *čto*-clauses can't appear as (i) objects of lexical P/P_{obl} and as (ii) preverbal nominative subjects while *to,čto*-clauses (and ordinary DPs) can.

I will start with the question (18bi), namely, why sentences like (36b)–(37b) are blocked while the corresponding sentences with *to,čto*-clauses in (36a)–(37a) are fine.[12]

(36) a. Maša nadeetsja na to, [čto u nee budet mnogo
Masha.NOM hopes on it.ACC that at her.GEN will be a lot
svobodnogo vremeni].
free time.GEN
'Masha hopes that she will have a lot of free time.'

b. * Maša nadeetsja na [čto u nee budet mnogo
Masha.NOM hopes on that at her.GEN will be a lot
svobodnogo vremeni].
free time.GEN

(37) a. Sereža xvastaetsja P_{ins} tem, [čto on smog rešit'
Serezha.NOM boasts it.INS that he.NOM could to solve
zadaču].
problem.ACC
'Serezha boasts about the fact that he was able to solve the problem.'

[12] See footnote 5 for the sentence in (37b).

b. * Sereža xvastaetsja P_{ins} [čto on smog rešit' zadaču].
Serezha.NOM boasts that he.NOM could to solve problem.ACC

Recall from section 1.3.1 from the Introduction that the case morphology of DPs is determined by the formal Case features assigned to that DP by a Case assigner and, crucially, the rules of morphological realization of those features. These rules of realization sometimes obscure the 'canonical' value of a particular Case feature. For example, in languages like Russian some nouns like *metro* and *kino* are nondeclinable and thus fail to distinguish case values. Null elements like PRO have been argued to have Case features (see Sigurðsson 2003), yet they cannot be realized. Given these facts, it is clear that the Case realization can depend on the properties of the element that a Case value is assigned to.

Extending this logic, I would like to argue that Case realization can also depend on the properties of Case features themselves. In particular, I propose that inherent Case has to be realized, as stated in (38).

(38) Inherent Case has to be realized.

The principle in (38) is not entirely new and can be traced back to the Recoverability principle of Pesetsky 1998. Assuming that inherent Case is associated with semantic content, it will have to be realized (in order to satisfy Recoverability).[13] This is certainly true for inherent Case assigned by P_{obl}, which, as I suggested above, is contentful (see section 1.3.2 from the Introduction). If this Case were not realized, it would lack any realization whatsoever and would thus violate Recoverability.[14]

[13] As pointed out by Jan Odijk (p.c.), the notion of 'realization' used in (38) entails the realization, or presence, of the relevant Case feature in the syntax, in particular at LF and at the interface to the PF component. Crucially, it does not require phonological realization, as the said feature can be mapped to a null phonetic string (as is presumably the case with Russian nondeclinable nouns) or to a string that is deleted by a phonological process. In a similar vein, the principle in (38) also accommodates Null Case (see section 2.2.3), which is phonologically 'realized' as silence.

[14] The same argument can be extended to overt Ps in view of the fact that one and the same overt P in Russian can assign multiple morphological cases associated with different semantic content. This can be illustrated by the well-known locative vs. directional distinction marked by the locative vs. accusative case, as shown in (ia)–(ib). The simplest assumption is that it is morphological cases (in conjunction with P) that carry the relevant semantic content. Consequently, the cases assigned by P have to be realized in order to conform to Recoverability. See, though, Pesetsky 2013 for a different account.

(i) a. Vanja zalez na kryšu.
Vanya.NOM climbed on roof.ACC
'Vanya climbed the roof.'

b. Vanja sidel na kryše.
Vanya.NOM sat on roof.LOC
'Vanya was sitting on the roof'

Given the principle in (38), we expect that the Ps in (36b)–(37b) will assign Case that has to be realized. Now suppose, as I already suggested in section 2.2.1, that the correlative *to* is the realization of the DP-layer in the context of realized Case, as explicitly formulated in (39).

(39) D^0 /realized Case → *to*

From this it immediately follows that the underlying structures for the unacceptable (36b)–(37b) given in (40a)–(40b) will never be derived. In contrast, *to*,*čto*-clauses in (36a)–(37a) will be fine in these constructions because the correlative *to* is able to overtly realize case assigned by P.[15]

(40) a. * Maša nadeetsja na [$_{DP}$ $\varnothing_D$ čto u nee budet mnogo svobodnogo vremeni].
b. * Sereža xvastaetsja P_{ins} [$_{DP}$ $\varnothing_D$ čto smog rešit' zadaču].

Let's turn to the question (18bii), namely why preverbal sentential subjects cannot be realized as *čto*-clauses, as shown in (41a)–(42a), repeated from (3a)–(3b), and instead have to show up as *to*,*čto*-clauses, as in (82b)–(42b), repeated from (4a)–(4b).[16]

(41) a. * Čto on èto skazal, dokazyvaet ego nevinovnost'.
that he.NOM this.ACC said proves his innocence.ACC
Intended: '(The fact) that he said this proves his innocence.'
b. To, čto on èto skazal, dokazyvaet ego nevinovnost'.
it.NOM that he.NOM this.ACC said proves his innocence.ACC
'The fact that he said this proves his innocence.'

(42) a. * Čto on priexal, značit, čto emu ne vse ravno.
that he.NOM came means that him.DAT not all the same
Intended: '(The fact) that he came means that he cares.'
b. To, čto on priexal, značit, čto emu ne vse ravno.
it.NOM that he.NOM came means that him.DAT not all the same
'The fact that he came means that he cares.'

[15] The fact that nondeclinable nouns like *kino* and *metro* can appear in this position, as shown in (i), suggests that they can realize Case even though it happens to be the morphologically identical for different case values.

(i) Vanja ezdit na metro.
Vanya.NOM rides on metro
'Vanya rides on the subway.'

[16] Interestingly, the corresponding English examples are fine, which I discuss in section 2.4.2.

Firstly, I will follow Slioussar (2011) in assuming that that external nominative arguments in Russian raise to the SpecTP position, where they satisfy the EPP and get assigned Case, whereas internal nominative arguments are assigned Case *in situ* (Slioussar 2011).[17] The logic of the account suggests that the unacceptability of the examples in (41a)–(42a) has to do with the fact that their DP-layer remains unrealized. Now suppose that the EPP property can only be satisfied by an element with an overt head, as proposed by Landau (2007). Then we immediately predict that *čto*-clauses, which are headed by a null D, will not be able to check the EPP features, as opposed to *to*,*čto*-clauses, introduced by the overt D. This will derive the fact that only *to*,*čto*-clauses can appear in the preverbal subject position, as shown in (82b)–(42b).

The proposed account correctly predicts that both the postverbal (internal) nominative subjects and direct accusative objects will not require realized Case and the overt DP layer. Indeed, neither is inherently-Case-marked or has to check the EPP feature, hence none of the motivations given above for the obligatory Case realization will apply to them. As witnessed by (43a)–(43b), repeated from above, both positions allow realization of *čto*-clauses.

(43) a. Menja udivljaet, čto on priexal.
me.ACC surprises that he.NOM came
'It surprises me that he came.'

b. Maša skazala, čto ona ustala.
Masha.NOM said that she.NOM tired
'Masha said that she is tired.'

Now we can turn to the question (18c), namely, why *to*,*čto*-clauses are degraded in the accusative position, as shown in (44), repeated from above; cf. a *čto*-clause in (43b).

(44) ?* Maša skazala to, čto ona ustala.
Masha.NOM said it.ACC that she.NOM tired
Intended: 'Masha said that she is tired.'

Now to account for (44) I would like to propose a general economy condition on Case realization. This condition is given in (45).

(45) Case is preferred to remain unrealized (whenever possible).

[17] This assumption presupposes that sentences like (43a) do not contain null expletives (because then they would need to be assigned Nominative). An alternative is that the clauses in such examples are assigned Case by P_{CP}, see section 3.1.5. The latter assumption is probably required for the English extraposition construction in (i). The availability of PP in this position would be justified if internal DP arguments of passive/unaccusative verbs are assigned Partitive Case (see Belletti 1988), which is inherent and is thus assigned by P (see the principle in (23) from the Introduction).

(i) It surprised Mary that John was late.

The account will run as follows. By (39) the example in (44) will contain an instance of a realized (structural Accusative) Case. Under the minimal assumptions, structural Accusative does not have to be realized, therefore its realization in (44) will violate the economy condition in (45).[18]

The condition in (45) may appear to incorrectly rule out examples like (46a), with *to*,*čto*-clauses in the postverbal subject position.

(46) a. Menja udivljaet to, čto on priexal.
me.ACC surprises it.NOM that he.NOM came
'It surprises me that he came.'

b. To, čto on priexal, menja ne udivljaet.
it.NOM that he.NOM came me.ACC not surprises
'That he came does not surprise me.'

Note, however, that the sentential argument of *udivljat'* 'surprise' can also appear preverbally, showing up as a *to*,*čto*-clause, as in (46b). I will analyze these examples as the result of movement of the sentential argument to SpecTP.[19] As a result, the problematic example in (46a) can be viewed as derived from (46b) by extraposition. Consequently, it will not involve Nominative assigned *in situ* and will thus not violate the principle in (45).

2.2.3 P_{CP} assigns unrealized Case

We can turn now to the question (18a), namely, why *to*,*čto*-clauses and ordinary DPs are not possible as complements of adjectives and –Acc verbs. In other words, how given the availability of P_{CP}, the structures in (47a)–(47c) are ruled out.

(47) a. * Maša nadeetsja P_{CP} { èto / to, čto u nee
Masha.NOM hopes this.ACC it.ACC that at her.GEN
budet mnogo svobodnogo vremeni}.
will be a lot free time.GEN

[18] As we saw in (8a)–(8d), the construction is degraded to varying degrees. I leave the account of this variability for future research. The principle in (45) also apparently rules out acceptable examples with focused correlatives discussed in footnote 3. In order to accommodate these examples, I will tentatively assume that focus on the clausal complement forces Case realization on the complement. Now that Case realization in these examples is not optional, they are immune to the principle in (45). This account certainly requires further elaboration.

[19] Given Landau (2007) account of EPP, this analysis will correctly predict why *čto*-clauses are bad in this context, as shown in (i). The alternative structure for (i) derived by movement of the internal Nominative subject to the topic position will be ruled out by the restrictions on topicalization of elements with unrealized Case; see section 2.4.1.

(i) *? Čto on priexal, menja ne udivljaet.
that he.NOM came me.ACC not surprises
'That he came does not surprise me.'

b. * Anja uverena P_{CP} { èto / to, čto u nee vse
Anja.NOM sure this.ACC it.ACC that at her all.NOM
budet xorošo}.
will be fine

c. * Sereža xvastaetsja P_{CP} { èto / to, čto on
Serezha.NOM boasts this.ACC it.ACC that he.NOM
smog rešit' zadaču}.
could to solve problem.ACC

Given the logic of the proposal, the answer should lie in the properties of the Case assigned by P_{CP}. I have just argued that some Cases require overt realization whereas some other cases allow optional realization. Extending this typology, we may expect to find cases that cannot be realized.

I would like to propose that the Case assigned by P_{CP} is precisely the kind of case that cannot be realized. This is formulated in (48).

(48) P_{CP} assigns unrealized Case (Null Case).

The idea that the some Cases cannot be realized is not new. Chomsky and Lasnik (1993) proposed that PRO is assigned Null Case, which cannot be realized on overt categories. The same idea has been employed by Pesetsky (1993) to account for selectional properties of verbs like *complain*, which do not take DP complements.

I will view the unrealized Case assigned by P_{CP} as a particular Case feature on D just like other oblique Case features (I will refer to it as Null Case). The difference between Null Case and other oblique Cases is that the element carrying a Null Case feature has to be silent. Applied to *čto*-clauses, this will require their DP-layer to be unrealized, which I formulate in (49).

(49) D^0 /unrealized Case $\rightarrow \varnothing$

Under the proposal in (48), the examples in (47a)–(47c) will be expected to be blocked given that both ordinary DP and *to*,*čto*-clauses carry realized Case (see (39)).

The realization properties of various Cases can now be summarized as in Table 2.2.

Given these properties, the distribution of *čto*- and *to*,*čto*-clauses will follow from (a) the assumption that the realization of the DP-layer projected on top of *čto*-clauses as the correlative *to* reflects the presence of realized vs. unrealized Case, as summarized in (50), and (b) the realization properties of particular Cases as given in Table 2.2.

(50) a. D^0 /unrealized Case $\rightarrow \varnothing$
b. D^0 /realized Case $\rightarrow$ *to*

Table 2.2: The properties of Case realization

Case	assigner	realization
Oblique	P_{obl}	obligatorily realized
	overt P	
Accusative	v	optionally realized
Nominative	T	
Null Case	P_{CP}	unrealized

2.3 An argument from null complement anaphora

The evidence for the principles of Case realization from the previous section comes from the distribution of null complement anaphors (NCA), see Grimshaw 1979, Moulton 2013.

I will first show that NCA have a very similar distribution to *čto*-clauses. Just like *čto*-clauses, NCA can appear as complements of both Acc-assigning and –Acc predicates. This is illustrated with the Acc-assigning predicates *skazat'* 'say', *podtveržsat'* 'confirm' and *dokazat'* 'prove' in (51b)–(52b), cf. the corresponding examples with *čto*-clauses (51c)–(52c). The anaphors are designated as pro_{NCA}.

(51) a. *Context*: Esli ty polučil soobščenie, ...
if you.NOM got message.ACC
'If you got the message, ...'

b. Skaži/podtverdi pro_{NCA}.
say/confirm
'Say so/confirm.'

c. Skaži/podtverdi, čto ty polučil soobščenie.
say/confirm that you.NOM got message.ACC
'Say/confirm that you got the message.'

(52) a. *Context*: Ty menja ljubiš'?
you.NOM me.ACC love
'Do you love me?'

b. Dokaži pro_{NCA}.
prove
'Prove.'

c. Dokaži, čto ty menja ljubiš'.
prove that you.NOM me.ACC love
'Prove that you love me.'

The –Acc predicates *nastaivat'* 'insist', *nadejat'sja* 'hope' and *udivit'sja* 'be surprised' are illustrated in (53b)–(55b); cf. the corresponding examples with *čto*-clauses in (53c)–(55c).

(53) a. *Context*: Maša ne verit, čto žit' v Moskve
Masha.NOM not believes that to live in Moscow.LOC
deševo, no...
cheap but
'Masha does not believe that it is cheap to live in Moscow, but...'

b. Vanja prodolžaet nastaivat' pro_{NCA}.
Vanya.NOM continues to insist
'Vanya keeps insisting.'

c. Ivan prodolžaet nastaivat', čto žit' v Moskve
Vanya.NOM continues to insist that to live in Moscow.LOC
deševo.
cheap
'Vanya keeps insisting that it is cheap to live in Moscow.'

(54) a. *Context*: Oni skazali Maše, čto Vanja skoro
they.NOM said Masha.DAT that Vanya.NOM soon
priedet, no...
will come, but
'They said to Masha that Vanya will come soon, but...'

b. Ona uže ne nadeetsja pro_{NCA}.
she.NOM already not hopes
'She no longer hopes.'

c. Ona uže ne nadeetsja, čto Vanja skoro priedet.
she.NOM already not hopes that Vanya.NOM soon will come
'She no longer hopes that Vanya will come soon.'

(55) a. *Context*: Včera gollandcy opjat' pobedili, no...
yesterday Dutch.NOM again won, but
'Yesterday the Dutch won again, but...'

b. Vanja uže ne udivilsja pro_{NCA}.
Vanya.NOM already not was surprised
'Vanya was no longer surprised.'

c. Vanja uže ne udivilsja, čto včera
Vanya.NOM already not was surprised that yesterday
gollandcy opjat' pobedili.
Dutch.NOM again won
'Vanya was no longer surprised that yesterday the Dutch won again.'

The similarity also extends to subjects. Whereas just like *čto*-clauses pro_{NCA} are allowed as internal Nominative arguments, they are disallowed as external arguments. This is illustrated by the internal argument of the verb *udivljat'* 'surprise' in (56b); cf. (56c).[20] External arguments are illustrated with verbs *dokazyvat'* 'prove' and *značit'* 'mean' in (57b); cf. example with a *(to,)čto*-clause in (57c). Note that the overt pronominal *èto* is possible as the external subject.

(56) a. *Context*: On opozdal.
he.NOM was late but
'He was late.'

b. Menja ne udivljaet pro_{NCA}.
me.ACC not surprises
'I am not surprised.'

c. Menja ne udivljaet, čto on opozdal.
me.ACC not surprises He was late
'I am not surprised that he was late.'

(57) a. *Context*: On opozdal.
he.NOM was late
'He was late.'

b. { Èto / * pro_{NCA}} ne dokazyvaet/značit ničego.
this.NOM not proves/means nothing.ACC
'This does not prove anything.'

c. *(To,) čto on opozdal, ne dokazyvaet/značit
it.NOM that he.NOM was late not proves/means
ničego.
nothing.ACC
'(The fact) that he was late does not prove anything.'

Finally, pro_{NCA} cannot appear as the object of an overt P just like *čto*-clauses, as illustrated with PP complements of verbs *nastaivat'* 'insist' and *nadejat'sja* 'hope' in (58b)–(59b); cf. (58c)–(59c).

(58) a. *Context*: Maša ne verit, čto žit' v Moskve
Masha.NOM not believes that to live in Moscow.LOC
deševo, no...
cheap but
'Masha does not believe that it is cheap to live in Moscow, but...'

b. Vanja prodolžaet nastaivat' na { ètom / * pro_{NCA}}.
Vanya.NOM continues to insist on this.LOC
'Vanya keeps insisting on this.'

[20] Note that the subject argument of *udivljat'* 'surprise' has to be merged internally given that *čto*-clauses can never be (true) external arguments as we saw in section 2.1.1 (see (3a)).

c. Ivan prodolžaet nastaivat' na *(tom), čto žit' v
Vanya.NOM continues to insist on it.LOC that to live in
Moskve deševo.
Moscow.LOC cheap
'Vanya keeps insisting that it is cheap to live in Moscow.'

(59) a. *Context*: Oni skazali Maše, čto Vanja skoro
they.NOM said Masha.DAT that Vanya.NOM soon
priedet, no...
will come, but
'They said to Masha that Vanya will come soon, but...'

b. Ona uže ne nadeetsja na { èto / * pro_{NCA}}.
she.NOM already not hopes on this.ACC
'She no longer hopes for this.'

c. Ona uže ne nadeetsja na *(to), čto Vanja
she.NOM already not hopes on it.ACC that Vanya.NOM
skoro priedet.
soon will come
'She no longer hopes that Vanya will come soon.'

Moreover, whether pro_{NCA} is licensed in a complement position of a given verb depends on the agentivity of the subject just like in the case of *čto*-clauses. NCA are subject to the same agentivity restriction as *čto*-clauses, as discussed in section 1.1 in the Introduction (see Chapter 3 for details). I illustrate this by the non-agentive *grozit'* 'threaten' in (60b) and non-agentive *govorit'* 'say/indicate' in (62b), which do not allow *čto*-clauses, cf. (60c)–(62c). Note again that overt pronominals are allowed. The agentive controls are given in (61b)–(63b), cf. (61c)–(63c).

(60) a. *Context*: Vanju mogut uvolit', no...
Vanya.ACC can fire, but
'They can fire Vanya, but...'

b. Opozdanie emu javno ne grozit { ètim / * pro_{NCA}}.
being late.NOM him.DAT clearly not threatens this.INS
'Being late clearly does not threaten him with this.'

c. Opozdanie emu javno ne grozit *(tem), čto
being late.NOM him.DAT clearly not threatens it.INS that
ego uvoljat.
him.ACC fire
'Being late clearly does not threaten him with the fact that he will be fired.'

(61) a. *Context*: Vanju mogut uvolit'.
Vanya.ACC can fire
'They can fire Vanya.'

b. ? Načalnik emu uže davno grozit pro_{NCA}.
boss.NOM him.DAT already long ago threatens
'The boss has long been threatening him with this.

c. Načalnik emu uže davno grozit (tem), čto
boss.NOM him.DAT already long ago threatens (it.INS) that
ego uvoljat.
him.ACC fire
'The boss has long been threatening him with the fact that he will be fired.'

(62) a. *Context*: A: Ty znaeš', čto zdes' žili ljudi? – B:
you.NOM know that here lived people.NOM
Da,...
yes
'Do you know that people used to live here?' – 'Yes, ...'

b. Èti naxodki kak raz {ob ètom / * pro_{NCA}} i
these findings.NOM just about this.LOC PRT
govorjat.
say
'These findings indicate just this.'

c. Èti naxodki kak raz i govorjat *?(o tom), čto
these findings.NOM just PRT say about it.LOC that
zdes' žili ljudi.
here lived people.NOM
'These findings precisely indicate that people used to live here.'

(63) a. *Context*: Ty slyšal, čto zdes' žili ljudi?
you.NOM heard that here lived people.NOM
'Have you heard that people used to live here?'

b. Vot i učenye govorjat pro_{NCA}.
here PRT scientists.NOM say
'Now you have scientists talking about this.'

c. Vot i učenye govorjat (o tom), čto zdes' žili
here PRT scientists.NOM say about it.LOC that here lived
ljudi.
people.NOM
'Now you have scientists talking about the fact that people used to live here.'

Having established the similarity in the distribution of *čto*-clauses and NCA, we can now see how it supports the principles of Case realization argued for in the previous section. The argument runs as follows. Given the observed similarity, the minimal assumption is that NCA involves the same licensing mechanism as *čto*-clauses. As I independently argue in this dissertation, this mechanism is Case. Hence we can extend this mechanism to NCA. Note that extending the Case requirement for NCA comes for free if NCA are treated as DPs and are subject to the Case Filter just like other DPs.

Further, the Case licensing account of the distribution of NCA requires exactly those Case realization principles that I argued for in the previous section and which are given in Table 2.2. Since NCA are null they will require unrealized Case and will be licensed either by P_{CP} or by structural Accusative/Nominative (*in situ*). As a result we will expect them to be licensed in the position of the direct object as in (51b)–(52b), internal nominative argument, as in (56b) and in –Acc positions such as (53b)–(55b). Moreover, given that P_{CP} is only licensed by agentive subjects, as I discussed in section 3.2 from the Introduction and will argue for in Chapter 3, NCA are correctly predicted to be licensed only with agentive subjects in the case of the verbs *grozit'* 'threaten' and *govorit'* 'say', which allow both kinds of subjects. We saw this in (61b)–(63b); cf. the corresponding examples with non-agentive subjects in (60b)–(62b). Conversely, NCA will not be able to appear as objects of P, as shown in (58b)–(59b), and as external nominative subjects, as shown in (52b).

To summarize, the minimal assumption that NCA are DPs and are subject to the Case Filter explains their distribution under the principles of Case realization from Table 2.2 (and the assumption that in "Caseless" positions NCA are licensed by null P). This provides strong support for the principles of Case realization and – incidentally – the main proposal in general. Indeed, if both NCA and *čto*-clauses are licensed by Case, we have a natural account for the striking similarity of their distribution (especially the replication of the agentivity puzzle from the Introduction), which would otherwise be extremely surprising.

2.4 Restrictions on unrealized Case

2.4.1 *Čto*-clauses in the topic position

Having explained the basic distributional properties of *čto*-clauses, we can turn to their behavior under topicalization. I will show that this behavior can also be accounted for under the Case realization account proposed above combined with some independently motivated assumptions.

Following the distinction previously made in the discussion of the distribution of sentential arguments in section 2.1, we can distinguish between topicalization from Case and "Caseless" positions. It turns out that topicalization from both Case and "Caseless" positions is degraded, as I show below.

Starting from Case positions, in (64a)–(64d) I illustrate the degradedness of topicalizaton of *čto*-clauses from the object position with the verbs *skazat'* 'say', *znat'* 'know', *dokazat'* 'prove' and *portverdit'* 'confirm', cf. respective examples without topicalization in (6a)–(6d).[21] In (65a)–(65c) I illustrate the degradedness of topicalization from the postverbal subject position with the the verbs *udivljat'* 'surprise', *volnovat'* 'worry' and *nravits'sja* 'appeal', cf. respective examples without topicalization in (5a)–(5c).[22]

(64) a. ?? Čto on neprav, Maša skazala tol'ko mne.
that he.NOM wrong Masha.NOM said only me.DAT
Lit.: 'That he is wrong Masha said only to me.'

b. ?? Čto on ne pridet, Anja znala očen' xorošo.
that he.NOM not will come Anja.NOM knew very well
Intended: 'That he will not come Anya knew very well.'

c. ?? Čto èta zadača ne imeet rešenija, Vanja dokazal uže davno.
that this problem.NOM not has solution.GEN Vanya.NOM proved already long ago
Intended: 'That this problem does not have a solution Vanya proved already long ago.'

d. ?? Čto ee tam ne bylo, Sereža podtverdil srazu.
that her.GEN there not was Serezha confirmed immediately
Intended: 'That she was not there Serezha confirmed immediately.'

(65) a. ?* Čto on priexal, menja ne udivljaet.
that he.NOM came me.ACC not surprises
Intended: 'That he came does not surprise me.'

[21] The examples improve when preceded by the conjunction *a vot* 'but as to'. However, it's not clear whether these are real topics and not contrastive topics.

(i) a. A vot čto on ne pridet, Anja znala očen' xorošo.
and here that he.NOM not will come Anja.NOM knew very well
'And as for the fact that he will not come Anya knew it very well.'

b. A vot čto èta zadača ne imeet rešenija, Vanja dokazal uže davno.
and here that this problem.NOM not has solution.GEN Vanya.NOM proved already long ago
'And as for the fact that this problem does not have a solution Vanya proved it already long ago.'

[22] The alternative analysis of the *čto*-clause in (65a)–(65c) as the sentential subject (occupying the SpecTP position) is ruled out, assuming Landau's (2007) account of the EPP, see section 2.2.2.

b. ?* Čto on ne zdes', ee volnuet očen' malo.
that he.NOM not here her.ACC worries very little
Intended: 'That he is not here worries her very little.'

c. ?* Čto on priexal, Maše ne nravitsja.
that he.NOM came Masha.DAT not appeals
Intended: 'That he came Masha does not appeal to Masha.'

Topicalization of *to,čto*-clauses from the respective positions is fine, as shown in (66a)–(66d) for the accusative object position and in (67a)–(67c) for the postverbal subject position.

(66) a. To, čto on neprav, Maša skazala tol'ko mne.
it.NOM that he.NOM wrong Masha.NOM said only me.DAT
'That he is wrong Masha said only to me.'

b. To, čto on ne pridet, Anja znala očen' xorošo.
it.NOM that he.NOM not will come Anja.NOM knew very well
'That he will not come Anya knew very well.'

c. To, čto èta zadača ne imeet rešenija,
it.NOM that this problem.NOM not has solution.GEN
Vanja dokazal uže davno.
Vanya.NOM proved already long ago
'That this problem does not have a solution Vanya proved already long ago.'

d. To, čto ee tam ne bylo, Sereža podtverdil
it.NOM that her.GEN there not was Serezha confirmed
srazu.
immediately
'That she was not there Serezha confirmed immediately.'

(67) a. To, čto on priexal, menja ne udivljaet.
it.NOM that he.NOM came me.ACC not surprises
'That he came does not surprise me.'

b. To, čto on ne zdes' ee volnuet očen' malo.
it.NOM that he.NOM not here her.ACC worries very little
'That he is not here worries her very little.'

c. To, čto on priexal, Maše ne nravitsja.
it.NOM that he.NOM came Masha.DAT not appeals
'That he came does not appeal to Masha.'

Turning to "Caseless" positions, in (68a)–(68c) I provide examples with *čto*-clauses topicalized from the complement position of predicates selecting PP *nadejat'sja* 'hope', *nastaivat'* 'insist' and *uveren* 'convinced' ; cf. the respective examples without topicalization in (12a)–(12c). In (69a)–(69c) I show predicates

selecting oblique complements *udivit'sja* 'be surprised', *xvastat'sja* 'boast' and *nedovolen* 'displeased', cf. examples without topicalization in (15a)–(15c).

(68) a. ?* Čto u nee budet mnogo svobodnogo vremeni,
that at her.GEN will be a lot free time.GEN
Maša uže ne nadeetsja.
Masha.NOM already not hopes
Intended: 'That she will have a lot of free time Masha no longer hopes for.'

b. ?? Čto žit' v Moskve deševo, Vanja vrjad li budet
that to live in Moscow.LOC cheap Vanya.NOM hardly will
nastaivat'.
to insist
Intended: 'That it is cheap to live in Moscow Vanya will hardly insist on.'

c. * Čto u nee vse budet xorošo, Anja bolee čem
that at her.GEN all.NOM will be good Anja.NOM more than
uverena.
sure
Intended: 'That she will be fine Anya is more than sure of that.'

(69) a. ?* Čto gollandcy pobedili, Vanja ne udivilsja.
that Dutch.NOM won Vanya.NOM not was surprised
Intended: 'That the Dutch won Vanya was not surprised by that.'

b. ?* Čto u nego est' mašina, Sereža vrjad li budet xvastat'sja.
that at him.GEN is car.NOM Serezha hardly will to boast
Intended: 'That he has a car Serezha hardly will boast about that.'

c. * Čto ej nado stol'ko platit', Maša očen'
that her.DAT necessary so much to pay Masha.NOM very
nedovol'na.
displeased
Intended: 'That she has to pay so much Masha is very displeased about that.'

Again the preferred option is to topicalize a *to,čto*-clause. This is shown in (70a)–(70c) for verbs selecting lexical P, witness the pied-piping of that P. Verbs taking oblique complements are illustrated in (71a)–(71c).

(70) a. Na to, čto u nee budet mnogo svobodnogo vremeni,
on it.ACC that at her.GEN will be a lot free time.GEN

Maša uže ne nadeetsja.
Masha.NOM already not hopes
'That she will have a lot of free time Masha no longer hopes for.'

b. Na tom, čto žit' v Moskve deševo, Vanja vrjad li on it.LOC that to live in Moscow.LOC cheap Vanya.NOM hardly budet nastaivat'.
will to insist
'That it is cheap to live in Moscow Vanya will hardly insist on.'

c. V tom, čto u nee vse budet xorošo, Anja bolee in it.LOC that at her.GEN all.NOM will be good Anja.NOM more čem uverena.
than sure
'That she will be fine Anya is more than sure of that.'

(71) a. Tomu, čto gollandcy pobedili, Vanja ne udivilsja.
it.DAT that Dutch.NOM won Vanya.NOM not was surprised
'That the Dutch won Vanya was not surprised by that.'

b. Tem, čto u nego est' mašina, Sereža vrjad li budet it.INS that at him.GEN is car.NOM Serezha.NOM hardly will xvastat'sja.
to boast
'That he has a car Serezha will hardly boast about that.'

c. Tem, čto ej nado stol'ko platit', Maša očen' it.INS that her.DAT necessary so much to pay Masha.NOM very nedovol'na.
displeased
'That she has to pay so much Masha is very displeased about that.'

I propose the following account for the unacceptability of topicalization of *čto*-clauses. Firstly, I follow Moulton (2013) in assuming that CPs cannot move by themselves so in the examples (64a)–(64d), (65a)–(65c) with topicalization from a Case position and in the examples (68a)–(68c) and (69a)–(69c) with topicalization from a "Caseless" position *čto*-clauses have to move along with the null DP-layer, reflecting the fact that overt correlatives also cannot be stranded, as shown in (72a)–(72b).

(72) a. * Čto u nee budet mnogo svobodnogo vremeni,
that at her.GEN will be a lot free time.GEN
Maša uže ne nadeetsja na to.
Masha.NOM already not hopes for it.ACC

b. * Čto gollandcy pobedili, Vanja ne udivilsja tomu.
that Dutch.NOM won Vanya.NOM not was surprised it.DAT

Secondly, I assume that the P_{CP}, which by assumption introduces the sentential argument in a "Caseless" position in (68a)–(68c) and (69a)–(69c), cannot move along with the DP due to obligatory incorporation to the predicate (see Chapter 3 for the details). Consequently, the only remaining structures for sentences with clauses topicalized from a Case position such as (64c) and (65a) are given in (73a) and (73b). The structures for sentences with clauses topicalized from a "Caseless" position such as (68b) and (69b) are given in (74a) and (74b). We have to understand what rules out these structures.[23]

(73) a. * [$_{DP}$ $\varnothing_D$ čto èta zadača ne imeet rešenija],
that this problem.NOM not has solution.GEN
Vanja dokazal *t* davno.
Vanya.NOM proved long ago

b. * [$_{DP}$ $\varnothing_D$ čto on priexal], menja ne udivljaet *t*.
that he.NOM came me.ACC not surprises

(74) a. * [$_{DP}$ $\varnothing_D$ čto žit' v Moskve deševo], Vanya vrjad li
that to live in Moscow.LOC cheap Vanya.NOM hardly
budet nastaivat' P_{CP} *t*.
will to insist

b. * [$_{DP}$ $\varnothing_D$ čto u nego est' mašina], Sereža vrjad li
that at him.GEN is car.NOM Serezha.NOM hardly
budet xvastat'sja P_{CP} *t*.
will to boast

The ungrammaticality of the structures in (74a) and (74b) can be accounted for by the ban on P-stranding in Russian, illustrated in (75a); cf. (75b).

(75) a. * Čto Maša nadeetsja na?
this.ACC Masha.NOM hopes for

b. Na čto Maša nadeetsja?
for this.ACC Masha.NOM hopes
'What does Masha hope for?'

This account, however, cannot be extended to the structures in (73a) and (73b), which do not involve P-stranding. In order to account for these structures, I would like to capitalize on the notion of unrealized Case that I previously used for other aspects of the distribution of *čto*-clauses. In particular, I would like to propose that DPs with unrealized Case cannot move. This is formulated in (76).[24] I will leave open the question about how to derive it from deeper

[23] Another question is why the relevant examples do not produce strong ungrammaticality. One possibility is that they can be marginally analyzed as contrastive topics along the lines of examples in (ia)–(ib) from footnote 21.

[24] If null operators are assigned Case, as often argued, they must be exempt from this condition. I leave this problem for future research.

principles. Instead I will present an empirical argument for this condition based on the English data in section 2.4.3.

(76) Only DPs with realized Case can undergo (A-bar) movement.

Given the condition in (76), the ban on structures in (73a)–(73b) and (74a)–(74b) will follow. In order to move, sentential arguments will have to bear realized Case. This, however, is only possible if they have an overt DP-layer, i.e. the correlative *to*. Hence topicalized clauses will show up as *to*,*čto*-clauses both in Case positions as in (66a)–(66d) and (46b)–(67c) and in "Caseless" positions in (70a)–(70c) and (71a)–(71b). In contrast, *čto*-clauses in the corresponding positions, as in (64a)–(64d) and (65a)–(65c) and (68a)–(68c) and (69a)–(69b) will be degraded.[25]

2.4.2 On the nature of the English *that*-clauses

The account proposed above raises some questions about the English *that*-clauses. As we already saw in section 1.4.2, *that*-clauses can topicalize (from positions in which DPs can appear; see (36) from the Introduction). This as shown in (77a). Cf. the ban on topicalization in (77b) from a position in which a DP cannot appear.

(77) a. That the moon is made of cheese, I've come to believe.
b. * That the Giants would win the World Series, their fans have never stopped hoping.

(Alrenga 2005:192)

Assuming that examples like (77a) are derived by movement of *that*-clauses embedded in a null DP-layer (see Takahashi 2010), the question is why they do not violate the principle in (76), as opposed to *čto*-clauses in Russian.

I would like to suggest that these differences stem from the independent difference between the complementizers *that* and *čto*. In particular, I will assume (78).

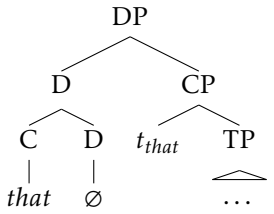
(78) a. The complementizer *that* can realize structural Case features.
b. The complementizer *čto* cannot realize Case features.

There is some suggestive evidence in support of this assumption. As I argued above, Russian *čto*-clauses realize their DP-layer by virtue of the insertion of the correlative *to*, which is a D head, otherwise realizing the (distal) neuter singular demonstrative. Now suppose that in English, the complementizer *that*

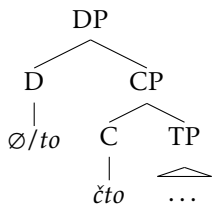
[25] An alternative derivation of sentential topics is that they are base generated in the left periphery (see Koster 1978, Alrenga 2005). If this analysis is correct, the question arises how they would be ruled out. Assuming that left-dislocated topics are assigned default case and that default case has to be morphologically realized, then it would follow that sentential topics require overt DP layer and hence have to be *to*,*čto*-clauses.

can realize the DP-layer itself, concretely, by virtue of undergoing movement to D. This is represented in (79), cf. Russian *čto*-clauses in (80).

(79)



(80)



This proposal is plausible in view of the fact that the English complementizer *that* stems from the demonstrative *that* (see Bošković 1995 and references therein). Taking the morphological makeup of the complementizer seriously, we may assume that the complementizer *that* is associated with at least two categorial features, namely D and C.[26] Now in order to "lexicalize" the D-feature the complementizer *that* will undergo head-movement to the D head.[27] Now that the complementizer *that* will occupy the D position, it will be able to realize Case features.

In contrast, the Russian complementizer *čto*, which is morphologically identical to the nominative/accusative form of the wh-word *čto* 'what' (see (81)), is not related to a referential D-element in a way that the complementizer *that* is, and hence stays in a lower position. Therefore it does not lexicalize a D-feature and cannot realize Case in the same way as the English complementizer *that*.

(81) a. Čto ej nravitsja?
what.NOM her.DAT appeals
'What appeals to her?'

b. Čto Vanja dokazal?
what.ACC Vanya.NOM proved
'What did Vanya prove?'

The data in (77a) can now be straightforwardly accounted for under the proposed account. Since the *that*-clause can realize Case, it will be assigned (realized) Accusative Case prior to movement and hence will not violate (76). In contrast, the example in (77b) will still be blocked by (76) since the only source of Case in the structure is, by assumption, P_{CP}, which assigns unrealized Case.

[26] Note that D and C might be be treated as shortcuts for more elaborate functional sequences.

[27] The idea that a lexical item may be associated with multiple categorial features is not new. It is routinely employed in the Nanosyntactic framework, as, e.g., in Ramchand's (2008) of VP structure). One example outside Nanosyntax would be Folli and Harley's (2005) proposal that verbs are lexically associated with a particular "flavor" of little v (e.g., *murder* would be associated with a variety of little v that introduces Agents), that the verb 'lexicalizes' by undergoing the standardly assumed V-to-v movement.

The proposed account also explains another difference between English *that*-clauses and Russian *čto*-clauses, namely, that only the former can appear in the (thematic) subject position, as shown in (82a); cf. the corresponding example from Russian in (4a), repeated from above. Given that the complementizer *that* will have the structure as in (79), the complement clause will have an overt head and thus will be able satisfy the EPP property, assuming Landau's (2007) account of the EPP, as before. In contrast, given the structure in (80) for the Russian complementizer *čto*, only *to*,*čto*-clauses, with the overt D head, will be possible in this position.

(82) a. That the judge was late proved that John was guilty.
(Safir 1985:70)

b. *(To,) čto on èto skazal, dokazyvaet ego
it.NOM that he.NOM this.ACC said proves his
nevinovnost'.
innocence.ACC
'(The fact) that he said this proves his innocence.'

Further evidence for the proposed account comes from the data in (83a)–(83b). Note that even though the the complementizer *that* can realize Case features, it can only realize structural Case, as stated in (78a). This correctly predicts that *that*-clauses cannot appear as complements of P, as shown in (83a), just like Russian *čto*-clauses (see the discussion in section 2.2.2). Since a *that*-clause can only realize structural Case, it will fail to realize the inherent Case assigned by P in violation of the principle in (38).

(83) a. * Their fans have never stopped hoping for that the Giants would win the World Series.

b. That the Giants would win the World Series, their fans have never stopped hoping for.
(Alrenga 2005:192)

Interestingly, a *that*-clause becomes possible in this construction if it is topicalized, leaving the preposition *for* stranded, as shown in (83b), repeated from above. At first glance, the acceptability of (83b) is puzzling in view of the fact that *for* is expected to assign inherent Case, not realizable by the complementizer *that*. Note, however, that preposition stranding has been convincingly argued to involve Reanalysis (Hornstein and Weinberg 1981). According to Hornstein and Weinberg (1981), Reanalysis renders stranded P part of the V-P complex, leading to the change in the properties of the case assigned to the object position. Thus, the V-P complex assigns structural rather than inherent Case. Under this analysis, the example in (83b) is correctly predicted to be fine.[28] Since the complementizer *that* in (83b) will be assigned structural

[28] This account presupposes that Reanalysis cannot apply in the non-topicalized example (83a), otherwise we would expect it to be fine, contrary to fact. I will assume that P reanalyses with the verb only when stranded.

Case from the V-P complex prior to movement, it will be able to realize it, in accordance with (78a). Besides, since the *that*-clause will have realized Case, it will be able to undergo topicalization, complying to the principle in (76).

2.4.3 An argument from the distribution of *that*-less clauses

Now we are in a position to present an empirical argument for the condition in (76), which I used to account for the restriction on topicalization of *čto*-clauses. As I just showed, English *that*-clauses can topicalize by virtue of having the complementizer which can realize (structural) Case features. This account makes a prediction about clauses without *that*, illustrated in (84).

(84) Mary thinks Sue left.
cf. Mary thinks that Sue left.
(Pesetsky and Torrego 2004)

The prediction is that once the complementizer is absent from the structure, there will be no element to realize Case.[29] This is formulated in (85).

(85) Clauses without *that* cannot be assigned realized Case.

Under (85), the condition on movement in (76) will predict that clauses without *that* will fail to move and topicalize. This prediction is confirmed. As is well-known, *that*-less clauses cannot appear in the topic position, as shown in (86).[30]

(86) * John likes Mary Jane didn't believe.
cf. That John like Mary Jane didn't believe.
(Bošković and Lasnik 2003:529)

The account also correctly predicts that *that*-less clauses will fail to appear as sentential subjects. Assuming that sentential subjects move to SpecTP to satisfy the EPP, they will have to have an overt head, as I suggested earlier (see Landau 2007), and thus will have to be introduced by the complementizer *that*. This expectation is borne out, as shown in (87).[31]

(87) * Sue left is obvious.
cf. That Sue left is obvious.
(Pesetsky and Torrego 2004)

[29] More specifically, I am assuming that English *that*-less clauses have the same structure as *that*-less clauses (see (79)) except that both their C and D heads lack phonological realization, as shown in (i).

(i) $[_{DP}\ \varnothing_D\ [_{CP}\ \varnothing_C\ [_{TP}\ \dots]]]$

[30] See an alternative account in Bošković and Lasnik 2003.

[31] In Landau's (2007) analysis these data follow from the fact that *that*-less clauses have a non-overt C head.

Similarly, *that*-less clauses will be predicted to be banned as complements of (overt) P.[32] This prediction is borne out, as shown in (88).

(88) * Masha hopes for [she will have a lot of free time].
cf. Masha hopes [she will have a lot of free time].

Finally, the condition in (76) can also account for the restriction on *that*-less clauses in other constructions such as extraposition, pseudoclefting and right node raising, illustrated in (89a)–(89c), if these construction involve a movement of the complement clause.

(89) a. It seemed at that time *(that) David had left.
b. What the students believe is *(that) they will pass the exam.
c. They suspected and we believed *(that) Peter would visit the hospital.

(Bošković and Lasnik 2003:529)

Summarizing, the distributional restrictions on English *that*-less clauses directly follow from the Case realization account proposed above with no additional stipulations.

2.5 Summary and interim conclusion

In this chapter I argued that *čto*-clauses project a DP-layer by virtue of the nominal properties of their complementizer (developing the existing DP-layer accounts of sentential arguments such as Takahashi 2010, Davies and Dubinsky 2009). I further argued that the DP layer can be either left unpronounced or realized by the correlative *to*, giving rise to the *to*,*čto*-clause construction. I then examined the well-known distributional differences between *čto*-clauses, now analyzed as DPs, and ordinary noun phrases, which are often used as potential evidence against an "across-the-board" DP-layer account of sentential arguments. I showed that these differences follow under the Case requirement of *čto*-clauses in (19) coupled with some independently motivated assumptions regarding Case realization. In particular, I argued that *čto*-clauses are assigned unrealized Case, which is provided by null P in "Caseless" positions and unavailable in certain Case positions (such as object of P and SpecTP). I also discussed some differences between *čto*-clauses and *that*-clauses and argued that these follow the assumption that the complementizer *that* can realize structural Case.

The account of the distribution of *čto*-clauses just presented relied on the main proposal regarding the licensing of sentential arguments by P_{CP} in "Caseless" positions. In the next chapter I return to the agentivity puzzle from the Introduction (see section 1.1), which will serve as an independent argument for P_{CP}.

[32] I am grateful to Ora Matushansky (p.c.) for pointing this out to me.

CHAPTER 3

The argument from the agentivity puzzle

In this chapter I present an argument for the Case requirement of *čto*-clauses. The argument comes from the agentivity puzzle given in (1).

(1) *The agentivity puzzle*
A number of Russian propositional-argument-taking verbs that have both agentive and non-agentive uses (i.e. display an agentivity alternation) and take *čto*-clause complements in their agentive uses fail to do so in their non-agentive uses.

The agentivity puzzle is formulated on the basis of the patterns displayed by the verbs *grozit'* 'threaten', *govorit'* 'say', *namekat'* 'hint' and *napominat'* 'remind'. I will refer to these verbs as the "agentivity puzzle verbs".[1] I will discuss these patterns one by one in section 3.1. In section 3.3 I introduce Reinhart's (2002; To appear) Theta System, which serves as the framework for the account of the agentivity puzzle. In section 3.2 I introduce the proposal about the licensing of P_{CP}. In section 3.4 I provide the analysis of the alternating verbs in terms of the Theta System and show how the Case requirement of *čto*-clauses along with the P_{CP} proposal accounts for the agentivity puzzle.

[1] There are potentially other verbs displaying this pattern. But I identified these as having a particularly clear profile.

3.1 Illustrating the agentivity puzzle

3.1.1 *Govorit'* 'say'

I will start with the verb *govorit'* 'say', which I already briefly discussed in the Introduction. *Govorit'* 'say' allows both an agentive and a non-agentive use. I will start with the agentive use. In its agentive use the verb has two different realizations of its propositional argument. In the more basic case the propositional argument of *govorit'* 'say' is realized as a *čto*-clause, as illustrated in (2a)–(3a). When realized as a nominal complement, the propositional argument surfaces as an accusative DP, as illustrated in (2b)–(3b).[2] In this case *govorit'* 'say' functions as a basic verb of communication, its subject expresses the Agent of the communicative act and the (optional) dative argument the addressee. Note that whereas in (2a)–(2b) *govorit'* 'say' reports, as it were, the "bare utterance", in (3a)–(3b) it expresses a report of a discourse move, i.e. an attempt to place the proposition in the common ground (see Anand and Hacquard 2013).[3]

(2) a. Maša govorit Vane, čto on neprav.
Masha.NOM says Vanya.DAT that he.DAT wrong
'Masha says to Vanya that he is wrong.'

b. Čto Maša govorit Vane?
What.ACC Masha.NOM says Vanya.DAT
'What does Masha say to Vanya?'

(3) a. Učenye govorjat, čto na ètoj territorii ran'še žili ljudi.
scientists.NOM say that on this territory.LOC earlier lived people.NOM
'Scientists say that earlier people used to live on this territory.'

b. Čto govorjat učenye?
what.ACC say scientists.NOM
'What do scientists say?'

The propositional argument of *govorit'* 'say' can also be realized as a *to,čto*-clause embedded in a PP headed by *o* 'about', as in (4a), which would correspond in the nominal domain to the PP complement, as in (4b). In this case the verb has a slightly different meaning, expressing a report of a discourse move.[4]

[2] *Govorit'* 'say' has restrictions on the realization of the accusative complement, allowing mostly pronominal and pronominal-like expressions like 'thing' and disallowing nominalizations (see Moltmann 2003 for an extensive discussion).

[3] In examples like (3a)–(3b) (see also (4a)–(4b)) with the discourse move reading the dative argument is usually left implicit and interpreted as generic.

[4] In a context that favors the bare utterance reading, the PP complement is infelicitous, as shown in (i).

(4) a. Učenye govorjat o tom, čto na ètoj territorii
scientists.NOM say about it.LOC that on this territory.LOC
ran'še žili ljudi.
earlier lived people.NOM
'Scientists are speaking about the fact that earlier people used to live on this territory.'

b. O čem govorjat učenye?
about what.LOC say scientists.NOM
'What are scientists speaking about?'

Now let's turn to the non-agentive use of *govorit'* 'say', illustrated in (5)–(6). In the non-agentive use the sentence has a flavor of an epistemically modalized statement, where the subject is interpreted as the evidence on the basis of which the statement is made. This is rendered by the verb 'indicate' in the translation; also witness the infelicity of the manner-of-speech adverb in (5a)–(5b).[5] The pattern displayed by the non-agentive use of *govorit'* 'say' differs in two respects from the agentive one. Firstly, when the propositional argument is realized as a nominal complement, only a PP complement is possible but not an accusative DP, as shown in (5a)–(6a). Secondly, the propositional argument cannot be realized as a *čto*-clause, as shown in (5c)–(6c). Only a *to*,*čto*-clause embedded in a PP is possible, as shown in (5b)–(6b). Note that although examples with *čto*-clauses in (5c)–(6c) are severely degraded, they are not absolutely ungrammatical, a point I will return to in section 3.1.5; see also (37a)–(37b) below for a somewhat stronger acceptability contrast.[6]

(5) a. { O čem / * čto} (*šepotom) govorjat èti
about what.LOC what.ACC in whisper say these
naxodki?
findings.NOM
'What do these findings indicate (*in whisper)?'

(i) ?? Maša govorit Vane o tom, čto on neprav.
Masha.NOM says Vanya.DAT about it.LOC that he.DAT wrong
Lit.: 'Masha is talking to Vanya about the fact that he is wrong.'

[5] Cf. the felicity of (i), with the agentive variant of the verb.

(i) Učenye šepotom govorjat (o tom), čto na ètoj territorii ran'še žili
scientists.NOM in whisper say about it.LOC that on this territory.LOC earlier lived
ljudi.
people.NOM
Lit. 'Scientists are speaking in whisper about the fact that earlier people used to live on this territory.'

[6] Note that the epistemic interpretation is necessary for the verb to show the non-agentive pattern. For example, as I will show in section 3.1.5, certain classes of inanimate subjects such as 'the article' display the agentive pattern unless the sentence has an epistemic interpretation.

b. Èti naxodki (*šepotom) govorjat o tom, čto na
these findings.NOM in whisper say about it.LOC that on
ètoj territorii ran'še žili ljudi.
this territory.LOC earlier lived people.NOM
'These findings indicate (*in whisper) that earlier people used to live on this territory.'

c. * Èti naxodki govorjat, čto na ètoj territorii
these findings.NOM in whisper say that on this
ran'še žili ljudi.
territory.LOC earlier lived people.NOM
Intended: 'These findings indicate that earlier people used to live on this territory.'

(6) a. { O čem / * čto} govorit vid grafika?
about what.LOC what.ACC says look.NOM graph.GEN
'What does the look of the graph indicate?'

b. Vid grafika govorit o tom, čto rezul'taty
look.NOM graph.GEN says about it.LOC that results.NOM
falsificirovany.
falsified
'The look of the graph indicates that the results are falsified.'

c. * Vid grafika govorit, čto rezul'taty falsificirovany.
look.NOM graph.GEN says that results.NOM falsified
Intended: 'The look of the graph indicates that the results are falsified.'

Also note that in the non-agentive use of *govorit'* 'say' the dative argument is usually left implicit. It can only be realized as the first person plural pronoun in its non-specific/generic use (see Kamio 2001), as shown by the awkwardness of other pronouns in (7a)–(7b).

(7) a. Èti naxodki govorjat { nam / ?? mne / ?? ej}
these findings.NOM say us.DAT me.DAT her.DAT
o tom, čto na ètoj territorii ran'še žili ljudi.
about it.LOC that on this territory.LOC earlier lived people.NOM
'These findings indicate to us/me/her that earlier people used to live on this territory.'

b. O čem govorjat { nam / ?? mne / ?? ej} èti
about what.LOC say us.DAT me.DAT her.DAT these
naxodki?
findings.NOM
'What do these findings indicate to us/me/her?'

When the dative argument is realized, the non-agentive *govorit'* 'say' with a *čto*-clause remains unacceptable, as shown in (8a), although the judgment becomes a little less harsh compared to the examples without the dative in (5c); cf. the fully acceptable example with a *to*,*čto*-clause in (8b).

(8) a. *? Èti naxodki govorjat nam, čto na ètoj territorii
these findings.NOM say us.DAT that on this territory.LOC
ran'še žili ljudi.
earlier lived people.NOM
Intended: 'These findings indicate to us that earlier people used to live on this territory.'

b. Èti naxodki govorjat nam o tom, čto na ètoj
these findings.NOM say us.DAT about it.LOC that on this
territorii ran'še žili ljudi.
territory.LOC earlier lived people.NOM
'These findings indicate to us that earlier people used to live on this territory.'

To summarize, *govorit'* 'say' can realize its propositional argument as an accusative DP, a *čto*-clause or a PP when it is agentive, but it can only take a PP complement and cannot take a *čto*-clause (or an accusative DP) when it is non-agentive.

3.1.2 *Grozit'* 'threaten'

Let's turn to the verb *grozit'* 'threaten', which I also discussed in the Introduction. First note that the verb has both a two-place and a three-place use. The two-place use, illustrated in (9), will not be directly relevant to the agentivity puzzle. This is because in this use the verb does not display the agentivity alternation as its propositional argument, realized as a nominative DP or a *čto*-clause, already occupies the subject position, which is the locus of alternation.

(9) Maše grozit {uvol'nenie / čto ona budet uvolena}.
Masha.DAT threatens firing.NOM that she.NOM will be fired
'Masha is in danger of being fired.'

I will be interested in the three-place argument structure, where the agentive vs. non-agentive alternation can be observed. I first discuss the agentive use illustrated in (10a)–(10b). This argument structure is characterized by the presence of the nominative subject expressing the Agent of a speech act of threatening, the dative argument interpreted as the addressee of the speech act, i.e. the Goal of the treat, and the propositional argument expressing the propositional content of the speech act, i.e. the situation that specifies what the threat is. The propositional argument can be realized as a nominal complement

marked with instrumental case, as in (10a), as a *to*,*čto*-clause marked with instrumental case, as in (10b), or as a 'bare' *čto*-clause, as in (10c).[7]

(10) a. Načal'nik grozit Maše uvol'neniem.
boss.NOM threatens Masha.DAT dismissal.INS
'The boss threatens Masha with dismissal.'

b. Načal'nik grozit Maše tem, čto ona budet uvolena.
boss.NOM threatens Masha.DAT it.INS that she.NOM will be fired
'The boss threatens Masha with the fact that she will be fired.'

c. Načal'nik grozit Maše, čto ona budet uvolena.
boss.NOM threatens Masha.DAT that she.NOM will be fired
'The boss threatens Masha that she will be fired.'

Note that the propositional argument cannot be realized as an accusative DP, as shown by the examples in (11a)–(11b).

(11) a. * Načal'nik grozit Maše uvol'nenie.
boss.NOM threatens Masha.DAT dismissal.ACC
Intended: 'The boss threatens Masha with dismissal.'

b. {Čem / * čto} Maše grozit načal'nik?
what.INS what.ACC Masha.DAT threatens boss.NOM
'What does the boss threatens Masha with?'

Now let's turn to the non-agentive use of *grozit'* 'threaten', illustrated in (12a)–(12c). In the non-agentive use the subject expresses the Cause of the threat, i.e. the situation which, according to the speaker, presents a threat to the referent of the dative argument. The propositional argument expresses the content of the threat, i.e. the situation that specifies what the threat is. As opposed to the agentive use, the propositional argument in the non-agentive use can only be realized by a nominal complement or a *to*,*čto*-clause marked with instrumental case, as in (12a)–(12b), but crucially not as a bare *čto*-clause, as shown in (12c).

(12) a. Opozdanie grozit Maše uvol'neniem.
being late.NOM threatens Masha.DAT dismissal.INS
'Being late threatens Masha with dismissal.'

b. Opozdanie grozit Maše tem, čto ona budet uvolena.
being late.NOM threatens Masha.DAT it.INS that she.NOM will be fired
'Being late threatens Masha with being fired.'

[7] The example with a *čto*-clause in (10c) has a more colloquial flavor compared to the one with a *to*,*čto*-clause in (10b) but it is clearly acceptable.

c. * Opozdanie grozit Maše, čto ona budet
being late.NOM threatens Masha.DAT that she.NOM will be
uvolena.
fired
Intended: 'Being late threatens Masha with being fired.'

Again as with the agentive variant the propositional argument cannot be realized as an Accusative DP, as shown in (13a)–(13b).

(13) a. * Opozdanie grozit Maše uvol'nenie.
being late.NOM threatens Masha.DAT dismissal.ACC
Intended: 'Being late threatens Masha with dismissal.'

b. {Čem / * čto} Maše grozit opozdanie?
what.INS what.ACC Masha.DAT threatens being late.NOM
'What does being late threatens Masha with?'

To summarize, *grozit'* 'threaten' can realize its propositional argument as a nominal complement or a *to,čto*-clause marked with instrumental case both in its agentive and non-agentive use but allows a bare *čto*-clause complement only when it is agentive.

3.1.3 *Namekat'* 'hint'

Next I turn to the verb *namekat'* 'hint', which also allows both an agentive and a non-agentive use. The agentive use is illustrated in (14a)–(14b). In the agentive use the verb expresses a speech act with an indirectly communicated content. The subject expresses the Agent of the speech act, the optional dative argument expresses the addressee and the propositional argument expresses the communicated content. The propositional argument can be realized as a *to,čto*-clause embedded in a PP complement, as in (14a), or a bare *čto*-clause, as in (14b). The propositional argument can also be expressed by a nominal complement, in which case it is realized as a PP complement, an accusative DP is not allowed, as shown in (14c).

(14) a. Maša (tixon'ko) namekaet Vane na to, čto
Maša.NOM quietly hints Vanya.DAT on it.ACC that
pora uxodit'.
high time to go
'Maša (quietly) implies to Vanya that it is high time they went.'

b. Maša (tixon'ko) namekaet Vane, čto pora
Maša.NOM quietly hints Vanya.DAT that high time
uxodit'.
to go
'Maša (quietly) implies to Vanya that it is high time they went.'

c. { Na čto / * čto} Maša (tixon'ko) namekaet
on what.ACC what.ACC Masha.NOM quietly implies
Vane?
Vanya.DAT
'What does Masha (quietly) imply to Vanya?'

The non-agentive use of *namekat'* 'hint' is illustrated in (15a)–(15b). In the non-agentive use the verb has a meaning similar to that of the non-agentive *govorit'* 'say'. It also expresses an epistemically modalized statement whose propositional content is provided by the sentential argument and where the subject expresses the evidence for the statement; witness the infelicity of the manner-of-speech adverb in (15a) and (15c). The peculiarity of *namekat'* 'hint' is that it also specifies that this evidence has to be indirect. The dative argument is also usually left implicit and is interpreted as generic. The realization of the propositional argument of the non-agentive *namekat'* 'hint' is also similar to the non-agentive *govorit'* 'say' and differs from the agentive variant of the verb. The propositional argument has to be realized as a *to,čto*-clause embedded in a PP complement, as shown in (15a), a bare *čto*-clause is degraded, as shown in (15b).[8] In the nominal domain the pattern is the same as in the agentive case, as shown in (15c).

(15) a. Forma zdanija (*tixon'ko) namekaet na to, čto
shape.NOM building.GEN quietly hints on it.ACC that
èto ne stalinskij ampir.
this.NOM not Stalinist Empire.NOM
'The shape of the building (*quietly) suggests that this is not Stalinist architecture.'

b. * Forma zdanija namekaet, čto èto ne
shape.NOM building.GEN hints that this.NOM not
stalinskij ampir.
Stalinist Empire.NOM
Intended: 'The shape of the building suggests that this is not Stalinist architecture.'

c. { Na čto / * čto} (*tixon'ko) namekaet forma
on what.ACC what.ACC quietly hints shape.NOM
zdanija?
building.GEN
'What does the shape of the building (*quietly) suggest?'

Examples such as (16a) with the dative argument realized as a non-specific first person plural pronoun parallel to the examples in (8a) are again not fully acceptable, cf. the corresponding example with a *to,čto*-clause in (16b).

[8] Again, although examples such as (15b) are clearly unacceptable, they do not produce strong grammaticality violations. See also (38a)–(38b) below for a somewhat stronger acceptability contrast.

(16) a. *? Forma zdanija namekaet nam, čto èto ne
shape.NOM building.GEN hints us.DAT that this.NOM not
stalinskij ampir.
Stalinist Empire.NOM
Intended: 'The shape of the building suggests to us that this is not Stalinist architecture.'

b. Forma zdanija namekaet nam na to, čto
shape.NOM building.GEN hints us.DAT on it.ACC that
èto ne stalinskij ampir.
this.NOM not Stalinist Empire.NOM
'The shape of the building suggests to us that this is not Stalinist architecture.'

To summarize, *namekat'* 'hint' allows both a PP complement and a *čto*-clause complement when it is agentive but only a PP complement but not a *čto*-clause complement when it is non-agentive.

3.1.4 *Napominat'* 'remind'

Finally, let's turn to *napominat'* 'remind', which shows a slightly more complicated pattern. *Napominat'* 'remind' can also have an agentive or a non-agentive use. The agentive use is illustrated in (17a)–(17b). In the agentive use the verb expresses a communicative act whose goal is to remind the addressee of some propositional content. The subject expresses the Agent of the communicative act, the optional dative argument expresses the addressee and the propositional argument expresses the communicated content. The propositional argument is realized as a *to*,*čto*-clause embedded in a PP complement, as in (17a), or a *čto*-clause, as in (17b). When the propositional argument is expressed by a nominal complement, it is realized as a PP, an accusative DP is not allowed, as shown in (17c).[9]

(17) a. Maša (tixon'ko) napominaet dokladčiku o tom, čto
Masha.NOM quietly reminds speaker.DAT about it.LOC that
u nego ostalos' pjat' minut.
at him.GEN left five minutes.GEN
'Masha (quietly) reminds the speaker about the fact that he has five minutes left.'

b. Maša (tixon'ko) napominaet dokladčiku, čto u nego
Masha.NOM quietly reminds speaker.DAT that at him.GEN
ostalos' pjat' minut.
left five minutes.GEN
'Masha (quietly) reminds the speaker that he has five minutes left.'

[9] The example in (17c) is acceptable on the 'resemble' reading, see footnote 15.

c. { O čem / * čto} Maša (tixon'ko) napominaet
on what.ACC what.ACC Masha.NOM quietly reminds
dokladčiku?
speaker.DAT
'What does Masha (quietly) remind the reader about?'

Now let's turn to the non-agentive *napominat'* 'remind'. I would like to argue that the non-agentive *napominat'* 'remind' is ambiguous between the two readings, which have different patterns of argument realization. On the one hand, non-agentive *napominat'* 'remind' can have a causative reading, illustrated in (18)–(19). On this reading the subject expresses some entity or situation that causes the Experiencer expressed by the dative argument to entertain some proposition (forgotten by the Experiencer) realized by the sentential complement; witness the infelicity of the manner-of-speech adverb in (18a)–(18b). The propositional argument in this case can be realized as a *to*,*čto*-clause embedded in a PP, as in (18b)–(19b) or as a bare *čto*-clause, as in (18a)–(19a). The causative reading can be elucidated by the availability of paraphrases in (20a)–(20b) corresponding to the sentences in (18a)–(19a).[10] Note that on the causative reading the Experiencer is usually, though not always, realized and has a specific interpretation (but see below).[11]

(18) a. Oblik teatra (*tixon'ko) napominaet Maše, čto
look.NOM theater.GEN quietly reminds Masha.DAT that
ona skoro poedet v Париž.
she.NOM soon will go to Paris.ACC
'The look of the theater building (*quietly) reminds Masha that she soon goes to Paris.'

[10] I chose *pri vide* as the most naturally sounding preposition for such paraphrases. Even though it does not strictly speaking express a causal relation, the causal relation is contextually inferred.

[11] The specific reading of the unrealized Experiencer can be licensed, as in (iab), only when it is introduced in the previous context and is sufficiently salient.

(i) {*Context*: Masha is very upset/happy.}

a. ? Rel'ef mestnosti napominaet, čto ona daleko ot doma.
landscape.NOM area.GEN reminds that she.NOM far from home.GEN
'The landscape of this area reminds ⟨her⟩ that she is far from home.'

b. ? Oblik teatra napominaet, čto ona skoro poedet v Париž.
look.NOM theater.GEN reminds that she.NOM soon will go to Paris.ACC
'The look of the theater building reminds ⟨her⟩ that she soon goes to Paris.'

b. Oblik teatra (*tixon'ko) napominaet Maše o
look.NOM theater.GEN quietly reminds Masha.DAT about
tom, čto ona skoro poedet v Pariž.
it.LOC that she.NOM soon will go to Paris.ACC
'The look of the theater building (*quietly) reminds Masha about the fact that she soon goes to Paris.'

(19) a. Rel'ef mestnosti napominaet Maše, čto ona
landscape.NOM area.GEN reminds Masha.DAT that she.NOM
daleko ot doma.
far from home.GEN
'The landscape of this area reminds Masha that she is far from home.'

b. Rel'ef mestnosti napominaet Maše o tom,
landscape.NOM area.GEN reminds Masha.DAT about it.LOC
čto ona daleko ot doma.
that she.NOM far from home.GEN
'The landscape of this area reminds Masha that she is far from home.

(20) a. Pri vide oblika teatra Maša vspominaet, čto
by sight.LOC look.GEN theater.GEN Masha.NOM recalls that
ona skoro poedet v Pariž.
she.NOM soon will go to Paris.ACC
'At the sight of the theater building Masha recalls that she soon goes to Paris.'

b. Pri vide rel'efa mestnosti Maša vspominaet,
by sight.LOC landscape.GEN area.GEN Masha.DAT recalls
čto ona daleko ot doma.
that she.NOM far from home.GEN
'At the sight of the landscape of this area Masha recalls that she is far from home.'

The other reading of the non-agentive *napominat'* 'remind' is epistemic and it is illustrated in (21)–(22). On this reading the verb is similar to the non-agentive *govorit'* 'say' and *namekat'* 'hint', discussed above. The sentence gets interpreted as an epistemically modalized statement whose propositional content corresponds to the sentential complement and where the subject expresses the evidence for the statement; witness the infelicity of the manner-of-speech adverb in (21b). The peculiarity of *napominat'* 'remind' is that it also specifies that the propositional content has to be part of the common ground. On the epistemic interpretation the sentential complement can only be realized as a *to,čto*-clause embedded in a PP complement, as in (21b)–(22b). A bare

čto-clause is degraded, as shown in (21a)–(22a).[12]

(21) a. *? Oblik teatra napominaet, čto on byl postroen
look.NOM theater.GEN reminds that he.NOM was built
po obrazcu parižskogo "Odeona".
by model.DAT Parisian Odeon.GEN
Intended: 'The look of the theater building reminds of the fact that it was built on the model of the Parisian Odeon.GEN.'

b. Oblik teatra (*tixon'ko) napominaet o tom, čto
look.NOM theater.GEN quietly reminds about it that
on byl postroen po obrazcu parižskogo "Odeona".
he.NOM was built by model.DAT Parisian Odeon.GEN
'The look of the theater building (*quietly) reminds of the fact that it was built on the model of the Parisian Odeon.'

(22) a. *? Rel'ef mestnosti napominaet, čto na ètom
landscape.NOM area.GEN reminds that on this
meste kogda-to bylo ozero.
place.LOC sometime was lake.NOM
Intended: '(The character of) the landscape of the area reminds of the fact that there used to be a lake there.'

b. Rel'ef mestnosti napominaet o tom, čto na
landscape.NOM area.GEN reminds about it.LOC that on
ètom meste kogda-to bylo ozero.
this place.LOC sometime was lake.NOM
'(The character of) the landscape of the area reminds of the fact that there used to be a lake here.'

The epistemic reading can be elucidated by the availability of the paraphrases in (23a)–(23b) corresponding to the sentences in (22)–(21). Similar paraphrases are obviously impossible for the sentences with the causative reading in (18a)–(19a). Conversely, the sentences in (21b)–(22b) do not license the causative paraphrases of the kind we saw above, as shown in (24a)–(24b).

(23) a. Sudja po obliku teatra, on byl postroen po
according to look.DAT theater.GEN he.NOM was built by
obrazcu parižskogo "Odeona" (kak my uže znaem).
model.DAT Parisian Odeon.GEN as we.NOM already know
'According to the look of the theater building, it was built on the model of the Parisian Odeon (as we already know).'

[12] See also (39a)–(39b) below, illustrating the same contrast.

b. Sudja po rel'efu mestnosti, na ètom meste
according to landscape.DAT area.GEN on this place.LOC
kogda-to bylo ozero (kak my uže znaem).
sometime was lake.NOM as we.NOM already know
'According to the landscape of the area, there used to be a lake here (as we already know).'

(24) a. # Pri vide oblika teatra čelovek vspominaet,
by sight.LOC look.GEN theater.GEN person.NOM recalls
čto on byl postroen po obrazcu parižskogo
that he.NOM was built by model.DAT Parisian
"Odeona".
Odeon.GEN
'At the sight of the theater building one recalls that it was built on the model of the Parisian Odeon.'

b. # Pri vide rel'efa mestnosti čelovek
by sight.LOC landscape.GEN area.GEN person.NOM
vspominaet, čto na ètom meste kogda-to bylo ozero.
recalls that on this place.LOC sometime was lake.NOM
'At the sight of the landscape of the area one recalls that there used to be a lake here.'

Note that, just like in the case of the non-agentive *govorit'* 'say' and *namekat'* 'hint', on the epistemic reading of the non-agentive *napominat'* 'remind' the dative argument is usually left implicit and has a generic interpretation, as opposed to the causative reading, where it is usually realized (see above). In order to show more clearly that it is the difference in reading that is responsible for the licensing of *čto*-clauses we can consider examples with the causative reading where the dative argument is implicit and has a generic interpretation, as shown in (25a)–(25b), witness the causative paraphrases in (26a)–(26b). Such examples are clearly better than the corresponding examples with the epistemic reading in (21a)–(22a). The fact that examples in (25a)–(25b) are somewhat stilted, has to do with the independent property of Experiencers in Russian, which is that they tend to be overtly realized (see section 3.4.3 for some discussion).[13]

[13] This is shown, for example, by sentences in (ia)–(ib) with *ubedit'* 'convince'. Note that this is independent of the realization of the propositional argument.

(i) a. ? Èto ubeždaet, čto Maša prava.
this.NOM convinces that Masha.NOM right
'This convinces one that Masha right.'

b. ? Èto ubeždaet v tom, čto Maša prava.
this.NOM convinces in it.LOC that Masha.NOM right
'This convinces one that Masha right.'

(25) a. ? Oblik teatra napominaet, čto iskusstvo vsesil'no.
look.NOM theater.GEN reminds that art.NOM omnipotent
'The look of the theater reminds one that art is omnipotent.'

b. ? Rel'ef mestnosti napominaet, čto žizn'
landscape.NOM area.GEN reminds that life.NOM
prekrasna.
beatiful
'The landscape of the area reminds one that life is beatuful.'

(26) a. Pri vide oblika teatra čelovek vspominaet, čto
by sight.LOC look.GEN theater.GEN person.NOM recalls that
iskusstvo vsesil'no.
art.NOM omnipotent
'At the sight of the theater building one recalls that art is omnipotent.'

b. Pri vide rel'efa mestnosti čelovek vspominaet,
by sight.LOC landscape.GEN area.GEN person.NOM recalls
čto žizn' prekrasna.
that life.NOM beatiful
'At the sight of the landscape of the area one recalls that life is beatuful.'

Similarly, when we consider examples with the epistemic reading where the dative argument is realized (as the generic first person plural pronoun), as in (27a)–(28a), we can observe that they still do not become fully acceptable, which again suggests that what is crucial for licensing of *čto*-clauses is the reading of the verb.[14]

(27) a. ?? Oblik teatra napominaet nam, čto on byl
look.NOM theater.GEN reminds us.DAT that he.NOM was
postroen po obrazcu parižskogo "Odeona".
built by model.DAT Parisian Odeon.GEN
Intended: 'The look of the theater building reminds us of the fact that it was built on the model of the Parisian Odeon.'

b. Oblik teatra napominaet nam o tom, čto
look.NOM theater.GEN reminds us.DAT about it.LOC that
on byl postroen po obrazcu parižskogo "Odeona".
he.NOM was built by model.DAT Parisian Odeon.GEN
'The look of the theater building reminds us of the fact that it was built on the model of the Parisian Odeon.'

[14] Examples in (27a)–(28a) have a rather unclear acceptability status presumably because the realization of the dative argument facilitates the causative reading.

(28) a. ?? Rel'ef mestnosti napominaet nam, čto na ètom
landscape.NOM area.GEN reminds us.DAT that on this
meste kogda-to bylo ozero.
place.LOC sometime was lake.NOM
Intended: '(The character of) the landscape of the area reminds us of the fact that there used to be a lake here.'

b. Rel'ef mestnosti napominaet nam o tom,
landscape.NOM area.GEN reminds us.DAT about it.LOC
čto na ètom meste kogda-to bylo ozero.
that on this place.LOC sometime was lake.NOM
'(The character of) the landscape of the area reminds us of the fact that there used to be a lake here.'

Finally, note that the non-agentive variant of *napominat'* 'remind' on both causative and epistemic reading has the same pattern of realization of the propositional argument in the nominal domain as the agentive variant. It is realized as a PP complement, while an Accusative DP is disallowed, as shown in (30).[15]

(30) {O čem / * čto} napominaet oblik teatra?
about what.LOC what.ACC reminds look.NOM theater.GEN
'What does the look of the theater building remind one about?'

To summarize, *napominat'* 'remind' can realize its propositional argument both as a PP complement and a *čto*-clause when it is agentive or when it is non-agentive and has a causative reading. In contrast, when it is non-agentive and has an epistemic reading it can only take a PP complement but not a *čto*-clause complement.

3.1.5 Summary of the puzzle

The patterns displayed by the verbs that we have just discussed are summarized in Table 3.1.

As we can see in Table 3.1, in the agentive uses the verbs can realize their propositional argument both as *čto*-clauses and as *to*,*čto*-clauses, whereas in the non-agentive uses, with the exception of the causative reading of *napominat'*

[15] The examples such as (30) would be acceptable on the different reading of *napominat'* 'remind', in which it takes Accusative-complement, as illustrated in (i). The accusative-assigning *napominat'* 'remind' has a slightly different reading, close to 'resemble'. It does not s-select for a propositional argument and hence I will put it aside as irrelevant.

(29) Maša napominaet Katju.
Masha.NOM reminds Katya.ACC
'Masha reminds of Katya.'

Table 3.1: The agentivity puzzle

verb	argument structure specification	propositional argument			
		OBL/PP	ACC	*to,čto*-clause	*čto*-clause
grozit' 'threaten'	agentive non-agentive	Ins	✗	✓	✓ ✗
govorit' 'say'	agentive non-agentive	*o* 'about'	✓ ✗	✓	✓ ✗
namekat' 'hint'	agentive non-agentive	*na* 'on'	✗	✓	✓ ✗
napominat' 'remind'	agentive non-agentive (causative) non-agentive (epistemic)	*o* 'about'	✗	✓	✓ ✓ ✗

'remind', only *to,čto*-clauses are acceptable and *čto*-clauses are disallowed. All of these facts, including the effect of the causative reading on the acceptability of a *čto*-clause (jointly referred to as the agentivity puzzle), have to be properly accounted for. It will be the aim of this chapter to present such an account.

Before moving on, however, I will make three important observations that have to be considered when providing an account of the agentivity puzzle. Firstly, we may note that all of the verbs fail to assign Accusative Case to their propositional argument when they are non-agentive (and also when they are agentive with the exception of *govorit'* 'say'). The relation between the lack of accusative-assignment and the failure to take a *čto*-clause is not accidental. Thus, for example, if we consider other propositional-argument-taking verbs that display agentive vs. non-agentive alternation but *do* assign Accusative Case to their propositional argument, we will see that these verbs *can* take *čto*-clauses when non-agentive and thus do not show the pattern characteristic of the agentivity puzzle. This can be illustrated, for example, with verbs *dokazyvat'* 'prove' in (31), *podtverždat'* 'confirm' in (32) and *predpolagat'* 'presuppose' in (33).[16] Examples (31d)–(33d) verify that the verbs assign Accusative Case to their propositional argument while examples in (31c)–(33c) show that the verbs indeed permit *čto*-clauses when non-agentive. The (a) and (b) examples illustrate the agentive variants displaying the identical pattern.

(31) a. Vanya dokazal, čto sistema rabotaet neèffektivno.
Vanya.NOM proved that system.NOM works ineffeciently
'Vanya proved that the system works ineffeciently.'

[16] Other examples are *pokazyvat'* 'show' and *predusmatrivat'* 'foresee, stipulate'.

b. Vanya dokazal èto.
Vanya.NOM proved this.ACC
'Vanya proved this.'

c. Incident dokazal, čto sistema rabotaet neèffektivno.
incident.NOM proved that system.NOM works ineffeciently
'The accident proved that the system works ineffeciently.'

d. Incident dokazal neèffektivnost' sistemy.
incident.NOM proved inefficiency.ACC system.GEN
'The accident proved the inefficience of the system.'

(32) a. Vanya podtverždaet, čto tovary sootvetstvujut
Vanya.NOM confirms that goods.NOM comply
normam.
norms.DAT
'Vanya confirms that the goods comply to the norms.'

b. Vanya podtverždaet èto.
Vanya.NOM confirms this.ACC
'Vanya confirms this.'

c. Naličie licenzii podtverždaet, čto tovary
presence.NOM license.GEN confirms that goods.NOM
sootvetstvujut normam.
comply norms.DAT
'The presence of the license confirms that the goods comply to the norms.'

d. Naličie licenzii podtverždaet sootvetstvie
presence.NOM license.GEN confirms compliance.ACC
normam.
norms.DAT
'The presence of the license confirms compliance to the norms.

(33) a. Maša predpolagaet, čto žil'cy s"edut čerez
Masha.NOM presupposes that tenants.NOM move out in
god
year.ACC
'Masha presupposes that the tenants will move out in a year.'

b. Maša predpologaet nečto maloverojatnoe.
Masha.NOM presupposes something.ACC unlikely
'Masha presupposes something unlikely.'

c. Arenda kvartiry predpolagaet, čto žil'cy s"edut
rent.NOM flat.GEN presupposes that tenants.NOM move out

čerez god.
in year.ACC
'The rent of the flat presupposes that the tenants will move out in a year.'

d. Arenda kvartiry predpolagaet vyezd žil'cov
rent.NOM flat.GEN presupposes moving out.ACC tenants.GEN
čerez god.
in year.ACC
'The rent of the flat presupposes the tenants moving out in a year.'

The same point can be made with non-alternating non-agentive accusative-assigning verbs such as *značit'* 'mean', *označat'* 'signify', *glasit'* 'read (of signs, laws, etc.)', illustrated in (34a)–(35a); cf. (34b)–(35b).

(34) a. Èto značit/označaet, čto ty opozdal.
this.NOM means/signifies that you.NOM are late
'This means/signifies that you are late.'

b. Čto èto značit/označaet?
what.ACC this.NOM means/signifies
'What does this mean/signify?'

(35) a. Vyveska glasit, čto kurit' zapreščeno.
sign.NOM reads that to smoke prohibited
'The signboard reads that smoking is prohibited.'

b. Čto glasit vyveska?
what.ACC reads signboard.NOM
'What does the signboard read?'

To conclude, any account of the agentivity puzzle has to explain why verbs like *dokazyvat'* 'prove', which assign Accusative Case to their propositional argument, show a different pattern with the respect to the licensing of *čto*-clauses.

Secondly, we have to distinguish between the non-agentive uses of the agentivity puzzle verbs discussed above and those uses illustrated in (36a)–(36c), where the subject position is occupied by inanimate entities that express repositories of propositional information such as 'article', 'newspaper', etc.[17]

I will analyze these uses as metonymic in nature, assuming that information repository subjects replace their author (i.e. the individual responsible for their

[17] Interestingly, *grozit'* 'threaten' disallows such a use.

(i) * Pis'mo grozilo ej { (tem), čto ee uvoljat / uvol'neniem}.
letter.NOM threatened her.DAT it.INS that her.ACC fire firing.INS
Lit.: 'The letter threatened her with {the fact that she will be fired/dismissal}.'

content), which is the true (albeit unrealized) Agent of the communicative act. This is supported by the fact that examples like (36a)–(36c) are perceived as marked and non-literal.[18] Now that such uses are underlyingly agentive, they are expected to permit *čto*-clause complements.[19]

(36) a. Stat'ja govorit, čto rezul'taty falsificirovany.
article.NOM says that results.NOM falsified
'The article says that the results are falsified.'

b. Ob"javlenie napominaet, čto neobxodimo oplatit' bagaž.
announcement.NOM reminds that necessary to pay luggage.ACC
Lit.: 'The announcement reminds that it is necessary to pay for the luggage.'

c. Stat'ja namekaet, čto problema ne rešena.
article.NOM hints that problem.NOM not solved
'The article implies that the problem is not solved.'

The availability of *čto*-clause complements in information repository uses of the relevant verbs has an important implication. When establishing whether a given verb in the non-agentive use allows a *čto*-clause complement one has to carefully control for the lack of the information repository construal of the subject because the availability of such construal might wrongly suggest that the pattern in Table 3.1 is violated. A good way to avoid this potential confound is to use quantifier pronouns like *vse* 'everything' or *mnogoe* 'much' as subjects of the non-agentive verbs as these pronouns disallow the information repository construal and force the epistemic interpretation.[20] This is illustrated for verbs *govorit'* 'say', *namekat'* 'hint' and *napominat'* 'remind' in (37)–(39); cf.

[18] This analysis is also supported by the fact that *govorit'* 'say' in such a use can take an accusative complement just like in the standard agentive case. This is shown in (i).

(i) a. Čto govorit stat'ja?
what.ACC says article.NOM
'What does the article say?'

[19] Anand and Hacquard (2009) analyze information repository subjects (with a different array of verbs) as true Agents of a communicative act. This analysis, however, does not appear to be suitable for the cases at hand because of the clear marked status of such examples.

[20] I am grateful to Ora Matushansky (p.c.) for drawing my attention to examples involving such pronouns.

the causative reading of the non-agentive *napominat'* 'remind' in (40b).[21][22]

(37) a. * Vse/mnogoe govorit, čto na ètoj territorii ran'še
everything/a lot.NOM say that on this territory.LOC earlier
žili ljudi.
lived people.NOM
Intended: '{Everything indicates/many things indicate} that earlier people used to live on this territory.'

b. Vse/mnogoe govorit o tom, čto na ètoj
everything/a lot.NOM say about it.LOC that on this
territorii ran'še žili ljudi.
territory.LOC earlier lived people.NOM
'{Everything indicates/many things indicate} that earlier people used to live on this territory.'

(38) a. * Vse/mnogoe namekaet, čto èto ne stalinskij
shape.NOM building.GEN hints that this.NOM not
ampir.
Stalinist Empire.NOM
Intended: '{Everything suggests/many things suggest} that this is not Stalinist architecture.'

b. Vse/mnogoe namekaet na to, čto èto ne
everything/a lot.NOM hints on it.ACC that this.NOM not
stalinskij ampir.
Stalinist Empire.NOM
'{Everything suggests/many things suggest} that this is not Stalinist architecture.'

(39) a. * Vse/mnogoe napominaet, čto na ètom meste
everything/a lot.NOM reminds that on this place.LOC
kogda-to bylo ozero.
sometime was lake.NOM
Intended: '{Everything reminds/many things remind} of the fact that there used to be a lake there.'

[21] Interestinly, *grozit'* 'threaten' seems to disallow such use with both *čto*- and *to,čto*-clauses, as shown in (i).

(i) *? Vse/mnogoe grozilo ej { (tem), čto ee uvoljat}.
everything/a lot.NOM threatened her.DAT it.INS that her.ACC fire
Lit.: 'Everything/many things threatened her with the fact that she will be fired.'

[22] Just as we expect, the examples in (37a)–(39a) with *čto*-clauses lead to relatively stronger unacceptability (indicated by the star), compared to their counterparts with non-quantifier subjects, as we saw above.

b. Vse/mnogoe napominaet o tom, čto na ètom
everything/a lot.NOM reminds about it.LOC that on this
meste kogda-to bylo ozero.
place.LOC sometime was lake.NOM
'{Everything reminds/many things remind} of the fact that there used to be a lake here.'

(40) a. Vse/mnogoe napominaet Maše, čto ona
everything/a lot.NOM reminds Masha.DAT that she.NOM
daleko ot doma.
far from home.GEN
'{Everything reminds/many things remind} Masha that she is far from home.'

b. Vse/mnogoe napominaet Maše o tom, čto
everything/a lot.NOM reminds Masha.DAT about it.LOC that
ona daleko ot doma.
she.NOM far from home.GEN
'{Everything reminds/many things remind} Masha that she is far from home.

The third observation that has to be considered for the account of the agentivity puzzle has to do with the nature of the acceptability judgments concerning examples with the non-agentive verbs taking *čto*-clause complements. With the exception of *grozit'* 'threaten', such examples do not produce strong ungrammaticality of the kind obtained when the same verbs take accusative DP complements. Although speakers generally judge them as significantly degraded compared to the respective examples with *to*,*čto*-clauses, these judgments are not crystal clear, they are subject to certain amount of interspeaker variation and to some extend vary depending on the context.[23] All this implies that the suitable account of the agentivity puzzle has to be sufficiently flexible to accommodate this kind of variability.

To summarize, the account of the agentivity puzzle pattern in Table 3.1 has to explain why the relevant verbs behave the way they do. Such an account must also take into consideration the pattern displayed by verbs like *dokazyvat'* 'prove', the examples with information repository subjects and the variability of the judgments. In the next section I will present such an account.

3.2 The null P proposal

In the Introduction I proposed that *čto*-clauses are subject to the Case requirement, repeated below in (41).

[23] I do not have a clear explanation for why *grozit'* 'threaten' behaves differently.

(41) *The Case requirement of* čto*-clauses*
A *čto*-clause complement has to be licensed by Case. This can be realized in one of the following two ways:
(a) the sentential complement is assigned structural Case;
(b) the sentential complement is licensed by (a possibly silent) P.

According to the Case requirement, *čto*-clauses in "Caseless" positions will be introduced by a null P (P_{CP}). In this section I will propose the licensing conditions for P_{CP}, based on the independently motivated properties of null elements and inspired by Pustejovsky 1995. These conditions will provide the account of the agentivity puzzle.

3.2.1 Pustejovsky 1995

First of all, I will be assuming the well-known principle of Full Interpretation, or FI (Chomsky 1995, Chomsky 1986), according to which every element in the derivation must be legible at each of the interfaces, the PF interface and the conceptual-intentional interface (which relates to the LF side of the grammar). I will be interested in the conceptual-intentional side of the principle, which requires every element to have a (semantic) interpretation. Thus, for example, FI bans true expletives (Chomsky 1995:27) and similarly other elements with no semantic content whatsoever. As a consequence of FI, P_{CP} should have some semantic content, otherwise it would be banned.

The question then is what kind of content P_{CP} has and how it comes about. In order to answer those question, I present a proposal inspired by Pustejovsky's (1995) analysis of sentences like *Mary began the book* and in particular his notion of QUALIA STRUCTURE.

Pustejovsky (1995) discusses sentences like (42a)–(42b) and (43a)–(43b). These sentences involve verbs *begin* and *enjoy* taking a DP complement instead of an expected infinitive/gerund complement and thus appear to have an "elided" verb inside the complement. Pustejovsky notes that in descriptive terms the verbs in such sentences have a special contextual interpretation. For example, *begin* in (42a) would be most probably understood as 'begin reading' or 'begin writing', as indicated in the brackets, but not, say, as 'begin tearing', although this is a possible thing to do to a book.[24] In contrast, in (42b) the same verb would be understood as 'begin drinking'. Similar data obtain for *enjoy*, as shown in (43a)–(43b).

(42) a. Mary began a novel (*reading*, *writing*).
b. John began his second beer (*drinking*).

(43) a. Mary enjoyed the movie (*watching*).

[24] Ramchand (2008:13) observes that 'reading' and 'writing' are not the only possible interpretation for the elided verb in sentences like *Mary began a book* as, for example, in a context where John is a bookbinder the verb can be understood as 'begin binding'. The fact remains, however, that 'reading' and 'writing' would be the most natural interpretations in a out-of-the-blue context.

b. John quite enjoys his morning coffee (*drinking*).

The interpretation of those sentences clearly depends on the context, in particular on the choice of the DP complement.[25] For example, (42a) has the interpretation as it does because 'reading' and 'writing' is what one normally does to a book, and similarly for the other sentences. As Pustejovsky observes, the understanding of those sentences involves "default interpretations of properties and activities associated with objects" (1995:88).

Let's see how Pustejovsky implements this intuition in his analysis of sentences like (42a). First of all, he assumes that verbs like *begin* take complements whose semantic type must be an event (description). The DP complement in (42a) is clearly not of the right type. This does not lead, however, to ill-formedness because the operation of COERCION applies to *a novel* to fix the problem. Leaving the technical details aside, the denotation of *the novel* is changed to that of *reading a novel* or *writing a novel*, thus providing the right semantic type for the complement of *begin*.

In order to explain how the contextual factors force (or encourage) the 'reading'/'writing' interpretation in (42a), Pustejovsky uses the notion of QUALIA STRUCTURE, which is central to his overall theory of lexical semantics. QUALIA STRUCTURE is part of lexical information associated with lexical items, along with ARGUMENT STRUCTURE and EVENT STRUCTURE. Put briefly, *qualia*, tracing back to Aristotle's four causes or modes of explanation, can be thought of as "that set of properties or events associated with a lexical item which best explains what that word means" (Pustejovsky 1995:77). QUALIA STRUCTURE maximally specifies four essential aspects of a word's meaning (or *qualia*).[26] These aspects are referred to as roles and are listed in (44).

(44) a. CONSTITUTIVE: the relation between an object and its constituent parts;
b. FORMAL: that which distinguishes it within a larger domain;
c. TELIC: its purpose and function;
d. AGENTIVE: factors involved in its origin or "bringing it about".
(Pustejovsky 1995:77)

Defined in this way, QUALIA STRUCTURE for *novel* would include 'reading' and 'writing' as its TELIC and AGENTIVE ROLES, respectively. This captures the fact that novels come about by someone writing them and they are meant to be read. The full QUALIA STRUCTURE for *novel*, in a simplified form, is given in (45), from Pustejovsky 1995:78.

[25] Pustejovsky provides examples where the interpretation also depends on the subject, as in (i).

(i) Most commercial pilots prefer New York to Boston. (*landing*, *taking of*)

[26] Not all lexical item have all four aspects in their QUALIA STRUCTURE.

(45)
$$\begin{bmatrix} \textbf{novel} \\ \dots \\ \text{QUALIA} = \begin{bmatrix} \text{CONST} = \textbf{narrative} \\ \text{FORMAL} = \textbf{book} \\ \text{TELIC} = \textbf{reading} \\ \text{AGENTIVE} = \textbf{writing} \end{bmatrix} \end{bmatrix}$$

Now that 'reading' and 'writing' are part of the QUALIA STRUCTURE of *novel*, the coercion operator applied to the DP complement in (42a) can generate an interpretation of the right semantic type.[27]

It is important to realize that the two ingredients of Pustejovsky's (1995)'s account are independent from each other. That is, the way QUALIA STRUCTURE of the complement DP is used to supply the "elided" verbal meaning does not imply that this meaning arises through coercion of the complement DP. Consider a syntactic reinterpretation of Pustejovsky's (1995) account whereby the "elided" verbal meaning is structurally represented as a null V (which is mentioned as a theoretical option in van Riemsdijk 2002). Given FI, the meaning of null V will have to be "recovered".[28] A recovery procedure would have to specify that the meaning of null V is (in the default case) supplied by the QUALIA STRUCTURE of its complement. Thus on a more general level we can expect that the meaning of null elements can be "recovered" by inspecting the QUALIA STRUCTURE of their complements, the assumption I will rely on in my account of P_{CP}.

Before I actually turn to P_{CP}, it is important to briefly touch on the two properties of QUALIA STRUCTURE relevant for the subsequent discussion. The first property concerns the kinds of objects that have QUALIA STRUCTURE. The analysis of sentences like *Mary began a novel* presented above utilized the QUALIA STRUCTURE of nouns. This does not mean, however, that QUALIA STRUCTURE is only defined for individual lexical items. Pustejovsky (1995) applies the notion of QUALIA STRUCTURE to nominal types such as `physical object`, `artifact`, `tool` etc., which comprise a type lattice used in inheritance systems for lexical knowledge. To illustrate, the type `tool` is roughly analyzed as something that has as its TELIC ROLE a relation performed with a tool, whereas `artifact` roughly specifies in its AGENTIVE ROLE the action of making, and so forth. In

[27] There are various constraints on the coercion of the complement DP. Thus, for example, sentences in (ia)–(ib) do not have the intended interpretation indicated in the bracket despite having the suitable QUALIA structures. For an extensive discussion of these constraints see Pustejovsky and Bouillon 1995.

(i) a. * Mary began the highway (*driving on*)
b. * John began the dictionary (*referencing*)

(Pustejovsky and Bouillon 1995)

[28] This is not a place to evaluate whether a null V account of the facts in (42a)–(42b) and (43a)–(43b) is justified. This would of course depend on whether there is syntactic evidence for null V (on this see Pylkkänen 2008).

my account of P_{CP} to be presented below, I will extend the notion of QUALIA STRUCTURE to the type `proposition`, something not explicitly discussed by Pustejovsky (1995) but fully in line with his system. Besides being applicable to nouns and nominal types, the notion of QUALIA STRUCTURE also applies to verbs, a topic Pustejovsky (1995) extensively discusses in his book. Although I will not go into this matter in any detail, I will use it as an illustration when discussing the second property.

The second property concerns the representation of the values of the different roles in the QUALIA STRUCTURE. In (45) the qualia corresponded to the names of predicates, i.e. *reading* or *writing*. This is an oversimplification that I used for expository purposes. In Pustejovsky's (1995) theory arguments are explicitly given to the predicates to identify those arguments across different qualia, the argument structure and event structure. Thus the QUALIA STRUCTURE for *novel* would in fact look something like (46).[29]

(46)

$$\begin{bmatrix} \textbf{novel} \\ \dots \\ \text{QUALIA} = \begin{bmatrix} \text{FORMAL} = \textbf{book(x)} \\ \text{TELIC} = \textbf{read(y,x)} \\ \text{AGENTIVE} = \textbf{write(w,x)} \end{bmatrix} \end{bmatrix}$$

Importantly, argument variables in the qualia of a lexical expression must be "saturated" by the syntax, e.g., by being linked to some position in the syntactic structure[30] This can be illustrated by a verbal QUALIA STRUCTURE. For example, the QUALIA STRUCTURE of the unergative verb *run*, represented in (47), would be satisfied by mapping the argument x to the subject position.

(47)

$$\begin{bmatrix} \textbf{run} \\ \dots \\ \text{QUALIA} = \begin{bmatrix} \text{AGENTIVE} = \textbf{run(x)} \\ \dots \end{bmatrix} \end{bmatrix}$$

The details of the mapping of verbal qualia will not be very relevant to the account of P_{CP} so I will leave this matter as that, referring the interested reader to Pustejovsky 1995. The important thing is the very fact that qualia arguments are subject to the "saturation", or linking, requirement. I will make use of this requirement in formulating the licensing condition on P_{CP}.

3.2.2 The Interpretation of P_{CP}

Let's return to P_{CP}. I argued above that due to Full Interpretation the content of P_{CP} will have to be "recovered". I propose that the content of P_{CP} is "recovered" due to a general principle in (48).

[29] For simplicity, I omit the event argument here and elsewhere.

[30] The full definition of qualia saturation is given in (i).

(48) *The principle of default interpretation*
The content of a null lexical head is provided by a predicate in the QUALIA STRUCTURE of the complement of this head.

We already saw the application of this principle when discussing a possible syntactic reinterpretation of Pustejovsky's (1995) account in the previous section whereby the content of the null V in the complement of *begin* was filled in by the predicates *read/write* from the QUALIA STRUCTURE of *novel*.[31] Let's see how the principle in (48) can recover the meaning of P_{CP}.

First of all, recall that the complement of P_{CP}, as I argued, is a DP headed by a D_0 with a *čto*-clause complement. I will assume that the type of a DP is inherited from the type of its complement. Taking the type of a *čto*-clause to be `proposition`, the DP complement of P_{CP} will also be `proposition` (note that `proposition` is a possible nominal type in Pustejovsky 1995).

The next question is how we can define the QUALIA STRUCTURE of the type `proposition`. Although Pustejovsky (1995) does not explicitly define it, we can reconstruct the idea guided by the logic of his system. To do that, I would like to draw an analogy between `proposition` and the **novel**, whose QUALIA STRUCTURE we saw in (46). In the type lattice that Pustejovsky (1995) uses **novel** inherits **book**, which inherits, albeit in a less straightforward way, the type `information`.[32] The type `information` in its turn inherits `proposition`. So the connection between **novel** and `proposition` is real. Let's extend the analogy to the QUALIA STRUCTURE. As we saw, in terms of its QUALIA STRUCTURE, **novel** is something that comes about by someone writing it and whose function is undergoing the activity of reading. Along similar lines, we can view `proposition` as something that comes about by someone uttering it and whose possible result state is being held by a holder. The QUALIA STRUCTURE of `proposition` can then be represented as in (49).

(49)

$$\begin{bmatrix} \textbf{proposition} \\ \dots \\ \text{QUALIA} = \begin{bmatrix} \text{FORMAL} = \text{x} \\ \text{TELIC} = \textbf{hold(x,p)} \\ \text{AGENTIVE} = \textbf{utter(y,p)} \end{bmatrix} \end{bmatrix}$$

Now that QUALIA STRUCTURE of `proposition` includes **utter(w,x)** and **hold(y,x)** as its values the content of P_{CP} can be filled in exactly by these predicates, in

[31] Some independent motivation for the principle in (48) might come from the properties of the (verbal) complementizer *gi-* in Kalmyk, which I discuss in Knyazev 2015. I analyze *gi-* as introduced by a null V, suggesting that the content of that null V is recovered along the lines of a rule like (48).

[32] More precisely, **book** belongs to a complex type made by Cartesian product of type `information` and `physical object`, an instance of the so-called dotted object (see Pustejovsky 1995 for details).

accordance with the principle in (48). This is formulated in (50).[33]

(50) *The interpretation of* P_{CP}
P_{CP} is interpreted as a relation whose content is provided by the predicates **utter** or **hold**.

One may wonder whether predicates like 'utter' and 'hold', which are normally realized by verbs, can provide appropriate interpretation to an element of the class of prepositions such as P_{CP}. I now will show that this does not create a problem.

First of all, despite the presence of purely functional prepositions (like the English *of* marking the nominal complement of N and V), many instances of Ps, especially of the locative or directional variety, have been argued to be semantically contentful. For example, in sentences like (51a)–(51b) and (52a)–(52b), from Reinhart and Reuland 1993, the preposition intuitively denotes a relation between the internal argument and the object of the preposition. Thus, for example, a sentence like (51b) entails the carpet being over Max at some point, and similarly for other sentences.

(51) a. Max rolled the carpet_2 over itself_2/*it_2.
b. Max_1, rolled the carpet over himself_1/him_1.

(52) a. Max put the book next to him/himself.
b. Max pulled the cart towards him/himself.

In their discussion of these sentences, Reinhart and Reuland (1993) provide a convincing argument for the relational analysis of P from the perspective of binding, especially their Condition B. By analyzing the P in (51a) as a semantic predicate and thus treating the internal argument of the verb (*carpet*) and the object of P in (51a) as co-arguments of this predicate, Reinhart and Reuland derive (from their condition B) the fact the object of P has to be an anaphor; cf. (51b), where the co-indexed DPs are not co-arguments and hence do not require an anaphoric expression.

Importantly, despite treating the P in (51a)–(51b) as a semantic predicate denoting a two-place relation predicated of the internal argument, Reinhart and Reuland (1993) reject the idea that this argument is the subject of P syntactically. In other words, they reject a small clause analysis of the PP. Their argument comes from the fact that an anaphor in the object position of P can "skip" the internal argument as shown in (51b) and also in (52a)–(52b). This crucially is not possible in *bona fide* small clauses, as shown in (53). Reinhart and Reuland thus conclude that the locative/directional Ps do not have subjects in general. This will be one of the assumptions that I will be making in formulating the licensing condition of P_{CP}.

[33] As we will see below, the QUALIA values **utter** and **hold** actually do not exactly correspond in meaning to the respective English verbs but rather should be viewed as more abstract relations closer to 'bring about (the proposition)' and 'entertain (the proposition)'.

(53) Lucie$_1$ heard [Max praise her$_1$/*herself$_1$].

Returning to P_{CP}, we now see that there is no obstacle in treating P_{CP} as denoting a relation and thus being in principle compatible with the relational meaning of the QUALIA values of its propositional complement.

3.2.3 The "control" of the first argument

Under the proposal in (50), P_{CP} gets interpreted as a two-place relation R(x,y) whose content is provided by predicates **utter** and **hold**. Now the question is how the two argument positions of P_{CP} are saturated. Clearly, one of those is saturated by the P complement. The saturation of the other role is less straightforward. I will first assume with Reinhart and Reuland (1993) that Ps do not have syntactic subjects, as I discussed above. As a result, this role has to be "controlled" by one of the arguments of the predicate. Because of the content of the P_{CP}-relation, it is natural to expect that the controller argument has to be (a) the Agent of the communicative act bringing about the propositional content, i.e. the "utterer", in case P_{CP} gets interpreted as **utter**; or (b) the holder of the propositional attitude entertaining the propositional content, i.e. the "holder" in case P_{CP} gets interpreted as **hold**. Whether or not such construal is possible will mostly depend on the lexical semantics of the predicate but also in certain cases on the properties of the linguistic context (see footnote 36). This is formulated in (54).[34]

(54) *The licensing condition of P_{CP}*
In order for P_{CP} to be licensed, one of the arguments of the predicate taking P_{CP} as its complement has to be construed as the utterer or the holder of the proposition expressed by the complement of P_{CP} by virtue of the semantics of the predicate and the linguistic context.

The licensing condition for P_{CP} is naturally satisfied with speech act verbs, subject Experiencer verbs and object Experiencer verbs that require P_{CP}, where the subject or the object argument easily lends itself to the utterer/holder construal; I return to these cases below. The condition can also be satisfied with other verbs that are not, strictly speaking, speech act or subject/object Experiencer verbs but which nonetheless license (in certain cases) the utterer/holder construal of one of the arguments. I illustrate these verbs with *plakat'* 'cry' and *pugat'* 'frighten' in (54a)–(54b).[35] Other examples are *smejat'sja* 'laugh', *obradovat'* 'cheer up', etc. As is shown by the translation, these verbs are contextually interpreted as speech act verbs.[36] Whether a given verb allows such

[34] Note that the licensing condition in (54) is semantic in nature as the "controller" of P_{CP} is lexically determined rather than calculated on the basis of the syntactic distance to P_{CP}. See also footnote 71 below. I am grateful to Ora Matushansky (p.c.) for raising this issue.

[35] I discuss *pugat'* 'frighten' in section 3.5.2 in some detail.

[36] With many of such verbs the licensing of P_{CP} also depends on the aspectual properties of the verb and other parameters of the context. For example, *plakat'* 'cry' disallows a *čto*-clause

a use is largely a matter of its idiosyncratic lexical properties (for example, *ulybat'sja* 'smile', *rassmešit'* 'make laugh' do not allow P_{CP}). As has been shown (see, e.g. Traugott 1989) speech act verbs quite generally develop their speech act meanings from non-speech act meanings in a process of lexical change, which is obviously not fully predictable.

(55) a. Maša plačet, čto ej ne kupili moroženoe.
Masha.NOM cries that her.DAT not bought ice-cream.ACC
'Masha complains that they didn't buy ice cream for her.'

b. Vanja pugaet ee, čto v ètom rajone nebezopasno.
Vanya.NOM frightens her.ACC that in this neighborhood.LOC unsafe
'Vanya warns her that this neighborhood was unsafe.'

In contrast, verbs none of whose arguments can be construed as the utterer or holder of the proposition expressed by the sentential complement, will not satisfy the licensing condition of P_{CP}. It is the unacceptability of *čto*-clauses with these verbs that the P_{CP} proposal is meant to account for. These are precisely the cases described in the agentivity puzzle in Table 3.1, which I will discuss in section 3.4, see also section 3.5 for some other verbs.

The situation in which a *čto*-clause is disallowed because of the nonlicensing of P_{CP} requires some comment. The licensing condition on *čto*-clauses (the Case requirement), which forces the presence of P_{CP} in "Caseless" positions, is a purely structural condition. Whenever it is not satisfied due to the lack of P_{CP}, we have essentially a violation of the Case Filter. In contrast, the licensing condition on P_{CP} is a semantic condition. When it is violated, this is due to the clash between the semantics of the verb and its arguments and the interpretation imposed on these arguments by P_{CP}. So in a situation where P_{CP} is required but not licensed we will have a conflict between the requirements of a *čto*-clause and the requirements of P_{CP}. It is reasonable to expect that this conflict will always be resolved, as it were, to the advantage of the requirements of the *čto*-clause, assuming that structural conditions such as the Case Filter are strict and non-negotiable. Consequently, the presence of P_{CP} will be forced "blindly" without looking ahead and ensuring that it can be licensed in the

complement with a perfective prefix with an inchoative meaning, as in (ia), and *pugat'* 'frighten' disallows with a perfective prefix with a completive meaning, as in (ib). I leave the investigation of the factors influencing the licensing of P_{CP} in such cases for future research.

(i) a. ?* Maša za-plakala, čto ej ne kupili moroženoe.
Masha.NOM PERF-cried that her.DAT not bought ice-cream.ACC
Intended: 'Masha started complaining that they didn't buy ice cream for her.'

b. ?* Vanja is-pugal ee, čto v ètom rajone nebezopasno.
Vanja PERF-frightened her.ACC that in this neighborhood.LOC unsafe
Intended: 'Vanya warned her that this neighborhood was unsafe.'

structure. As a result, violations of the Case requirement by *čto*-clauses in "Caseless" positions (in which PPs can appear) will in fact be violations of the licensing condition of P_{CP}, which is semantic in nature. Thus such violations will not be strictly syntactic and will potentially allow for some flexibility of the acceptability judgments (see also section 3.4, where I discuss concrete examples).

Before I proceed to the agentivity puzzle, I will illustrate how the licensing condition in (54) works in three prominent classes of verbs that require P_{CP}, and in the next section present a formal implementation of the proposed analysis.

Firstly, there are speech act verbs where the P_{CP} is controlled by the Agent. These are verbs like *nastaivat'* (–, *na*) 'insist', *žalovat'sja* (Dat, *na*) 'complain', *predupreždat'* (Acc, *o*) 'warn', given in (56a)–(56c) and many others (in parentheses I indicate whether and how the addressee is realized and how the content argument is realized). All of these verbs fail to realize their content argument as an (accusative) DP, hence their clausal complements will be introduced by P_{CP} due to the Case requirement of *čto*-clauses.

(56) a. Vanya nastaivaet, {čto žit' v Moskve deševo / na
Vanya.NOM insists that to live in Moscow.LOC cheap on
ètom / * èto}.
this.LOC this.ACC
'Vanya insists {that it is cheap to live in Moscow/on this}.'

b. Maša mne žaluetsja, {čto u nee net vremeni / na
Masha.NOM me.DAT complains that at her.GEN no time.GEN on
èto / * èto}.
this.ACC this.ACC
'Masha complains to me {that she has no time/about this}.'

c. Sereža menja predupreždaet, {čto seminar
Serezha.NOM me.ACC warns that seminar.NOM
otmenjaetsja / ob ètom / * èto}.
is cancelled about this.LOC this.ACC
'Serezha warns me {that the seminar is cancelled/about this}'

Given that the Agent argument of these verbs is interpreted as the utterer of the proposition realized by the sentential complement, the content of P_{CP} will be provided by the **utter** relation predicated of the Agent argument.

Secondly, we have verbs where P_{CP} is controlled by the subject experiencer. These are comprised of various kinds of propositional attitude verbs including (using the terminology in Anand and Hacquard 2014) doxastic predicates like *verit'* (*v*) 'believe' (also *uveren* (*v*) 'certain'), the dubitative *somnevat'sja* (*v*) 'doubt', emotive doxastic verbs like *nadejat'sja* 'hope' (also *rasščityvat'* (*na*) 'expect') and emotive factive predicates like *sožalet'* (*o*) 'regret' (also *rad* (DAT) 'glad'). These are illustrated in (57a)–(57d).

(57) a. Sereža verit, { čto èto vozmožno / v èto / *
Serezha.NOM believes that this.NOM possible in this.ACC
èto}.
this.ACC
'Serezha believes {that this is possible/this}.'

b. Vanja somnevaetsja, { čto ona prava / v ètom / *
Vanya.NOM doubts that she.NOM right in this.LOC
èto}.
this.ACC
'Vanya doubts {that she is right/this}.'

c. Maša nadeetsja, { čto u nee budet mnogo
Masha.NOM hopes that at her.GEN will be a lot
svobodnogo vremeni / na èto / * èto}.
free time.GEN on this.ACC this.ACC
'Masha hopes {that she will have a lot of free time/for this}.'

d. Vanja sožaleet, { čto kupil ètu knigu / ob
Vanya.NOM regrets that bought this book.ACC about
ètom / * èto}.
this.LOC this.ACC
'Vanya regrets {that he has bought this book/this}.'

In these cases the P_{CP} gets interpreted as a relation whose content is provided by the **hold** relation predicated of the subject experiencer. This is most easily seen for doxastic verbs like *verit'* (*v*) 'believe', where the subject is the holder of the proposition realized by the sentential complement. The same analysis can be extended to other propositional attitude predicates under certain plausible assumptions. For example, the dubitative *somnevat'sja* (*v*) 'doubt' can be analyzed as 'believe' with the internal negation (scoping above P_{CP}). In their turn, emotive doxastic verbs like *nadejat'sja* 'hope' have been argued to entail 'uncertain about P' (see Anand and Hacquard 2014), hence they can also be argued to involve the **hold** relation predicated of the experiencer. Similarly, emotive factive have been argued to entail 'believe P' on the part of the subject (see, again, Anand and Hacquard 2014).

Finally, P_{CP} can also be controlled by the object experiencer. This option is instantiated by just a few verbs, but it will be very important since I will use it for my account of *napominat'* 'remind' to be presented in section 3.4.3. It can be illustrated by the verb *ubedit'* (Acc, *o*) 'convince', given in (58).[37]

[37] In (58) I use the non-agentive variant of the verb. As for the agentive variant, illustrated in (i), it will have the same analysis as the non-agentive variant.

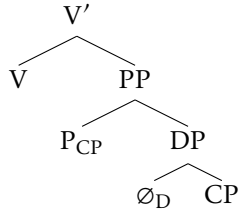
(i) Maša ubedila Vanju, { čto ona byla prava / v ètom / * èto}.
Masha.NOM convinces Vanya.ACC that she.NOM was right in this.ACC this.ACC
'Masha convinced Vanya {that she is right / of this}.'

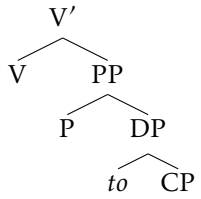
(58) Èto ubedilo Vanju, { čto Maša byla prava / v
this.NOM convinces Vanya.ACC that Masha.NOM was right in
ètom / * ètо}
this.ACC this.ACC
'This convinced Vanya {that Masha was right / of this fact}.'.

Ubedit' 'convince' has the paraphrase 'cause X to believe P', which suggests that the object is interpreted as the holder of the proposition realized by the sentential complement. As a result I will assume that the P_{CP} is interpreted as the **hold** relation predicated of the object experiencer.

3.2.4 A formal implementation

In this section I will propose an implementation for the "control" of P_{CP}. First of all, recall that under minimal assumptions, P_{CP} does not have any special properties distinguishing it from the corresponding overt P (introducing *to*,*čto*-clause complements) apart from the lack of phonetic matrix. Consequently, we expect that P_{CP} will have the same structural position as the corresponding overt P, namely, the complement position, which is illustrated by the structure in (59); cf. the structure of overt P in (60).

(59)


(60)


Obviously, in order to implement the P_{CP} proposal, we need some theory about how the structures involving PP-complements of V are interpreted. This is especially important in view of the fact that the proposal hinges on the idea that P_{CP} gets a particular semantic interpretation (comprised of the relations provided by the QUALIA structure of its complement), so we may wonder how this interpretation gets integrated into the meaning of the verb.

To do so, I will first adopt Neeleman's (1997) proposal according to which the head of the PP complement of V undergoes abstract incorporation to V. As a result of this operation, verb and preposition are combined into a complex predicate. Neeleman's proposal is based on the insight that in examples like (61a) the θ-relation borne by the argument is jointly contributed by V and P, accounting for their semantic difference with examples like (61b), and the additional assumption that θ-assignment requires sisterhood.

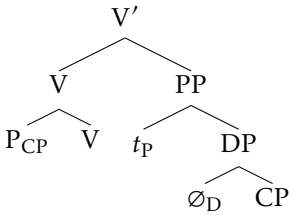
(61) a. John has always believed in Bill's honesty.
b. John has always believed Bill's promises.

Adopting Neeleman's (1997) proposal I will assume that P_{CP} undergoes head movement to V, adjoins to it and thus forms a complex P-V predicate, as formulated in (62).

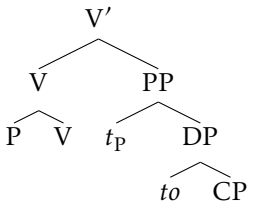
(62) P_{CP} undergoes head movement to the immediately dominating V.

Applying this proposal to the cases at hand, we will get the following adjunction structures for P_{CP} and overt P, given in (63) and (64).

(63)



(64)



As for the interpretation of the adjunction structures such as (63) and (64), I will follow Chomsky (1995 and subsequent work) in assuming that adjunction structures (in his terminology Pair-merge) are interpreted as modification, canonically amounting to the operation of set intersection (see Chomsky 2001 and also Reuland 2011:224). Below I will illustrate how the structure involving P_{CP} in (63) gets its interpretation on the basis of a concrete example.

The interpretation of the structures with overt Ps in (64) should not concern us much. One can assume any possible analysis available within the present-day theoretical framework. For the present proposal to work, the only crucial thing is that overt Ps does not have to be licensed by the "semantic recovery" principle in (48) and the QUALIA structure of their complement. This an obvious consequence of the fact that they are non-null and have some lexical content associated with them.[38] The same analysis should carry over to covert Ps introducing oblique cases under the P_{obl} analysis, which carry the semantic content associated with the oblique cases (see section 1.3.2 from the Introduction).

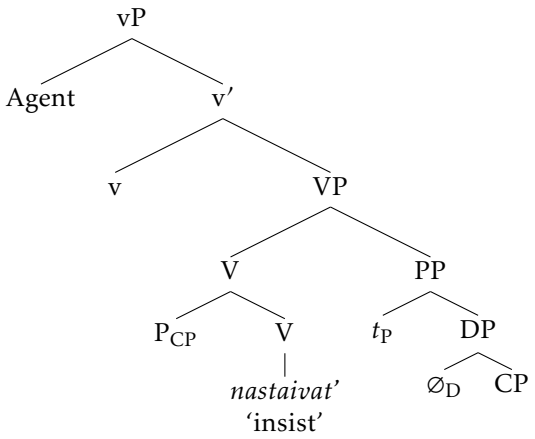
Let's apply the present proposal to examples like (56a). Under the adjunction analysis they will have the structure in (65). From the semantic point of view, adjoining P_{CP} to V ('insist') intuitively amounts to intersecting the *x insist on y* relation with the *x utter y* relation yielding the *x insist on y and x utter y* relation. I will formalize this with a neo-Davidsonian association of arguments in conceptual structure (as, e.g., in Pylkkänen 2008:6).[39] I will take the mean-

[38] See, for example, Botwinik-Rotem's (2004), who argues that Ps in PP-complements, although non-relational in the general case, have some residual semantic content (rendering them legible at conceptual-intentional interface in compliance with Full Interpretation).

[39] Although I will follow the standard practice of treating the external argument as introduced by a separate head (v), I will assume that the association of the external argument (as well as other arguments) is neo-Davidsonian in the syntax. That is, I will treat the external argument as a true argument of the verb, contra Kratzer 1996 and Pylkkänen 2008. The same will apply to the addressee argument introduced by the Appl head, see below. Now this poses the question about

ing of the verb to be as in (66).[40] The semantic effect of the adjunction of P_{CP} can be represented as in (67). I assume that P_{CP} translates into a free relation R, whose content is supplied by the context. In this example the P_{CP}-relation is interpreted as **utter** and predicated of the Agent argument of the verb.

(65)



(66) *nastaivat'* 'insist':
$\lambda y.\lambda x.\lambda e.\, insist(e) \,\&\, Agent(e,x) \,\&\, Theme(e,y)$

(67) P_{CP} + *nastaivat* 'insist':
$\lambda y.\lambda x.\lambda e.\, insist(e) \,\&\, Agent(e,x) \,\&\, Theme(e,y) \,\&\, R(x,y) \,\&$
$\&\, R = \mathbf{utter}$

In (68)–(70) I give the analysis for *žalovat'sja* 'complain', which has an additional optional argument (see (56b)). It is essentially the same as for the previous verb.

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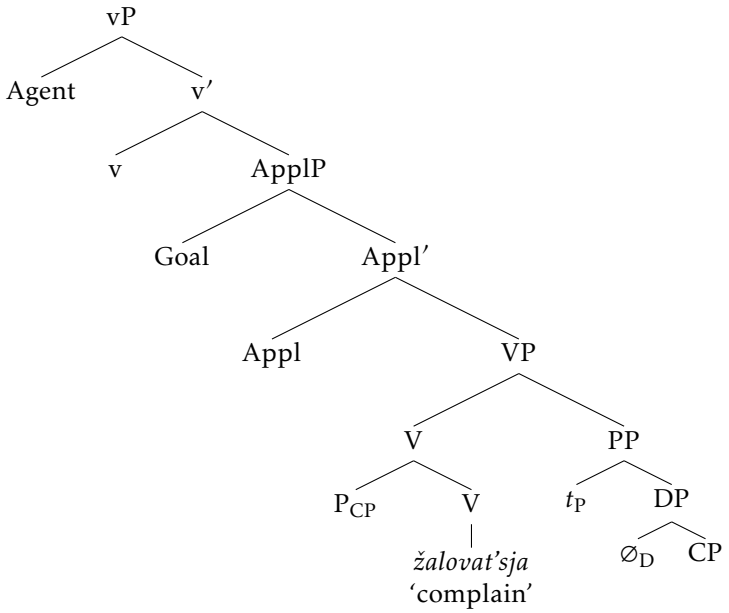
the semantic nature of the v and Appl head, specifically how they satisfy Full Interpretation if they are do not encode the Agent or Goal/Experiencer relation. One way of looking at this problem is to assume that are partial identity functions, which is the standard way of analyzing meaningful features (see Heim and Kratzer 1998). Those functions will be defined only for those individuals that have the relevant θ-role.

[40] For expository purposes, here I use the traditional labels for the θ-relations. In the account to be presented in section 3.4, I use the Theta System θ-clusters.

(68)



(69) *žalovat'sja* 'complain':
$\lambda z.\lambda y.\lambda x.\lambda e.\, complain(e) \,\&\, Agent(e,x) \,\&\, Goal(e,y) \,\&\, Theme(e,z)$

(70) P_{CP} + *žalovat'sja* 'complain' (the adjunction structure):
$\lambda z.\lambda y.\lambda x.\lambda e.\, complain(e) \,\&\, Agent(e,x) \,\&\, Goal(e,y) \,\&$
$\&\, Theme(e,z) \,\&\, R(x,z) \,\&\, R = \mathbf{utter}$

Now turning to subject Experiencer verbs like *verit'* 'believe' in (57a), given the meaning of the verb as in (71), the semantic effect of the P_{CP}-adjunction will be as in (72). As we can see, here R is predicated of the Experiencer argument and its meaning is supplied by the **hold** relation. A similar effect will be obtained with emotive factive predicates like *sožalet'* 'regret'. I omit the tree since it will be essentially the same as in (65).

(71) *verit'* 'believe':
$\lambda y.\lambda x.\lambda e.\, believe(e) \,\&\, Experiencer(e,x) \,\&\, Theme(e,y)$

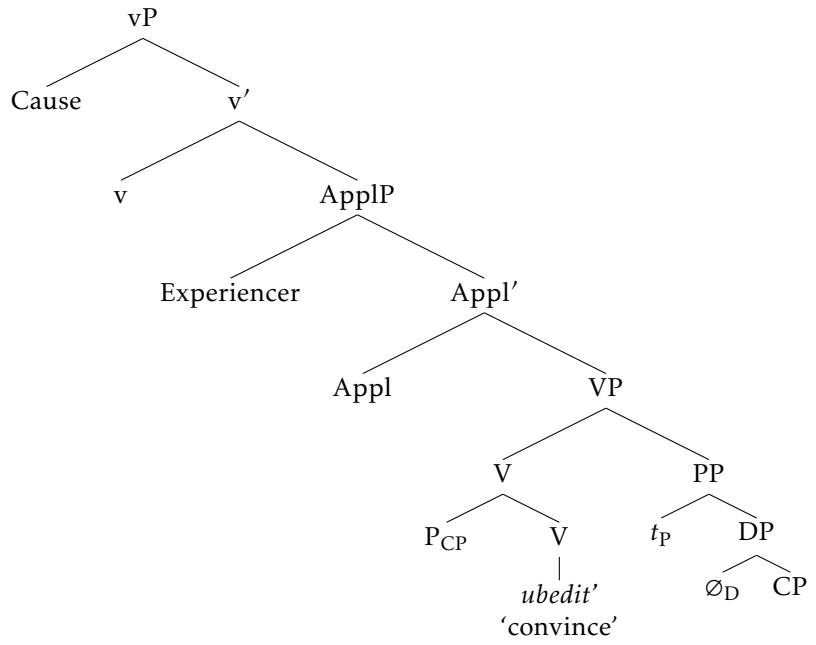
(72) P_{CP} + *verit'* 'believe' (the adjunction structure):
$\lambda y.\lambda x.\lambda e.\, believe(e) \,\&\, Experiencer(e,x) \,\&\, Theme(e,y) \,\&$
$\&\, R(x,y) \,\&\, R = \mathbf{hold}$

The case of the dubitative *somnevat'sja* 'doubt' and emotive doxastics like *nadejat'sja* 'hope' (see (57b)–(57c)) is not as straightforward. To accommodate these cases, I will have to assume that these verbs have some internal syntactic structure at the level of LF in the manner of Hale and Keyser 1993. In particular, they will have to include some doxastic predicate in their underlying

structural representation along the lines of *not certain* and *not certain + want*, respectively.[41] The interpretation will then proceed as in the case of 'believe' in (72).

Finally, let's turn to *ubedit'* 'convince', where P_{CP} is controlled by the object experiencer.[42] I assume that the verb will have the structure in (73).[43] I will represent the meaning of the verb as in (74). In accordance with the semantic characterization of the verb proposed above, the P_{CP}-adjunction will give rise to the interpretation in (75).

(73)



(74) *ubedit'* 'convince':
$\lambda z.\lambda y.\lambda x.\lambda e.\ convince(e) \,\&\, Cause(e,x) \,\&\, Experiencer(e,y) \,\&$
$\&\ Theme(e,z)$

(75) P_{CP} + *ubedit'* 'convince':
$\lambda z.\lambda y.\lambda x.\lambda e.\ convince(e) \,\&\, Cause(e,x) \,\&\, Experiencer(e,y) \,\&$
$\&\ Theme(e,z) \,\&\, R(y,z) \,\&\, R = \mathbf{hold}$

[41] I will not try to work out the exact details, leaving the matter for another occasion.

[42] Again I will use the non-agentive variant, the analysis can be easily carried over to the agentive one.

[43] The other possibility is to analyze this verb and other such verbs as involving two predicate heads corresponding to the two separate event – Pylkkänen's (2008) Cause head for the causing event and the V head for result state (of believing) with the interpretation in (i). For simplicity's sake, however, I will assume the analysis in (75a)–(75b).

(i) $\lambda z.\lambda y.\lambda x.\lambda e.\ (\exists e')\, CAUSE(e,e') \,\&\, Cause(e,x) \,\&\, believe(e') \,\&\, Experiencer(e',y) \,\&\, Theme(e',z)$

This concludes the discussion of the P_{CP} proposal. To summarize, P_{CP} is a null P with a relational content provided by the QUALIA STRUCTURE of its propositional complement due to the principle in (48). The relational content is specified by the relations **utter** and **hold**, which, by assumption, comprise the QUALIA STRUCTURE of `proposition`. These relations get predicated of the appropriate argument of the predicate head selecting P_{CP} in accordance with the licensing condition in (54). The predication mechanism is implemented through head movement of P_{CP} to the immediately dominating head whose semantic effect consists in modifying the content of this head by intersection.

Before I move on to the account of the agentivity puzzle in (1), I will introduce the framework within which I will present my analysis of the agentive vs. non-agentive alternation.

3.2.5 Ruling out a lexical account

The argument for the Case requirement of *čto*-clauses, which I am presenting in this chapter, is based on the claim that the Case requirement of *čto*-clauses is the best explanation of the agentivity puzzle. To make this argument convincing, it is crucial to ensure that a simpler account cannot derive the relevant data.

One obvious alternative is that the relevant non-agentive verbs fail to take *čto*-clauses due to their lexical (c-selectional) properties, namely by virtue of not selecting the syntactic category of *čto*-clauses (see Grimshaw 1979, Pesetsky 1982, see also Alrenga 2005 for some recent discussion).[44] I will now show that this is highly implausible.

The crucial property of the pattern described in Table 3.1 is is that for every non-agentive verb that disallows a *čto*-clause, there is a corresponding agentive verb that allows it. If one were to argue that the relevant non-agentive verbs disallow a *čto*-clause simply because of their idiosyncratic lexical properties, one would have to assume that the agentive and the corresponding non-agentive verbs are essentially different lexical entries with different selectional properties (despite being etymologically related). In this case the unacceptability of *čto*-clause with the relevant non-agentive verbs could be explained away as a matter of their lexical quirk. This assumption, however, is clearly counterintuitive and stipulative.

The minimal assumption and the one that is certainly more interesting to explore, is that the agentive and the non-agentive verbs belong to the same lexical entry. This would entail that they have identical selectional properties. Consequently, given that the agentive verbs select *čto*-clauses, we will also expect the corresponding non-agentive one to do so as well. This analysis is already supported by the fact that both the agentive and the corresponding non-agentive verbs both select for *to*,*čto*-clauses with the respective P/oblique marking (as we can see in Table 3.1). Indeed, under a "distinct item" account,

[44] Pesetsky (1982; 1991; 1993) argues for the elimination of c-selection as an independent module of the grammar. For the opposite view see Rothstein 1992, Odijk 1997 and Alrenga 2005.

it comes out as a surprise that the two purportedly independent lexical entries should share the selection for *to*,*čto*-clauses without sharing the selection for *čto*-clauses. In contrast, if these verbs are treated as the same lexical entry, we expect selection for both *to*,*čto*-clauses and *čto*-clauses to be uniform.

As good as it may be, however, the challenge is to show how the agentive and the corresponding non-agentive verbs, which apparently have quite distinct meanings, could belong to the same lexical entries. In order to address this question, I will propose a concrete account of the semantic properties of the relevant verbs. My account will largely follow Kissine's (2010) proposal about the semantics of non-illocutionary uses of speech act verbs.[45] It will be implemented within the Theta System, a theory of argument structure developed by Reinhart (2002; To appear). This theory will provide a simple and elegant way to meet the desiderata of a unified account of the agentive and the corresponding non-agentive verbs.

3.3 The framework for the account: the Theta System

In a nutshell, Reinhart's (2002; To appear) Theta System is a theory about how verbal thematic structure is represented. The Theta System provides a way of encoding, or packing, conceptual information associated with verbs for the purposes of further syntactic derivations in which these verbs enter. Thus it serves as an interface between the system of concepts and the computational system (syntax). According to Reinhart, the Theta System consists of three main ingredients, which are given in (76).

(76) a. Lexical entries, which are coded concepts, with formal features defining the θ-relations of verb-entries.
b. A set of arity operations on lexical entries, which may generate new entries, or just new options of realization.
c. Marking procedures, which 'prepare' a verb entry for syntactic derivations: assign an ACC(usative) feature to the verb in the relevant cases, and determine merging properties of arguments (technically obtained by indices).

(Reinhart 2002:229)

Perhaps the most crucial property of the Theta System is that θ-roles are not viewed as primitive but rather are expressed in terms of two binary θ-features, namely, +/–c = *Cause change* and +/–m = *Mental state*.[46] A /+c feature is associated with a role perceived as a sufficient condition for the event to

[45] I am very grateful to Marijana Marelj for pointing out this reference to me and for discussing with me the details of the proposed account.

[46] Henceforth these features whether with or without values are notated as /c, /+c, etc. Clusters involving particular features and/or particular values are notated as [/+c], [/–c], [–], etc.

happen. A /+m feature is associated with a mental state of the participant. Note that the [/+m] feature entails animacy but not conversely. As Reinhart (2002:279) puts it, "an animate patient of an event (say someone who got kissed) may have all kinds of mental-states associated with that event. But the linguistic coding does not consider these mental-states relevant for the argument structure".

θ-roles then are clusters made of either both features +/–c and +/–m (binary clusters) or just one of them, the other being unspecified for (unary cluster). In sum, there are eight different θ-clusters, given in (77).[47] These roughly correspond to the traditional θ-roles and labeled accordingly.

(77) θ-clusters[48]

[+c+m]	Agent
[+c–m]	Instrument
[–c+m]	Experiencer
[–c–m]	Theme/Patient
[+c]	Cause
[+m]	Sentient
[–c]	Goal/Benefactor
[–m]	Subject Matter/Locative Source

The notion of unary clusters will be particularly important for the proposed account of the agentivity puzzle and merits some comments. By definition, unary clusters are compatible with either value of the unspecified feature. This means, for example, that an argument corresponding to the [+c] cluster can be interpreted as Agent ([+c+m]), corresponding to the positive specification of its unspecified [/m] feature. It can also be interpreted as an Instrument, corresponding to the negative specification of this feature.[49] This is shown in (78a).

(78) {Max / the key} opened the window.

In a similar vein, [–c] arguments, which normally realize Goals, as in (79a), are compatible with the Experiencer interpretation ([–c+m]), as in (79b), corresponding to the positive specification of its unspecified [/m] feature.

(79) a. Max sent a book to Lucy.
b. The idea appealed to Max.

[47] Marelj (2004) proposes that there is also a [] cluster unspecified for both /c and /m feature and having the Arb(itrary) interpretation.

[48] According to Reinhart (2002), candidates for the Sentient cluster ([+m]) are the Experiencer subjects of verbs like *love*, *know*, *believe*, which unlike the "true" ([–c+m]) Experiencer are always merged externally; see below for linking rules.

[49] Marelj (2004) argues that unary clusters become fully specified (via expansion) at the level of interpretation (the C-I interface) by virtue of the principle of Full Interpretation of Thematic Roles (FITR), which she proposes.

Let's turn to the second important property of the Theta System. As one can already note, the presence of unary θ-clusters entails that a verb that displays thematic variability (such as having an Agent or a non-agentive causer as a subject) has one underlying thematic structure. This is an instantiation of the Lexicon Uniformity Principle of the Theta System, formulated in (80).

(80) *Lexicon Uniformity Principle*
Each verb-concept corresponds to one lexical entry with one thematic structure. → The various thematic forms of a given verb are derived by lexicon-operations from one thematic structure.
(Reinhart To appear)

According to this principle, argument structure/voice alternations displayed by a given verb are the result of some arity operation that applies to the thematic structure of the underlying verb-concept (corresponding to this verb) to yield the thematic structure of the derived alternant. For example, the intransitive *open* as in *The door opened* ([–c–m]) would be derived from the transitive *open* ([+c] [–c–m]) by the Expletivization operation, which reduces the external θ-role ([+c]). Other common operations include Saturation (for deriving passives), Reflexivization (i.e. Bundling of θ-clusters), Causativization.

The third important tenet of the Theta Sysem relates to argument realization (property (76c)). In the Theta System there is a clear link between the thematic makeup of a lexical entry and how its arguments are going to be expressed. This is captured by the marking principles, which I give in (81)–(82), from Reinhart 2002:246-247.

(81) Lexicon marking
Given an n-place verb-entry, n > 1,
   a. Mark a [–] cluster with index 2.
   b. Mark a [+] cluster with index 1.
   c. If the entry includes both a [+] cluster and a fully specified cluster [/a /–c], mark the verb with the ACC feature.

(82) CS merging instructions
   a. An argument realizing a cluster marked 2 merges internally;
   b. An argument with a cluster marked 1 merges externally.
   c. When nothing rules this out, merge externally.

The marking principles in (81a)–(81b) ensure that [+] clusters, i.e. Agent ([+c+m]), Cause ([+c]) and Sentient ([+m]), always merge as external arguments, whereas [–] clusters, i.e. Theme ([–c–m]), Goal ([–c]) and Subject Matter ([–m]), merge internally.[50] As for the Experiencer ([–c+m]) and Instrument ([+c–m])

[50] More precisely, [–c–m] arguments are merged internally only in two-place verbs. In one-place verbs including the so-called verbs of emission such as *glow* they will be merged externally, according to the conditions in (81)–(82).

clusters, they are neither [–] or [+] and hence are not assigned any index by (81). This entails that they may in principle be merged either externally or internally.

Of particular importance to us is the marking principle in (81c), which essentially states that verbs that have a [+c+m] (Agent), [+c] (Cause) or [+m] (Sentient) external argument and a [–c–m] (Theme) or an [–c+m] (Experiencer) argument will have the accusative-assigning property. This principle entails that verbs that select arguments corresponding to other clusters (e.g. [–m] (Subject Matter) or [+c–m] (Instrument)) will not assign accusative Case and hence such objects will be typically realized as Oblique/PP.[51] As we will see below, this view provides the basis for an explanation of why some verbs but not others (e.g. *govorit'* 'say' vs. *grozit'* 'threaten') have the accusative-assigning property.[52]

Having introduced the Theta System as the framework for the analysis of argument structure of the alternating verb, we can finally turn to the account of the agentivity puzzle.

3.4 The account of the agentivity puzzle

Equipped with the proposal about P_{CP} and the framework for analyzing argument structure, I will now show how this proposal accounts for the agentivity puzzle. The account will be presented on a verb by verb basis because the individual verbs that illustrate to the agentivity puzzle will require slightly different analyses of their thematic structure.

3.4.1 The account of *namekat'* 'hint'

I will start with the verb *namekat'* 'hint', because it will require the most straightforward account. The available argument structures for this verb are schematized in (83). We will have to account for why the non-agentive variant in (83b) disallows a CP complement as opposed to the agentive one in (83a).

(83) The argument structure of *namekat'* 'hint'
  a. Nom V_{ag} (Dat) *Acc/PP/CP
  b. Nom V_{nonag} (Dat) *Acc/PP/*CP

[51] Unless they are moved to the subject position to be assigned Nominative (or merged there in the case of [+c–m] clusters).

[52] Marijana Marelj (p.c.) raises the question about whether the view on (transitive) Accusative Case within the Theta System, which is essentially thematic (in the sense that it is licensed by the presence of a certain thematic composition), is compatible with general framework assumed in the Introduction, where the accusative Case is treated as structural (i.e. licensed in a particular structural configuration). Although the two frameworks certainly differ in their treatment of Accusative Case, they are not mutually exclusive as, for example, the ACC feature on the verb can be viewed as an instruction to project a particular structure. For further discussion of Accusative Case in the Theta System see Reinhart and Siloni 2005, Marelj 2013.

I will first present the general analysis of the agentive and the non-agentive *namekat'* 'hint', illustrated respectively in (84a) and (84b), repeated from above, and then offer my account of the licensing of the *čto*-clause complement with this verb.

(84) a. Maša namekaet Vane na to, čto pora uxodit'.
Maša.NOM hints Vanya.DAT on it.ACC that high time to go
'Maša implies to Vanya that it is high time they went.'

b. Forma zdanija namekaet na to, čto èto ne
shape.NOM building.GEN hints on it.ACC that this.NOM not
stalinskij ampir.
Stalinist Empire.NOM
'The shape of the building suggests that this is not Stalinist architecture.'

To capture the similarity between the agentive and the non-agentive *namekat'* 'hint', I will make use of Kissine's (2010) analysis of the non-illocutionary uses of assertive verbs, which he illustrates by *suggest* (he also extends this analysis to non-assertive verbs, on which see below). Kissine discusses examples like (85a) with the non-illocutionary use of the verb *suggest* and argues that the verb here expresses the natural-meaning relation (in the sense of Grice 1957), as shown by the availability of the paraphrase in (85b).

(85) a. These impressive ruins suggest that Romans were present here.
b. These impressive ruins mean/indicate that Romans were present here.
(Kissine 2010:353)

How does the this use of *suggest* link to the illocutionary (assertive) use of the verb? The basic assumption of Kissine's (2010) proposal is that an assertive speech act is a representation of the speaker's belief that *p* (see also Searle 1976). The representation of a belief, in its turn, is a representation of the state of affairs that this belief is supposed to 'fit'. The reasoning behind this assumption is that assertions, even when performed without full justifications (as is basically the meaning of the assertive *suggest*), fully commit speakers to the truth of the expressed propositions by virtue of the rules of communication. Consequently, any assertive speech act may be taken by the addressee as the direct sign of the states of affairs that it represents, namely *p*.

This analysis provides a direct link from the illocutionary to the non-illocutionary use of *suggest*. Just as the assertive speech act of suggestion is a direct sign of, i.e. stands in the natural-meaning relation to, the state of affairs realized that it represents (realized by the sentential complement), so the non-illocutionary *suggest* in (85a) describes a natural-meaning relation between one state of affair (realized as the subject) and another one (realized as the sentential complement).

Importantly, the relevant natural-meaning relation will be restricted to a particular 'epistemic domain', or set of facts, with respect to which a certain epistemic relation holds. In Kissine's own words, "for a causal relation to mean so-and-so to X, X must have been exposed to it during a period sufficiently long to automatically produce an association of a certain effect with a certain cause" (Kissine 2010:356). As is clear from this quote that there is an Experiencer argument (X) in the non-illocutionary use which represents the community of speakers sharing the particular epistemic domain, to which I will return shortly.

On a technical level, Kissine (2010) implements the link between the illocutionary and non-illocutionary use of *suggest* in terms of the metaphorical mapping whose source domain is constituted by the cognitive experience of assertive speech acts as standing proxy for information they convey and whose target domain is constituted by the natural-meaning relation between two states of affairs.

Although I will not adopt Kissine's (2010) proposal in its entirety, its main insight can serve as the basis for the thematic analysis that I will propose for *namekat'* 'hint' within the Theta System.

I will start my analysis of *namekat'* 'hint' with the subject argument, which is the locus of the agentive vs. non-agentive alternation. I would like to propose that, despite its very different interpretations, it should be analyzed as uniformly corresponding to the [+c] (Cause) cluster. I will now show why this is the case. Let's first look at the non-agentive *namekat'* 'hint', which is equivalent to the non-illocutionary *suggest* and thus expresses the natural-meaning relation. Why should it then be analyzed as [+c]? Recall that a [/+c] feature is associated with a participant role perceived as a sufficient condition. Now if we think about the subject of the non-agentive *namekat'* 'hint', we may note that it can also be analyzed as a sufficient condition for this relation. Intuitively, the entity described by 'the shape of the building' in (84b) immediately leads to the natural-meaning relation between this entity and the proposition expressed by the complement. Speaking more generally, when X means Y, the existence of X is inseparable from its meaning. Consequently, X is a sufficient condition for X's standing in the natural-meaning relation to Y and thus qualifies for the analysis as [+c].

This analysis is supported by the fact that the verb *označat'* 'signify' (and also the English *mean*), illustrated in (86), which is the standard way of lexicalizing the natural-meaning relation, behaves not unlike the other [+c] verbs like *open* in that it assigns Accusative Case to its complement. Recall that only [+] clusters are able to trigger the ACC-feature on the verb. Now that the subject of *označat'* 'mean' obviously cannot be either of the two other [/+] clusters [+m] or [+c+m] (as it is necessarily inanimate), the only remaining option is [+c].

(86) Èto označaet uvol'nenie.
this.NOM signifies dismissal.ACC
'This means dismissal. '

Turning to the agentive variant of *namekat'* 'hint', the [+c] cluster also captures the properties of the subject argument, which expresses the Agent of the speech act. Since the [+c] cluster is unspecified for the [/m] feature it can be construed with the positive specification of this feature, yielding the [+c+m] (Agent) interpretation. As a result, the subject of both the agentive and the non-agentive *namekat'* 'hint' can be analyzed as [+c].

The proposed analysis is guided by the assumption of the interpretive variability of θ-clusters in the Theta System. As Reinhart (2002) puts it, "many of the feature clusters have varying contextual interpretations. In this respect, this system follows Dowty's (1991) insight that the meaning of θ-roles is often contextually determined." Moreover, nothing precludes a given θ-cluster to have varying interpretations not only across different lexical entries but also within one and the same lexical entry (see, e.g., Reinhart's (2002) analysis of *escape*). Given these assumptions, it comes as no surprise that the exact semantic roles of the subject of *namekat'* 'hint' in its two uses are fairly different, i.e. the volitional animate causer of the speech act in the agentive case, as opposed to a fairly abstract inanimate causer (the first argument of the natural-meaning relation) in the non-agentive case.

As for the dative argument of *namekat'* 'hint', I will analyse it as uniformly corresponding to the [–c] (Goal) cluster, following the standard practice of Reinhart's (2002) Theta System. In the agentive case the [–c] cluster will have the usual Goal interpretation, expressing the Goal (i.e. the addressee) of the speech act. In the non-agentive case, however, the [–c] cluster will be interpreted as a certain kind of experiencer. Recall that the [–c] cluster is unspecified for the [/m] feature and thus can be construed as [–c+m] (Experiencer); in fact, this is the standard analysis of dative Experiencers in the Theta System. As opposed to the dative Experiencers of the epistemic *seem* and verbs like *appeal*, the dative Experiencer of the non-agentive *namekat'* 'hint' will express the community of speakers sharing the epistemic domain within which the natural-meaning relation expressed by the verb holds. This immediately explains why the dative argument will normally be implicit and have a generic interpretation. This is because by default the epistemic domain is shared by the whole community. In other cases the community will be restricted to some contextually salient group of people including the speaker, in which case it will be realized as a generic first person plural pronoun, as we see in (87).

(87) Forma zdanija namekaet nam na to, čto èto
shape.NOM building.GEN hints us.DAT on this.ACC that this.NOM
ne stalinskij ampir.
not Stalinist Empire.NOM
'The shape of the building suggests to us that this is not Stalinist architecture.'

Finally, I will analyze the propositional argument of *namekat'* 'hint' as uniformly [–m] (Subject Matter), whose interpretive properties fit the general

semantic characterization of this cluster.[53] In the Theta System the [–m] cluster describes a role borne by a participant whose mental state is never relevant but which, although not necessarily, can be viewed as the possible cause of the eventuality. This also holds for the propositional argument of *namekat'* 'hint'. The PP complement of both the agentive and the non-agentive *namekat'* 'hint' can denote a preexisting fact, as in (88). In view of this, the existence of this argument is not completely dependent on the speech act itself and thus it can in principle be perceived as causing the eventuality on a par with the subject, not unlike the Instrument ([+c–m]) cluster. The [–m] analysis of this arguments explains why it is realized as a PP but not as an accusative DP. According to the marking principles in (81), [–m] arguments do not trigger the ACC-marking on the verb.

(88) { Maša / forma zdanija} namekaet na to, čto v
Maša.NOM shape.NOM building.GEN hints on it.ACC that in
SSSR vxodilo 15 respublik.
USSR entered republics.GEN
'{Maša / the shape of the building} implies/suggests that the 15 republics were included in the USSR.'

Summarizing, the thematic analysis of *namekat'* 'hint' can be given in (89). This analysis allows to capture (by virtue of the abstract nature of the θ-clusters) the underlying similarity between the agentive and the non-agentive variants of *namekat'* 'hint' despite their difference in meaning and the difference in interpretation of the corresponding arguments. Now that under this analysis

[53] This analysis raises an interesting issue for the Theta System. As it stands, it violates the Cluster Distinctness Constraint (Reinhart 2002:264) in (i). This constraint is meant to account for the restriction on the co-occurrence of Cause and Subject Matter roles (discovered by Pesetsky (1995)), as manifested in examples like (ii). According to the formulation of this constraint, the [+c] and [–m] feature clusters come out as non-distinct and hence are not expected to be realizable together. The same problem arises not only for the analysis of *namekat'* 'hint' but also for the analysis of other verbs that I discuss, including *govorit'* 'say', *napominat'* 'remind' and *ubedit'* 'convince'. Note, however, that the acceptability of examples like (ii) are graded among speakers (see Marelj 2004). Moreover, as already noted by Pesetsky (1995), some verbs such as *interest* (also *convince*, see Reinhart 2002) do not seem to fully obey this constraint. Pending further investigation, I will tentatively assume that the constraint can be violated in certain cases. See also Marelj 2002 for an interesting account of this constraint.

(i) Cluster distinctness
   a. Two indistinct θ-clusters cannot be both realized on the same predicate.
   b. Distinctness: Two feature–clusters α, β, are distinct iff
      i. they share at least one feature, and
      ii. there is at least one feature or value which they do not share.

(ii) */? The doctor worried Lucy about her health.

(Marelj 2004)

the agentive and non-agentive variants of the verb actually correspond to the same lexical entry, both will share selectional information, including selection for a *čto*-clause, which essentially rules out an alternative lexical account of the licensing of the *čto*-clause (see section 3.2.5).

(89) The thematic analysis of *namekat'* 'hint'

a. $\text{Nom}_{[+c]\ (=[+c+m])}$	V_{ag}	$\text{Dat}_{[-c]}$	$\text{PP}_{[-m]}/\text{CP}_{[-m]}$
b. $\text{Nom}_{[+c]}$	V_{nonag}	$\text{Dat}_{[-c]\ (=[-c+m])}$	$\text{PP}_{[-m]}/{*}\text{CP}_{[-m]}$

I will now present my account of the licensing of the CP complement with *namekat'* 'hint'. I will start with the agentive variant in (83a), where the CP complement is acceptable. This is illustrated in (90), repeated from (14b).

(90) Maša namekaet Vane, čto pora uxodit'.
Masha.NOM hints Vanya.DAT that high time to go
'Masha implies to Vanya that it is high time they went.'

First of all, note that the verb fails to assign Accusative Case to its propositional argument, as illustrated by (91a), repeated from above.

(91) a. { Na čto / * čto} Maša namekaet Vane?
on what.ACC what.ACC Masha.NOM implies Vanya.DAT
'What does Masha imply to Vanya?'

Consequently, under the Case requirement in (41), the *čto*-clause will have to be introduced by a null preposition (P_{CP}) to license its Case, giving rise to the structure in (92).

(92) Maša namekaet Vane, [P_{CP} [$\varnothing_D$ čto pora uxodit']].

In its turn, the principle of Full Interpretation will force P_{CP} to receive some interpretation, which will be provided by the predicates in the QUALIA STRUCTURE in its complement, namely, **utter** and **hold**. P_{CP}-relation will further have to be predicated of the appropriate argument of the verb as stated in the conditions in (93), repeated from above.

(93) *The licensing condition of P_{CP}*
In order for P_{CP} to be licensed, one of the arguments of the predicate taking P_{CP} as its complement has to be construed as the utterer or the holder of the proposition expressed by the complement of P_{CP} by virtue of the semantics of the predicate and the linguistic context.

The condition in (93) will clearly be satisfied in structures like (92). Because the subject of the agentive *namekat'* 'hint' is interpreted as the Agent of the speech act, it can be easily construed as the utterer of the proposition expressed by the sentential complement, in accordance with the licensing condition.

Below I represent this formally. I take the meaning of the verb as in (94a).[54] Note that I use the [+c+m] (Agent) construal of the [+c] (Cause) cluster for representing the θ-role borne by the Agent. Recall (from section 3.2.4) that the predication is implemented via the adjunction of P_{CP} to V leading to semantic modification of its content. Given this, the semantic effect of P_{CP} can be given as in (95). P_{CP} will get predicated of the Agent argument and will be accordingly interpreted as the **utter** relation.

(94) *namekat'*$_{\text{AGENT}}$ 'hint':
$\lambda z.\lambda y.\lambda x.\lambda e.\, hint(e) \,\&\, Agent(e,x) \,\&\, Goal(e,y) \,\&\, SubjectMatter(e,z)$

(95) P_{CP} + *namekat'*$_{\text{AGENT}}$ 'hint':
$\lambda z.\lambda y.\lambda x.\lambda e.\, hint(e) \,\&\, Agent(e,x) \,\&\, Goal(e,y) \,\&\, SubjectMatter(e,z) \,\&$
$\&\; R(x,z) \,\&\, R = \textbf{utter}$
(predicated of the Agent)

Now let's turn to the non-agentive variant, where the CP complement is unacceptable. This is illustrated in (96), repeated from above.

(96) * Forma zdanija namekaet, čto èto ne stalinskij
shape.NOM building.GEN hints that this.NOM not Stalinist
ampir.
Empire.NOM
Intended: 'The shape of the building suggests that this is not Stalinist architecture.'

As in the agentive case, the verb fails to assign Accusative Case to its propositional argument, as shown in (97). Consequently, the *čto*-clause will have to be introduced by P_{CP} in order to satisfy the Case requirement.

(97) { Na čto / * čto} namekaet forma zdanija?
on what.ACC what.ACC hints shape.NOM building.GEN
'What does the shape of the building suggest?'

In this case, however, P_{CP}, will fail to satisfy the licensing conditions in (93) so that the structure in (98) will be blocked.

(98) * Forma zdanija namekaet, [P_{CP} [$\varnothing_D$ čto èto ne stalinskij ampir]].

Let's see why this is the case. The subject of the non-agentive *namekat'* 'hint' is an inanimate causer. As a result, it cannot possibly be construed as the utterer (or holder) of the proposition expressed by the complement. Note also that the subject is not an information repository so that it does not lend itself to a metonymic agentive interpretation.

[54] For the sake of readability, I use conventional notations for θ-clusters.

As for the dative argument, the situation is more complex. As I argued earlier, it is interpreted as a community of speakers sharing a particular epistemic domain. But crucially it does not have to be construed as the holder of the proposition expressed by the complement clause. We can verify this by conjoining the sentence in (84b) with another sentence expressing a conflicting belief on the part of the generic Experiencer (realized as first person plural pronoun); recall that the implicit dative argument has a generic interpretation similar to that of the generic first person plural pronoun, which can realize it overtly, as in (87). This is shown in (99a). As we can see, the sentence in (99a) is not a contradiction, it has the interpretation whereby some group of people including the speaker (say, his fellow citizens) generally hold some belief which is in conflict with the evidence available to that group. The community of speakers may possess the knowledge about how Stalinist houses are supposed to look like and yet fail to correctly attribute a particular house to a style of architecture.[55] The same is true of the sentence in (84b), with the realized dative argument, as shown in (99b). Contrast this with the genuine contradiction in (99c), where the Experiencer (of the verb 'seem') is indeed the holder.

(99) a. My dumaem, čto èto "stalinka", xotja
we.NOM think that this.NOM Stalinist house.NOM although
forma zdanija namekaet na to, čto èto
shape.NOM building.GEN hints on it.ACC that this.NOM
ne stalinskij ampir.
not Stalinist Empire.NOM
'We think that this is a "Stalinist house" although its shape suggests to us that this is not Stalinist architecture.'

b. My dumaem, čto èto "stalinka", xotja
we.NOM think that this.NOM Stalinist house.NOM although
forma zdanija namekaet nam na to, čto
shape.NOM building.GEN hints us.DAT on it.ACC that
èto ne stalinskij ampir.
this.NOM not Stalinist Empire.NOM

c. # My dumaem, čto èto "stalinka", xotja
we.NOM think that this.NOM Stalinist house.NOM although
nam kažetsja, čto èto ne stalinskij ampir.
us.DAT seems that this.NOM not Stalinist Empire.NOM
'We think that this is a "Stalinist house" although it seems to us that this is not Stalinist architecture.''

Now that the dative argument of the non-agentive *namekat'* 'hint' is not the holder, it will not satisfy the condition in (93). As a result, P_{CP}, however, will

[55] The sentence in (87), taken from the Internet in a modified form, originally refers to one of the buildings built in the 2000s in the so-called Luzhkov style, which vaguely resembles Stalinist architecture.

fail to be licensed and a *čto*-clause will be blocked.

I represent this formally in (100)–(101). Taking the meaning of the verbs to be as in (100a), the adjunction of P_{CP} will lead to two potential predication options in (101a)–(101b), both of which will violate the licensing condition in (93).

(100) *namekat'*$_{\text{NONAG}}$ 'hint' (='indicate'):
$\lambda z.\lambda y.\lambda x.\lambda e.\ indicate(e)$ & $Cause(e,x)$ & $Experiencer(e,y)$ &
& $SubjectMatter(e,z)$

(101) * P_{CP} + *namekat'*$_{\text{NONAG}}$ 'hint' (='indicate'):
a. $*\ \lambda z.\lambda y.\lambda x.\lambda e.\ indicate(e)$ & $Cause(e,x)$ & $Experiencer(e,y)$ &
& $SubjectMatter(e,z)$ & $R(x,z)$ &
& R = **hold/utter**
(predicated of the Cause)
b. $*\ \lambda z.\lambda y.\lambda x.\lambda e.\ indicate(e)$ & $Cause(e,x)$ & $Experiencer(e,y)$ &
& $SubjectMatter(e,z)$ & $R(y,z)$ &
& R = **hold/utter**
(predicated of the Experiencer)

An important point is in order before I conclude the discussion of *namekat'* 'hint'. As I showed earlier, sentences like (96) do not produce absolute ungrammaticality of the kind we see with violations of the Case Filter, as in (97). This should not appear surprising. Recall from section 3.2.3 that the Case requirement of *čto*-clauses always takes priority over the licensing condition in (93). This leads to "blindly" enforcing the presence of P_{CP} in sentences like (96), as I represented in (98). As a result, the infelicity of such sentences will ultimately stem from the semantic clash between the requirements of P_{CP} and the meaning of the verb and its arguments. The resolution of this clash will presumably involve some manipulation of the original meaning of the verb. One such possibility is that speakers will coerce the verb in sentences like (96) into the agentive interpretation, thus leading to a context where abstract entities (e.g., the shape of the building) are metaphorically construed as capable of bringing about propositional content.[56] The degree to which such manipulation is acceptable will presumably slightly vary with speakers and contexts. The crucial point is that the conflict has a pragmatic nature, which accounts for the observed flexibility of the acceptability judgments.

To summarize, I have first presented a unified analysis of the agentive and the non-agentive *namekat'* 'hint' within the Theta System based on the variable construals of the θ-clusters included in the lexical entry. I then argued that under the Case requirement, the *čto*-clause complement of *namekat'* 'hint' has

[56] This verb is particularly prone to this construal which is suggested by the fact that in the attested examples from the Internet it very often appears preceded by *kak by* 'as it were'. This phenomenon requires further investigation.

to be introduced by P_{CP}, which can be licensed in the agentive case but fails to be licensed in the non-agentive case, leading to the unacceptability of the *čto*-clause.

3.4.2 The account of *govorit'* 'say'

Next I will turn to the verb *govorit'* 'say'. The argument structures available for this verb are schematized in (102). We will have to account for why the non-agentive argument structure in (102b) disallows a CP complement as opposed to the agentive argument structure in (102a).

(102) The argument structure of *govorit'* 'say'
a. Nom V_{ag} (Dat) Acc/PP/CP
b. Nom V_{nonag} (Dat) *Acc/PP/*CP

My analysis of the relation between the agentive and the non-agentive *govorit'* 'say' will largely follow the analysis of *namekat'* 'hint', which I presented above. I will assume that the non-agentive *govorit'* 'say', illustrated in (103), denotes a natural-meaning relation and thus its subject argument corresponds to the [+c] (Cause) cluster. Accordingly, the subject of the agentive *govorit'* 'say' will correspond to the [+c+m] (Agent) construal of the [+c] cluster. Similarly, the dative argument will uniformly correspond to the [–c] cluster, which will have the Goal interpretation in the agentive case and will have the [–c+m] (Experiencer) construal in the non-agentive case.

(103) Èti naxodki govorjat (nam) o tom, čto na ètoj
these findings.NOM say to us about it.LOC that on this
territorii ran'še žili ljudi.
territory.LOC earlier lived people.NOM
'These findings indicate (to us) that earlier people used to live on this territory.'

The peculiarity of *govorit'* 'say' lies in its two possible realizations of the propositional argument in the agentive case, namely, as an accusative DP and a PP complement. I would like to propose that *govorit'* 'say' lexicalizes two different clusters corresponding to that argument, namely, [–c–m] (Theme) and [–m] (Subject Matter). The [–c–m] surfaces as the Accusative DP as well as a *čto*-clause (but see below), which would account for the Accusative marking of the DP, under the marking principle in (81). The [–m] argument surfaces as the PP complement, as in the case of *namekat'* 'hint'. This analysis is supported by some subtle semantic differences between the two types of complement. In examples like (104a)–(104b), corresponding to the [–c–m] cluster, the argument normally expresses the directly communicated content of the speech act. It is directly affected by the event (by being "produced" in its course), and is thus similar to some core cases of the patient relation (also realized as [–c–m]).

(104) a. Učenye govorjat, čto na ètoj territorii ran'še žili
scientists.NOM say that on this territory.LOC earlier lived
ljudi.
people.NOM
'Scientists claim that earlier people used to live on this territory.'

b. Čto govorjat učenye?
what.ACC say scientists.NOM
'What do scientists claim?'

In contrast, in examples like (105a), corresponding to the [–m] cluster, the relation borne by the argument is less clear, its exact content is hard to grasp but intuitively the argument is perceived as having a more independent factual status, rather than being merely a claim. Extending the same reasoning as we did in the analysis of *namekat'* 'hint', the argument potentially can have a causal relation to the event and is thus unspecified for the [/m] feature. The semantic nature of the PP complement is perhaps more clearly seen in examples like (105b), where it expresses the Subject Matter of the communicative act (standing in the aboutness relation to that communicative act). Recall that [–m] arguments are typically interpreted as Subject Matter in the Theta System.

(105) a. Učenye govorjat o tom, čto na ètoj territorii
scientists.NOM say about it.LOC that on this territory.LOC
ran'še žili ljudi.
earlier lived people.NOM
Lit.: 'Scientists are speaking about the fact that earlier people used to live on this territory.'

b. Učenye govorjat ob interesnoj naxodke.
scientists.NOM say about interesting finding.LOC
'Scientists are speaking about an interesting finding.'

Since the semantic relation associated with the [–m] cluster in sentences with propositional arguments such as (105a) is so nuanced, it is not easy to independently establish whether a bare *čto*-clause can also realize this cluster (besides with [–c–m]). This is especially hard because the availability of the unambiguous realization of [–m] as a PP may block the [–m] construal. However, there is no principled reason why a *čto*-clause should not be able to realize the [–m] cluster so I will be assuming that the [–m] has potentially two realizations (as PP and as CP).

Note that although both [–c–m] and [–m] clusters are present within the lexical entry for *govorit'* 'say', they cannot be realized simultaneously, as shown by examples like (106).[57] I leave open the question about how such a restriction

[57] The exception is the proleptic object construction, illustrated in (i), where the *čto*-clause necessarily includes a pronominal copy of the PP complement (see, e.g., Landau 2011). The proleptic construction is a general phenomenon not bearing on the lexical structure of *govorit'*

on the simultaneous realization of two clusters should be analyzed withing the Theta System. It might be related to Pesetsky's (1995) T/SM restriction, which also involves two semantically very similar arguments, even though it is not directly captured by the Cluster-Distinctness Condition, which Reinhart (2002) advances to account for the T/SM restriction; see footnote 53.

(106) * Učenye govorjat o naxodke, čto na ètoj
scientists.NOM say about finding.LOC that on this
territorii ran'še žili ljudi.
territory.LOC earlier lived people.NOM
Lit.: 'Scientists are saying about the finding that earlier people used to live on this territory.'

Note also that the realization of the [–c–m] cluster will require the agentive ([+c+m]) construal of the [+c] cluster, as manifested in the unacceptabilty of the Accusative DP in the non-agentive case, illustrated in (107).[58]

(107) { O čem / * čto} govorjat èti naxodki?
about what.LOC what.ACC say these findings.NOM
'What do these findings indicate?'

To summarize, the thematic analysis of *govorit'* 'say', which unifies the agentive and the non-agentive use of the verb within a single lexical entry, is given in (108). It is very similar to *namekat'* 'hint' except that it has an additional [–c–m] cluster, which is restricted to the agentive use.

(108) The thematic analysis of *govorit'* 'say'

a. $\text{Nom}_{[+c]\ ([+c+m])}$	V_{ag}	$\text{Dat}_{[-c]}$	$\text{Acc}_{[-c-m]}/\text{PP}_{[-m]}$
b. $\text{Nom}_{[+c]}$	V_{nonag}	$\text{Dat}_{[-c]\ ([-c+m])}$	$*\text{Acc}_{[-c-m]}/\text{PP}_{[-m]}$

I will now present my account of the licensing of a *čto*-clause complement of *govorit'* 'say'. The licensing of a *čto*-clause with the agentive variant in examples like (104a) is straightforward. Assuming that the *čto*-clause realizes the [–c–m] cluster, the verb will have the ACC feature (due to the marking principle in (81)) and the *čto*-clause will directly satisfy the Case requirement without the mediation of P_{CP}.[59]

Now let's turn to non-agentive case, where a *čto*-clause complement is unacceptable, illustrated in (109), repeated from above.

'say'.

(i) Učenye govorjat o naxodke$_i$, čto ona$_i$ sensacionnaja.
scientists.NOM say about finding.LOC that she.NOM sensational
'Scientists saying about the finding$_i$ that it$_i$ is sensational.'

[58] I leave open the question about why this has to be the case.

[59] Under the other analysis where the *čto*-clause corresponds to the [–m] cluster, it will be licensed by P_{CP} interpreted as the **utter** relation predicated of the Agent in the manner of *namekat'* 'hint'.

(109) * Èti naxodki govorjat, čto na ètoj territorii ran'še
these findings.NOM say that on this territory.LOC earlier
žili ljudi.
lived people.NOM
Intended: 'These findings indicate that earlier people used to live on this territory.'

The account here will be exactly the same as in the case of *namekat'* 'hint'. Because the verb fails to account Accusative Case to the propositional argument, as we saw in (107), the *čto*-clause will have to be introduced by P_{CP}.

(110) * Èti naxodki govorjat, [P_{CP} [$\varnothing_D$ čto na ètoj territorii ran'še žili ljudi]].

The licensing condition for P_{CP}, however, will fail to be satisfied. The subject argument is not sentient and will thus not qualify for either the utterer or the holder interpretation. As for the dative argument, although it is sentient, it is not construed as the holder, just like in the case of *namekat'* 'hint'. This can be shown by the fact the sentence in (111a), corresponding to (103), is not a contradiction; cf. to the sentence in (111b).

(111) a. My dumaem, čto èta territorija byla neobitaema,
we.NOM think that this territory.NOM was uninhabitated
xotja èti naxodki govorjat (nam) o tom, čto
although these findings.NOM say us.DAT about it.LOC that
zdes' ran'še žili ljudi.
here earlier lived people.NOM
'We think that this territory has been uninhabitated although these findings indicate that earlier people used to live here.'

b. # My dumaem, čto èta territorija byla neobitaema,
we.NOM think that this territory.NOM was uninhabitated
xotja nam izvestno, čto zdes' ran'še žili
although us.DAT well-known that here earlier lived
ljudi.
people.NOM
Lit.: 'We think that this territory has been uninhabitated although it is well-known to us that earlier people used to live here.'

In (112)–(113) I formally represent the semantics of the verb in (112) and the semantic effect of the adjunction of P_{CP} to V in (113a)–(113b) leading to infelicitous predication, violating the licensing condition of P_{CP}.

(112) *govorit'*$_{\text{NONAG}}$ 'say' (= 'indicate'):
$\lambda z.\lambda y.\lambda x.\lambda e.\ indicate(e)$ & $Cause(e,x)$ & $Experiencer(e,y)$ &
& $SubjectMatter(e,z)$

(113) * P_{CP} + *govorit'*$_{NONAG}$ 'say' (= 'indicate'):

a. * $\lambda z.\lambda y.\lambda x.\lambda e.$ *indicate*(e) & *Cause*(e,x) & *Experiencer*(e,y) &
& *SubjectMatter*(e,z) & $R(x,z)$ &
& R = **hold/utter**
(predicated of the Cause)

b. * $\lambda z.\lambda y.\lambda x.\lambda e.$ *indicate*(e) & *Cause*(e,x) & *Experiencer*(e,y) &
& *SubjectMatter*(e,z) & $R(y,z)$ &
& R = **hold/utter**
(predicated of the Experiencer)

As a result of the failure to license P_{CP}, the *čto*-clause complement will be disallowed in sentences like (109). Again, although such sentence will be consistently judged as significantly degraded, the degree of unacceptability of such sentences will slightly vary with speakers and contexts as in the case of *namekat'* 'hint'. One especially interesting possibility not discussed in connection with *namekat'* 'hint' is that speakers might "stretch", or coerce, the meaning of *govorit'* 'say' into the meaning of a causative verb such as *ubedit'*, which would make available the holder construal of the dative argument and hence license P_{CP}. This might explain why sentences like (114) with overt dative arguments seem to be slightly more acceptable than the corresponding sentences with unrealized dative arguments such as (109). The holder construal of the dative argument will render it an affected Experiencer (as it comes to hold the propositional content). Consequently, since affected Experiencers tend to be overtly realized (see section 3.4.3 and also footnote 13), this construal will be more easily available in sentences with overt dative arguments affecting the acceptability of the *čto*-clause.

(114) *? Èti naxodki govorjat nam, čto na ètoj territorii
these findings.NOM say us.DAT that on this territory.LOC
ran'še žili ljudi.
earlier lived people.NOM
Intended: 'These findings indicate to us that earlier people used to live on this territory.'

Although the factors facilitating structures predicted to be ungrammatical require further investigation, the crucial point is that the proposed account is fully capable of both capturing the general pattern displayed the non-agentive *govorit'* 'say' and making room for accounting for the observed flexibility of judgments.

3.4.3 The account of *napominat'* 'remind'

Finally, let's turn to *napominat'* 'remind', which will have a slightly more complicated account. The available argument structures of *napominat'* 'remind'

are schematized in (115).[60]

(115) The argument structures of *napominat'* 'remind'
a. Nom V_{ag} (Dat) *Acc/PP/CP
b. Nom V_{epist} (Dat) *Acc/PP/*CP
c. Nom V_{caus} (Dat) *Acc/PP/CP

We will have to account for why the non-agentive argument structure with the epistemic reading of the verb in (115b) does not license a *čto*-clause, as opposed to the agentive structure in (115a) and the non-agentive structure with the causative reading in (115c).

My analysis of the three different uses of *napominat'* 'remind' illustrated in (116a)–(116b) will be similar to the analysis of *namekat'* 'hint' and *govorit'* 'say' with minor modifications to account for the additional non-agentive reading.

(116) a. Maša napominaet dokladčiku o tom, čto u
Masha.NOM reminds speaker.DAT about it.LOC that at
nego ostalos' pjat' minut.
him.GEN left five minutes.GEN
'Masha reminds the speaker that he has five minutes left.'

b. Oblik teatra napominaet (nam) o tom, čto
look.NOM theater.GEN reminds us.DAT about it that
on byl postroen po obrazcu parižskogo "Odeona".
he.NOM was built by model.DAT Parisian Odeon.GEN
'The look of the theater building reminds (us) of the fact that it was built on the model of the Parisian Odeon.'

c. Oblik teatra napominaet Maše o tom, čto
look.NOM theater.GEN reminds Masha.DAT about it.LOC that
ona skoro poedet v Париж.
she.NOM soon will go to Paris.ACC
'The look of the theater building reminds Masha that she soon goes to Paris.'

Let's first observe that *napominat'* 'remind' shows exactly the same kind of ambiguity that we saw in the case of *namekat'* 'hint' and *govorit'* 'say'. Namely, it can either function as a regular speech act verb when it is agentive, as in (116a), or express a natural-meaning relation, as in (116b), when it is non-agentive. In fact, this is exactly how Kissine (2010) analyzes the non-illocutionary use of the English *remind* illustrated in (117). In particular, in such use the verb "describes a natural-meaning relation which is circumscribed to an epistemic domain where the referent of the syntactic subject stems from a causal origin, the existence of which has been forgotten by the addressee." Thus we can say that

[60] I omit the argument structure corresponding to the 'resemble' interpretation; see section 3.1.4.

the appearance of the theater building in (116b) stands in the natural-meaning relation with the information about how it was built.This natural-meaning relation exists within the contexts of facts available to some group of people, including the addressee, referred to by the dative argument.

(117) These impressive fortifications remind us of Rome's presence.
(Kissine 2010:358)

Crucially, in addition to the epistemic reading describing the natural-meaning relation, *napominat'* 'remind' has an additional non-agentive reading illustrated in (116c), which I identified as causative on the basis of the different paraphrases (see section 3.1.4). There are some important differences between the two readings, which mostly concern the dative argument. First of all, note that the dative argument in the causative reading is normally realized and does not have to be generic as opposed to the dative argument in the epistemic reading. Perhaps even more crucially, the dative argument is the causative reading is an affected experiencer, its mental state is changed by the referent of the subject as it comes to hold the proposition expressed by the sentential complement (which has been forgotten by him or her). This can be shown by the fact a sentence such as (129) becomes a contradiction when conjoined with another sentence that entails that the dative argument does not hold the relevant proposition. This is shown in (118a).[61] This is in contrast with the epistemic reading, which when conjoined with a similar sentence does not become a contradiction, as shown in (118b). It has an interpretation where the generic Experiencer possesses the relevant evidence but fails to make the inference.

(118) a. # Oblik teatra napominaet Maše, čto ona
look.NOM theater.GEN reminds Masha.DAT that she.NOM
skoro poedet v Париž, no ona ob ètom ne
soon will go to Paris.ACC but she.NOM about this.LOC not
podozrevaet.
suspects
Intended: 'The look of the theater building reminds Masha that she soon goes to Paris but she doesn't have a clue about this.'

[61] The same facts holds for sentences with a causative interpretation where the dative argument is generic, as shown in (i).

(i) # Oblik teatra napominaet ?(nam) o tom, čto u uskusstva net
look.NOM theater.GEN reminds us.DAT about it.LOC that by art.GEN no
nacional'nosti, no my tak ne sčitaem.
nationality.GEN but we.NOM so not think
Intended: 'The look of the theater reminds us that art has no nationality but we do not think so.'

b. Oblik teatra napominaet (nam) o tom, čto
look.NOM theater.GEN reminds us.DAT about it that
on byl postroen po obrazcu parižskogo "Odeona",
he.NOM was built by model.DAT Parisian Odeon.GEN
no my ob ètom ne podozrevaem.
but we.NOM about this.LOC not suspect
'The look of the theater building reminds us of the fact that it was built on the model of the Parisian Odeon but but we don't have a clue about this.'

The fact that the dative argument in the non-agentive causative reading is an affected Experiencer is further corroborated by the fact that it cannot be omitted in an (episodic) out-of-the-blue context (see footnote 11), as shown in (119a). Affected Experiencer arguments generally disfavor such omission, as illustrated in (119b) with the verb *ubedit'* 'convince'.

(119) a. * Oblik teatra napominaet o tom, čto ona
look.NOM theater.GEN reminds about it.LOC that she.NOM
skoro poedet v Париž.
soon will go to Paris.ACC
Intended: 'The look of the theater building reminds ⟨her⟩ that she soon goes to Paris.'

b. * Maša ubedila v tom, čto ona prava.
Masha.NOM convinced in it.LOC that she.NOM right
Lit.: 'Masha convinced of the fact that she is right.'

Now that the dative argument of the non-agentive *napominat'* 'remind' can be either affected or not, we may wonder whether in the agentive reading the dative argument has the affectedness property. The data suggests that it does not. First of all, observe that it can be freely omitted in an out-of-the blue context with an episodic interpretation, as shown in (120a). In that it behaves similarly to the dative argument of the other speech act verbs *govorit'* 'say' and *namekat'* 'hint' illustrated in (120b) and unlike the dative argument of causative non-agentive *napominat'* 'remind'.

(120) a. Maša napominaet, čto sledujuščij doklad načinaetsja
Masha.NOM reminds that next talk.NOM starts
čerez pjat' minut.
in five minutes.GEN
'Masha reminds that the next talk starts in five minutes.'

b. Maša govorit/namekaet, čto sledujuščij doklad
Masha.NOM says/hints that next talk.NOM
načinaetsja čerez pjat' minut.
starts in five minutes.GEN
'Masha says/implies that the next talk starts in five minutes.'

Secondly, the dative argument does not necessarily come to hold the proposition in question. This can be shown, for example, by the fact when the sentence in (125) is conjoined with another sentence that entails that the dative argument does not hold the relevant proposition, we do not have a contradiction, as shown in (121a). The same is true of the verbs *govorit'* 'say' and *namekat'* 'hint', as shown in (121b), and again in contrast with the causative reading of the non-agentive *napominat'* 'remind' and the sentence with verb *ubedit'* 'convince' in (121c), which entails the holding relation. We can conclude then that the dative argument of the agentive *napominat'* 'remind' is similar in its semantic properties to the Goal arguments of the *govorit'* 'say' and *namekat'* 'hint'.

(121) a. Maša napominaet dokladčiku, čto u nego ostalos'
Masha.NOM reminds speaker.DAT that at him.GEN left
pjat' minut, no on ne ponimaet.
five minutes.GEN but he.NOM not understands
'Masha reminds the speaker that he has five minutes left but he doesn't understand this.'

b. Maša govorit/namekaet dokladčiku, čto u nego
Masha.NOM says/hints speaker.DAT that at him.GEN
ostalos' pjat' minut, no on ne ponimaet.
left five minutes.GEN but he.NOM not understands
'Masha says/implies to the speaker that he has five minutes left but he doesn't understands this.'

c. # Maša ubedila dokladčika, čto u nego ostalos'
Masha.NOM convinced speaker.ACC that at him.GEN left
pjat' minut, no on ne ponjal.
five minutes.GEN but he.NOM not understood
Lit.: 'Masha convinced the speaker that he has five minutes left but he didn't understand this.'

Now we are in a position to propose a thematic analysis of the *napominat'* 'remind'. As in the previous cases, I will analyze the subject argument as uniformly corresponding to the [+c] (Cause) cluster, which will have different semantic interpretations in the three different uses of the verb. In the agentive case it will have a [+c+m] construal and will be interpreted as the Agent of a communicative act.[62] In the causative reading of the non-agentive verb it will be interpreted as the Cause of the change of mental state, and in the epistemic reading it will be interpreted as a subject of the natural-meaning relation.

As for the dative argument, it will uniformly correspond to the [–c] (Goal) cluster, again having different interpretations in the different uses of the verb. It will be interpreted as the addressee of the speech act in the agentive case,

[62] Note that the communication can proceed non-verbally when, for example, the Agent demonstrates a sign with the particular content.

and the experiencer, via the [–c+m] construal, in the non-agentive case. In addition, in the causative reading it will be an affected Experiencer (and the holder), which is not directly captured by the Theta System, but which will be crucial for the account of the acceptability of a *čto*-clause complement in this reading.

Finally, I will analyze the propositional argument as uniformly corresponding to the [–m] cluster, which will account for its realization as a PP, as shown in (122a)–(122b). This analysis is supported by the fact that it also can be realized as PP complement expressing the aboutness relation, as in (123), which is a standard construal of this cluster with the Theta System.

(122) a. { O čem / * čto} Maša napominaet dokladčiku?
about what.LOC what.ACC Masha.NOM reminds speaker.DAT
'What does Masha remind the reader about?'

b. { O čem / * čto} napominaet (Maše) oblik teatra?
about what.LOC what.ACC reminds Masha.DAT look.NOM theater.GEN
'What does the look of the theater building remind Masha of?'

(123) Maša napominaet dokladčiku o vremeni.
Masha.NOM reminds speaker.DAT about time.LOC
'Masha reminds the speaker about the time.'

The thematic analysis of *napominat'* 'remind' can be summarized as in (124). As we can see, it allows to unify the three different readings of the verb within one lexical entry.

(124) The thematic analysis of *napominat'* 'remind'

a. $Nom_{[+c]\,([+c+m])}$	V_{ag}	$Dat_{[-c]}$	$PP_{[-m]}/CP_{[-m]}$
b. $Nom_{[+c]}$	V_{epist}	$Dat_{[-c]\,([-c+m])}$	$PP_{[-m]}/*CP_{[-m]}$
c. $Nom_{[+c]}$	V_{caus}	$Dat_{[-c]\,([-c+m])}$	$PP_{[-m]}/CP_{[-m]}$

I will now present my account of the licensing of a CP complement with *napominat'* 'remind'. I will start with the agentive case, where the CP complement is allowed, as illustrated in (125), repeated from above.

(125) Maša napominaet dokladčiku, čto u nego ostalos' pjat' minut.
Masha.NOM reminds speaker.DAT that at him.GEN left five minutes.GEN
'Masha reminds the speaker that he has five minutes left.'

The account will be straightforward. Since the verb fails to assign Accusative Case to its propositional argument, as illustrated in (122a), the *čto*-clause will have to be introduced by P_{CP}, giving rise to the structure in (126).

(126) Maša napominaet dokladčiku, [P_{CP} [$\varnothing_D$ čto u nego ostalos' pjat' minut]].

As with the other speech act verbs that we saw, because the subject expresses the Agent of the communicative act it can easily be construed as the utterer, satisfying the licensing condition in (93). Thus P_{CP} will be interpreted as **utter** predicated of the Agent argument. This is formally represented in (127)–(128).

(127) *napominat'*$_{\text{AGENT}}$ 'remind':
$\lambda z.\lambda y.\lambda x.\lambda e.\ remind(e)$ & $Agent(e,x)$ & $Goal(e,y)$ &
& $SubjectMatter(e,z)$

(128) P_{CP} + *napominat'*$_{\text{AGENT}}$ 'remind':
$\lambda z.\lambda y.\lambda x.\lambda e.\ remind(e)$ & $Agent(e,x)$ & $Goal(e,y)$ &
& $SubjectMatter(e,z)$ & $R(x,z)$ & R = **utter**
(predicated of the Agent)

Let's turn to the non-agentive variant of *napominat'* 'remind', starting from the causative reading, where a *čto*-clause is acceptable, as illustrated in (129), repeated from above.

(129) Oblik teatra napominaet Maše, čto ona skoro
look.NOM theater.GEN reminds Masha.DAT that she.NOM soon
poedet v Париž.
will go to Paris.ACC
'The look of the theater building reminds Masha that she soon goes to Paris.'

The *čto*-clause will also have to be introduced by P_{CP} in a structure like (130) but in this case P_{CP} will be licensed in a different way. As I argued above, the dative argument is an affected Experiencer and is interpreted as the holder of the proposition realized by the sentential complement. As a result, P_{CP} will be interpreted as the **hold** relation predicated of the dative experiencer. This is formally represented in (131)–(132).

(130) Oblik teatra napominaet Maše, [P_{CP} [$\varnothing_D$ čto ona skoro poedet v Париž]].

(131) *napominat'*$_{\text{NONAG}}$ 'remind' (causative reading):
$\lambda z.\lambda y.\lambda x.\lambda e.\ remind(e)$ & $Cause(e,x)$ & $Experiencer(e,y)$ &
& $SubjectMatter(e,z)$

(132) P_{CP} + *napominat'*$_{\text{NONAG}}$ 'remind':
$\lambda z.\lambda y.\lambda x.\lambda e.\ remind(e)$ & $Cause(e,x)$ & $Experiencer(e,y)$ &
& $SubjectMatter(e,z)$ & $R(y,z)$ & R = **hold**
(predicated of the Experiencer)

Finally turn to the epistemic reading of the non-agentive *napominat'* 'remind', where the *čto*-clause complement is disallowed, as illustrated in (133), repeated from above.

(133) *? Oblik teatra napominaet, čto on byl postroen po
look.NOM theater.GEN reminds that he.NOM was built by
obrazcu parižskogo "Odeona".
model.DAT Parisian Odeon.GEN
Intended: 'The look of the theater building reminds of the fact that it was built on the model of the Parisian Odeon.'

As with the other readings of the verb, the structure of this sentence will be as in (134). In this case, however, the P_{CP} will fail to be licensed. The subject argument is an inanimate Cause and hence cannot possibly be construed as the utterer (or the holder). As for the dative argument, as I argued, despite its sentience it is not construed as the holder in the epistemic reading and thus will not satisfy the licensing conditions in (93), just like in the case of the non-agentive *govorit'* 'say' and *namekat'* 'hint'. As a result, P_{CP} will not be licensed and a *čto*-clause complement will be disallowed. I represent this formally in (135)–(136).

(134) * Oblik teatra napominaet, [P_{CP} [$\varnothing_D$ čto on byl postroen po obrazcu parižskogo "Odeona"]].

(135) *napominat'*$_{\text{NONAG}}$ 'remind' (epistemic reading):
$\lambda z.\lambda y.\lambda x.\lambda e.\ remind(e)$ & $Cause(e,x)$ & $Experiencer(e,y)$ &
& $SubjectMatter(e,z)$

(136) * P_{CP} + *napominat'*$_{\text{NONAG}}$ 'remind' (epistemic reading):
a. * $\lambda z.\lambda y.\lambda x.\lambda e.\ remind(e)$ & $Cause(e,x)$ & $Experiencer(e,y)$ &
& $SubjectMatter(e,z)$ & $R(x,z)$ &
& R = **utter/hold**
(predicated of the Cause)
b. * $\lambda z.\lambda y.\lambda x.\lambda e.\ remind(e)$ & $Cause(e,x)$ & $Experiencer(e,y)$ &
& $SubjectMatter(e,z)$ & $R(y,z)$ &
& R = **utter/hold**
(predicated of the Experiencer)

As I mentioned earlier, examples with the epistemic reading of the non-agentive *napominat'* 'remind' and *čto*-clause such as (133) will not be absolutely

ungrammatical, just as in the case of the non-agentive *namekat'* 'hint' and *govorit'* 'say'. In fact examples with the non-agentive *napominat'* 'remind' (on the epistemic reading) and a *čto*-clause are particularly confusing with respect to the acceptability judgments (as compared to *namekat'* 'hint' and *govorit'* 'say'). Speakers, including myself, sense that something is wrong with these examples but this intuition is not very strong. The proposed account is perfectly fit to explain this vagueness in the judgments. Because the dative argument of the non-agentive *napominat'* 'remind' can be construed as the holder (in the causative reading), confronted with examples like (133), speakers will tend to understand the verb in the causative sense in order to satisfy the licensing conditions for P_{CP}. The infelicity will arise due to the fact the causative reading is pragmatically odd for this example (although not impossible), because it will require a rather unnatural context where some group of individuals (including the speaker) generally know but can easily forget the story of the particular theater building (the Bavarian State Opera, in the original example) and a glance at this building can refresh their memories. In contrast, the epistemic reading in the corresponding examples like (116b) only asserts that there is an objective natural-meaning relation between the theater building and the story about how it was built which exists in the epistemic domain shared by some group of people in general.

3.4.4 The account of *grozit'* 'threaten'

Finally, I turn to the verb *grozit'* 'threaten'.[63] The two argument structures of *grozit'* 'threaten' are schematized in (137). We will have to account for why the non-agentive variant in (137b) disallows a CP complement, as opposed to the agentive one in (137a).

(137) The argument structure of *grozit'* 'threaten'
a. Nom V_{ag} Dat *Acc/Ins/CP
b. Nom V_{nonag} Dat *Acc/Ins/*CP

I will first present the general analysis of *grozit'* 'threaten' and then present my account of the licensing of the *čto*-clause complement. To capture the similarity between the agentive and the non-agentive *grozit'* 'threaten' illustrated in (138a) and (138b), I will follow Kissine's (2010) analysis of the non-illocutionary use of the English *threaten*.

(138) a. Načal'nik grozit Maše tem, čto ona budet
boss.NOM threatens Masha.DAT it.INS that she.NOM will be
uvolena.
fired
'The boss threatens Masha with the fact that she will be fired.'

[63] See Knyazev 2012 for a different account of the data.

b. Opozdanie grozit Maše tem, čto ona budet
being late.NOM threatens Masha.DAT it.INS that she.NOM will be
uvolena.
fired
'Being late threatens Masha with being fired.'

Kissine observes that the agentive *threaten*, illustrated in (139a), expresses a commissive speech act (see, e.g., Searle 1976) and as such entails the speaker's commitment to fulfill his or her threat by bringing about the state of affairs realized by the complement if some conditions obtain. Consequently, once the relevant conditions are met, there is a high degree of certainty that the relevant state of affairs will happen. As a result, threats are perceived as signs of some future states of affairs. Kissine (2010:363) argues that the same is true of the non-illocutionary *threaten*, illustrated in (139b), where "the referent of the subject indicates that the situation described by the object clause will necessarily take place if some conditions obtain." Thus the non-illocutionary *threaten* is taken to express the same natural-meaning relation, as with the other verbs.

(139) a. John has threatened Mary to kill her (if she doesn't stops dating Peter).
b. The encounter threatens to be boring.
(Kissine 2010)

As in the previous cases, I will analyze the subject as uniformly corresponding to the [+c] (Cause) cluster. The [+c] cluster will be interpreted as the subject of the natural-meaning relation in the agentive case, in line with Kissine's (2010) analysis. In the agentive case it will express the Agent of the speech act of threatening and thus will have an Agent ([+c+m]) construal.[64]

As for the dative argument, I will analyze it as uniformly corresponding to the [–c] (Goal) cluster, following the standard practice of Reinhart's (2002) Theta System. In the agentive case it will have an interpretation of the addressee (of the speech act of threatening), as in the previous cases. In

[64] The analysis of the subject argument as [+c] is supported by the fact it can easily account for the two-place variant of *grozit*' 'threaten', illustrated in (i), repeated from above. Semantically, the subject argument corresponds to the instrumental argument in the non-agentive variant of the three-place verb, whereas the original subject argument appears to be missing. This configuration directly follows if the two-place variant is derived from the three-place variant by the independently motivated Expletivization operation (see section 3.3), which removes the [+c] cluster from the original entry. Note that, in all likelihood, the application of this operation is independently necessary to account for the raising variant of the counterparts of *grozit*' threaten' in languages like English, as we saw in (139b).

(i) Ej grozit { uvol'nenie / čto ona budet uvolena}.
her.DAT threatens firing.NOM that she.NOM will be fired
'She is in danger of being fired.'

the non-agentive cases it will differ from the corresponding argument of the *govorit'* 'say', *namekat'* 'hint' and *napominat'* 'remind', which will have some repercussions for the account of the unacceptability of the *čto*-clause. As opposed to the Experiencer interpretation (expressing the community sharing the epistemic domain), in the case of *grozit'* 'threaten' it will be interpreted as the affected argument, or maleficiary, of the situation comprising a threat, a legitimate construal associated with the [–c] cluster in the Theta System. Note incidentally, that the dative argument will normally be realized and will not have to be generic as the dative argument of the non-agentive *govorit'* 'say', *namekat'* 'hint' and *napominat'* 'remind' (on the epistemic reading).

Finally, let's turn to the propositional argument of *grozit'* 'threaten', which is realized as an instrumental phrase, as shown in (140b)–(140b).

(140) a. { Čem / * čto} ej grozit načal'nik?
what.INS what.ACC her.DAT threatens boss.NOM
'What does the boss threatens her with?'

b. { Čem / * čto} ej grozit opozdanie?
what.INS what.ACC her.DAT threatens being late.NOM
'What does being late threatens her with?'

Given that instrumental phrase is the standard realization of Instruments in Russian, I will assume that it corresponds to the [+c–m] (Instrument) cluster. It should not worry us that this argument is not an Instrument in the strict semantic sense. For example, Reinhart (2002) treats *water* in sentences like *Max filled the pool with water* as [+c–m], suggesting that it has the same causing relation to the verb as typical Instruments. In fact, the [+c–m] cluster does not even have to have a causing relation objectively, it merely has to be perceived as an Instrument. This indeed is the case with *grozit'* 'threaten', whose instrumental argument can be thought as contributing (on a par with the subject) to the speech act of threatening in the agentive case and to the establishing of the natural-meaning relation in the non-agentive case. Thus we can reasonably extend the [+c–m] analysis to the instrumental argument of *grozit'* 'threaten'. The proposed analysis is supported by the fact that the agentive *grozit'* 'threaten' also allows a true Instrument, as shown in (141).

(141) Načal'nik grozit ej kulakom.
boss.NOM threatens her.DAT fist.INS
'The boss threatens her with his fist.'

Summarizing, the thematic analysis of *grozit'* 'threaten' is given in (142).

(142) The thematic analysis of *grozit'* 'threaten'

a.	$\text{Nom}_{[+c]\text{ (int. [+c+m])}}$	V_{ag}	$\text{Dat}_{[-c]}$	$\text{Ins}_{[+c-m]}/\text{CP}_{[+c-m]}$
b.	$\text{Nom}_{[+c]}$	V_{nonag}	$\text{Dat}_{[-c]}$	$\text{Ins}_{[+c-m]}/*\text{CP}_{[+c-m]}$

I will now present my account of the licensing of a *čto*-clause complement with *grozit'* 'threaten' based on the P_{CP} proposal. I will start with the agentive variant in (137a), where a *čto*-clause is acceptable, as illustrated in (143), repeated from above.

(143) Načal'nik grozit ej, čto ona budet uvolena.
boss.NOM threatens her.DAT that she.NOM will be fired
'The boss threatens her that she will be fired.'

Since the verb fails to assign Accusative Case to its propositional argument, the *čto*-clause will have to be introduced by P_{CP} to license its Case, giving rise to the structure in (144).

(144) Načal'nik grozit ej, [P_{CP} [$\varnothing_D$ čto ona budet uvolena]].

Given that the subject of the agentive *grozit'* 'threaten' is interpreted as the Agent of the speech act of threatening, it can be easily construed as the utterer and thus satisfy the licensing condition in (93). As a result, P_{CP} will get predicated of the Agent argument and will be accordingly interpreted as the **utter** relation. This is formally represented in (145a)–in (145b).

(145) $grozit'_{\text{AGENT}}$ 'threaten':
$\lambda z.\lambda y.\lambda x.\lambda e.\ threaten(e) \,\&\, Agent(e,x) \,\&\, Goal(e,y) \,\&\, Instrument(e,z)$

(146) $P_{CP} + grozit'_{\text{AGENT}}$ 'threaten':
$\lambda z.\lambda y.\lambda x.\lambda e.\ threaten(e) \,\&\, Agent(e,x) \,\&\, Goal(e,y) \,\&\, Instrument(e,z) \,\&$
$\&\ R(x,z) \,\&\, R = \mathbf{utter}$
(predicated of the Agent)

Let's now turn to the non-agentive variant in (137b), where the CP complement is disallowed, as illustrated in (147), repeated from above.

(147) * Opozdanie grozit ej, čto ona budet uvolena.
being late.NOM threatens her.DAT that she.NOM will be fired
Intended: 'Being late threatens her with being fired.'

As in the agentive case, the verb fails to assign Accusative Case to its propositional argument so the *čto*-clause will have to be introduced by P_{CP} in order to satisfy the Case requirement. P_{CP}, however, will fail to satisfy the licensing conditions in (93) so that the structure in (148) will be blocked.

(148) * Opozdanie grozit ej [P_{CP}, [$\varnothing_D$ čto ona budet uvolena]].

The subject of the non-agentive *grozit'* 'threaten' is an inanimate causer. As a result, it cannot possibly be construed as the utterer (or holder) of the proposition expressed by the complement. As for the dative argument, it cannot satisfy the licensing condition either. Even though it is necessarily

animate, it is not an Experiencer and thus cannot possibly be construed as the holder (the utterer interpretation is blocked for the obvious reason that it is not an Agent). A sentence with the non-agentive *grozit'* 'threaten' such as (138b) does not entail anything about the mental state of the dative argument, including, naturally, whether it holds the proposition realized by the sentential complement. This can be illustrated by the fact the sentence in (149a), which is a continuation of the sentence in (138b), is not a contradiction; cf. contradictory sentence in (149b), with the corresponding argument interpreted as the holder of the proposition.

(149) a. Opozdanie grozit Maše tem, čto ona
being late.NOM threatens Masha.DAT it.INS that she.NOM
budet uvolena, no ona ob ètom ne podozrevaet.
will be fired but she.NOM about this.LOC not suspects
'Being late threatens Masha with being fired but she doesn't have a clue about this.'

b. # Maša boitsja, čto ona budet uvolena, no
Masha.NOM fears that she.NOM will be fired but
ona ob ètom ne podozrevaet.
she.NOM about this.LOC not suspects
'Masha fears that she will be fired she doesn't have a clue about this.'

Since neither the subject or the dative argument of *grozit'* 'threaten' can satisfy the condition in (93), P_{CP} will fail to be licensed and hence a *čto*-clause will be disallowed. This is formally represented in (150)–(151).

(150) *grozit'*$_{\text{NONAG}}$ 'threaten':
$\lambda z.\lambda y.\lambda x.\lambda e.\ threaten(e) \,\&\, Cause(e,x) \,\&\, Goal(e,y) \,\&\, Instrument(e,z)$

(151) * P_{CP} + *grozit'*$_{\text{NONAG}}$ 'threaten':
a. $*\ \lambda z.\lambda y.\lambda x.\lambda e.\ threaten(e) \,\&\, Cause(e,x) \,\&\, Goal(e,y) \,\&$
$\&\, Instrument(e,z) \,\&\, R(x,z) \,\&$
$\&\, R =$ **utter/hold**
(predicated of the Cause)
b. $*\ \lambda z.\lambda y.\lambda x.\lambda e.\ threaten(e) \,\&\, Cause(e,x) \,\&\, Goal(e,y) \,\&$
$\&\, Instrument(e,z) \,\&\, R(y,z) \,\&$
$\&\, R =$ **utter/hold**
(predicated of the Goal)

Interestingly, examples like (138b) yield more robust acceptability judgments, compared to the corresponding examples with *govorit'* 'say', *namekat'* 'hint' and *napominat'* 'remind'. The proposed account offers a natural explanation for this fact. Because the dative argument of *grozit'* 'threaten' is interpreted

as a maleficiary rather than an experiencer, it is almost impossible to coerce the meaning of the non-agentive verb into a causative one with the dative argument interpreted as the holder. Hence the semantic clash between the requirements of P_{CP} and the meaning of the verb is particularly strong in this case.

To summarize, I have discussed four speech act verbs that have non-agentive uses in which they express the natural-meaning relation. These verbs display what I called the agentivity puzzle, namely disallow *čto*-clause complements (as well as accusative complements) in their non-agentive uses, despite allowing PP/oblique complements with the identical propositional content (*to*,*čto*-clauses) and allowing *čto*-clause complement when they have an agentive subject (or an object Experiencer). I argued that the agentivity puzzle follows from Case requirement of *čto*-clauses and the P_{CP} proposal.

3.5 Some other alternating verbs

In the remainder of this chapter, I will discuss a few other verbs that slightly differ from the agentivity puzzle verbs but display a similar pattern with respect to the licensing of *čto*-clauses. First, I will discuss verbs *ukazyvat'* 'indicate' and *svidetel'stvovat'* 'testify', which are not speech act verbs proper. Second, I will discuss the object Experiencer verb *pugat'* 'frighten', which can express a speech act in its agentive use. I will show that the patterns displayed by these verbs also follow from the P_{CP} proposal and the Case requirement of *čto*-clauses, thus providing further support for the account proposed in this chapter.

3.5.1 *Ukazyvat'* 'point (out)' and *svidetelstvovat'* 'testify'

Ukazyvat' 'point (out)' and *svidetelstvovat'* 'testify' also display agentive vs. non-agentive alternation. Just like the verbs discussed above, these verbs also express the natural-meaning relation in their non-agentive use, as illustrated in (152a)–(152b). In the agentive uses, illustrated in (153a)–(153b), these verbs do not express reports of speech acts proper but rather what Anand and Hacquard (2009) call discourse moves, i.e. the describe "attempts to place their complement proposition in the common ground".[65]

(152) a. Pojavlenie èt-ix simptomov ukazyvaet na to, čto
appearance.NOM these symptoms.GEN points on it.ACC that
est' ugroza infarkta.
is threat heart attack.GEN
'The appearance of these symptoms points to the fact that there is a threat of heart attack.'

[65] Anand and Hacquard call such verbs proffering verbs and they list among such verbs *argue*, *assert*, *assume*, *claim*, *convince*, *demonstrate*, *imply*, *presuppose*, *suggest*.

b. Podderžka obščestvom antitabačnogo zakona svidetel'stvuet
support.NOM society.INS anti-tobacco law.GEN testifies
o tom, čto on pravilnyj.
about it.LOC that he.NOM right
'The support of the anti-tobacco law by the public testifies to the fact that it is right.'

(153) a. Èkspert ukazyvaet na to, čto mogily byli
expert.NOM points on it.ACC that graves.NOM were
obščimi.
communal
'The expert points out that the graves were communal.'

b. Avtor stat'ji svidetel'stvuet o tom, čto v ego
author.NOM article.GEN testifies about it.LOC that in his
vremja takogo ne proisxodilo.
time.ACC such things.GEN not happened
'The author of the article testifies to the fact that in his time such things did not happen.'

Just like the verbs of the agentivity puzzle in Table 3.1, these verbs disallow Accusative complements, as illustrated in (154a)–(154b) and (155a)–(155b).[66]

(154) a. {Èkspert / pojavlenie èti simptomov}
expert.NOM appearance.NOM these symptoms.GEN
ukazyvaet na èto.
points on this.ACC
'{The expert/appearance of these symptoms} points to this.'

b. * {Èkspert / pojavlenie èti simptomov}
expert.NOM appearance.NOM these symptoms.GEN
ukazyvaet èto.
points this.ACC
Intended: '{The expert/appearance of these symptoms} points to this.'

[66] *Ukazyvat'* 'point (out)' allows Accusative complements in a 'directional' reading (non-epistemic and non-"discourse move"), illustrated in (ia)–(ib).

(i) a. Lider gruppy ukazyvaet put'.
leader.NOM group.GEN points way.ACC
'The leader of the group points the way.'

b. Strelka ukazyvaet napravlenie vetra.
arrow.NOM points direction.ACC wind.GEN
'The arrow points the direction of the wind.'

(155) a. { Avtor stat'ji / podderžka zakona}
author.NOM article.GEN support.NOM law.GEN
svidetel'stvuet ob ètom.
testifies about this.LOC
'{The author of the article/support of the law} testifies to this.'

b. * { Avtor stat'ji / podderžka zakona}
author.NOM article.GEN support.NOM law.GEN
svidetel'stvuet èto.
testifies this.LOC
Intended: '{The author of the article/support of the law} testifies to this.'

In accordance with the account proposed in this chapter, *čto*-clause complements are degraded with the non-agentive variants of these verbs, as shown in (156a)–(156b); cf. the acceptability of *to*,*čto*-clauses in the corresponding examples in (152a)–(152b). Note that the examples with *čto*-clauses are not absolutely ungrammatical, although they are significantly less acceptable than the examples with *to*,*čto*-clauses, a point to which I return below.

(156) a. ?? Pojavlenie èti x simptomov ukazyvaet, čto est'
appearance.NOM these symptoms.GEN points that is
ugroza infarkta.
threat.NOM heart attack.GEN
Intended: 'The appearance of these symptoms points to the fact that there is a threat of heart attack.'

b. ?? Podderžka obščestvom antitabačnogo zakona
support.NOM society.INS anti-tobacco law.GEN
svidetel'stvuet, čto on pravilnyj.
testifies that he.NOM right
Intended: 'The support of the anti-tobacco law by the public testifies to the fact that it is right.'

In contrast, the agentive variants of these verbs allow *čto*-clause complements, as shown in (157a)–(157b).

(157) a. Èkspert ukazyvaet, čto mogily byli obščimi.
expert.NOM points that graves.NOM were communal
'The expert points out that the graves were communal.'

b. Avtor statji svidetel'stvuet, čto v ego vremja
author.NOM article.GEN testifies that in his time.ACC
takogo ne proisxodilo.
such things.GEN not happened
'The author of the article testifies that in his time such things did not happen.'

Other examples, illustrating the degradedness of *čto*-clauses with the non-agentive variants of these verbs are illustrated in (158a)–(159a); cf. the acceptability of *to,čto*-clauses in the corresponding examples in (158b)–(159b).

(158) a. ?? Otsutstvie kakix-libo nadpisej ukazyvaet, čto
absence.NOM any inscriptions.GEN points that
mogily byli obščimi.
graves.NOM were communal
Intended: 'The expert points to the fact that the graves were communal.'

b. Otsutstvie kakix-libo nadpisej ukazyvaet na to,
absence.NOM any inscriptions.GEN points on it.ACC
čto mogily byli obščimi.
that graves.NOM were communal
'The expert points to the fact that the graves were communal.'

(159) a. ?? Prevyšenie vesa butylki svidetel'stvuet, čto
exceeding.NOM weight.GEN bottle.GEN testifies that
vodka razbavlena.
vodka.NOM diluted
Intended: 'Exceeding the weight of the bottle testifies to the fact that the vodka is diluted.'

b. Prevyšenie vesa butylki svidetel'stvuet o
exceeding.NOM weight.GEN bottle.GEN testifies about
tom, čto vodka razbavlena.
it.LOC that vodka.NOM diluted
'Exceeding the weight of the bottle testifies to the fact that the vodka is diluted.'

The degradedness of *čto*-clause with the non-agentive variants of *ukazyvat'* 'point (out)' and *svidetel'stvovat'* 'testify' follows from the Case requirement and the P_{CP} proposal. Given that these verbs do not assign Accusative case, the *čto*-clause will be introduced by P_{CP}. Yet, as with the other verbs of the agentivity puzzle, the natural-meaning relation, expressed by these verbs, does not provide an argument that can potentially satisfy the licensing condition for P_{CP} in (93), leading to the unacceptability, whereas in the agentive variants P_{CP} can be interpreted as the **utter** relation predicated of the subject (obviously the **utter** relation here stands for 'volitionally bring about some propositional content').

Now we may note, the non-agentive examples with *čto*-clauses produce relatively weak violations. Indeed such examples appear more acceptable than the corresponding examples with the non-agentive *govorit'* 'say', *napominat'* 'remind' and *napominat'* 'remind' and *a fortiori grozit'* 'threaten'. Although I do not have a clear understanding of this fact, I would like to suggest the following explanation.

First of all, we may note that the relation between the agentive and the non-agentive variants of *ukazyvat'* 'point (out)' and *svidetel'stvovat'* 'testify' is semantically quite different from that of the corresponding variants of the agentivity puzzle verbs. As was already evident from Kissine's (2010) account of the agentivity puzzle verbs discussed above, the non-agentive variants of these verbs, which express the natural-meaning relation, are semantically derived from their agentive variants expressing reports of speech act (despite the fact they are still coded as the same concept). This does not appear to be the case with *ukazyvat'* 'point (out)' and *svidetel'stvovat'* 'testify'. Rather the intuition is that the agentive and the non-agentive variants of *ukazyvat'* 'point (out)' and *svidetel'stvovat'* 'testify' are not derived from one another but instantiate the same underspecified meaning (concretely, by corresponding to the two different realizations of the underspecified [+c] subject cluster). Thus their relation is similar to that of the causative and agentive *open* (as in *The wind opened the door* vs. *Max opened the door*), which we would want to analyze as the same verb with the same (underspecified) meaning.

Suppose this intuition is correct. Now let's look at the structures in (160a)–(160b), corresponding to the unacceptable examples in (156a)–(156b).

(160) a. * Pojavlenie simptomov ukazyvaet, [P_{CP} [$\varnothing_D$ čto est'
appearance.NOM symptoms.GEN points that is
ugroza infarkta]].
threat.NOM heart attack.GEN

b. * Podderžka zakona svidetel'stvuet, [P_{CP} [$\varnothing_D$ čto on
support.NOM law.GEN testifies that he.NOM
pravilnyj]].
right

Guided by the logic I employed to account for the relative unacceptability of *čto*-clauses with the agentivity puzzle verbs, we expect that the P_{CP} in (160a)–(160b) will be interpreted as the **utter** relation, as in the agentive variants of *ukazyvat'* 'point (out)' and *svidetel'stvovat'* 'testify'. The inanimate subjects in (160a)–(160b) will clash with the s-selectional requirements of **utter**, accounting for the observed degradedness. However, because the agentive variants do not have a separate meaning distinct from the non-agentive ones, we will not have an additional violation of the s-selectional requirements of the (agentive) verb itself, as we do in the agentivity puzzle verbs (where the presence of P_{CP} necessitates the agentive construal). This will result in a weaker degradedness than in the case of the agentivity puzzle verbs.

3.5.2 *Pugat'* 'frighten'

The verb *pugat'* 'frighten' is an object Experiencer verb that takes an accusative Experiencer and, like many psych verbs, allows both agentive and non-agentive

uses, as shown in (161).[67]

(161) { Bolezn' rebenka / načal'nik} pugaet Mašu.
illness.NOM child.GEN boss.NOM frightens Masha.ACC
'{The disease of the child/the boss} frightens Masha.'

In both of its uses the verb optionally takes a nominal complement or *to,čto*-clause marked with instrumental case, as shown in (162a)–(162a), giving rise to the construction similar to the one observed with the verb *grozit'* 'threaten', as we saw in section 3.1.2. In the non-agentive case the complement specifies the Cause of the fear. In the agentive case the verb is interpreted as a speech act verb with the complement specifying the content of the speech act.

(162) a. Bolezn' rebenka pugaet Mašu { vozmožnym
illness.NOM child.GEN frightens Masha.ACC possible
osložneniem / tem, čto možet proizojti osložnenie}.
complication.GEN it.INS that may happen complication.NOM
Lit.: 'The disease of the child frightens Masha by {its possible complications/the fact that a complication may happen}.'

b. Načal'nik pugaet Mašu { poniženiem zarplaty / tem,
boss.NOM frighten Masha.ACC fall.INS salary.GEN it.INS
čto ej ponizjat zarplatu}.
that her.DAT decrease salary.ACC
Lit.: 'The boss frightens Masha with {the reduction of her salary/the fact that her salary will be reduced}.'

Just like in the case of *grozit'* 'threaten', the instrumental phrase can be replaced with a bare *čto*-clause with the same meaning only in the agentive case in (163b) but not in the non-agentive case in (163a).

(163) a. * Bolezn' rebenka pugaet Mašu, čto možet
illness.NOM child.GEN frightens Masha.ACC that may
proizojti osložnenie.
happen complication.NOM
Lit.: 'The disease of the child frightens Masha that a complication may happen.'

b. Načal'nik pugaet Mašu, čto ej ponizjat
boss.NOM frightens Masha.ACC that her.ACC decrease
zarplatu.
salary.ACC
Lit.: 'The boss frightens Masha that her salary will be reduced.'

[67] See Knyazev 2012 for a different account of the data.

Given the similarity of this pattern to that observed with *grozit'* 'threaten', we expect the unacceptability of (163a) to follow from the Case requirement and the P_{CP} proposal. At first glance, this does not appear to be the case as the accusative Experiencer of the non-agentive *pugat'* 'frighten' is the holder of the proposition expressed by the complement, as shown by the contradiction in (164). This suggests that the licensing condition for P_{CP} is satisfied.

(164) # Bolezn' rebenka pugaet Mašu tem, čto možet
illness.NOM child.GEN frightens Masha.ACC it.INS that may
proizojti osložnenie, no ona ob ètom ne
happen complication.NOM but she.NOM about this.LOC not
podozrevaet.
suspects
Lit.: 'The disease of the child frightens Masha by the fact that a complication may happen but she doesn't have a clue about this fact.'

Recall, however, that P_{CP} also imposes a syntactic condition on adjunction, repeated in (165). I would like to suggest that it is this condition that is violated in examples like (163a). The reason is that the adjunction rule in (165) entails that P_{CP} can only adjoin from the complement position of V because of the properties of head movement. Yet it can be shown that the sentential complement of the non-agentive *pugat'* 'frighten' actually does not occupy the complement position of V.

(165) P_{CP} undergoes head movement to the immediately dominating V.

I will now show why this is the case. Let's think about the nature of the "stimulus" argument of the non-agentive *pugat'* 'frighten'. Given Reinhart's (2002) analysis of subject Experiencer verbs, there are potentially two ways to analyze it, either as a Cause (of emotion), i.e. [+c], or a Subject Matter of emotion, i.e. [–m]. In fact, Reinhart argues that object Experiencer verbs like *worry* contain both [+c] or [–m] clusters and the stimulus argument can in principle be merged as either of them. There are reasons, however, to believe that the non-agentive stimulus of *pugat'* 'frighten' is [–m] rather than a [+c]. If the non-agentive stimulus were a Cause (without also being a Subject Matter), then we would expect that a sentence like 'X frightens Y' would be interpreted in a way that X causes Y to experience fear without Y's fear being about X. Yet in a situation where Masha, unbeknownst to her, is given a fear-inducing drug, the sentence in (166) is infelicitous (it requires an interpretation where the pill is also the content of Masha's fear).

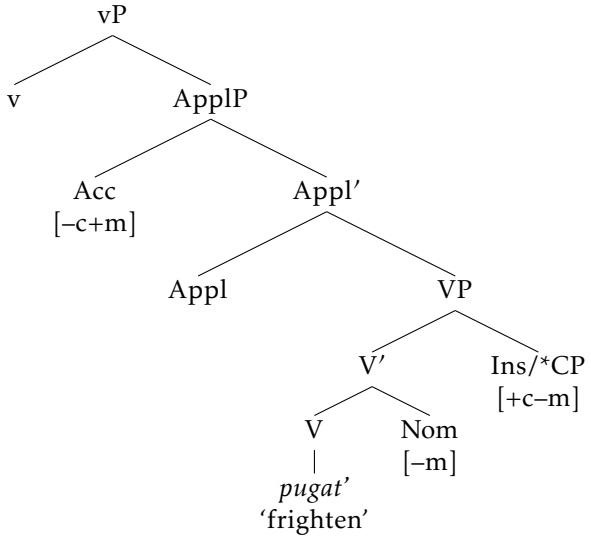
(166) Tabletka pugaet Mašu.
pill.NOM frightens Masha.ACC
'The pill makes Masha experience fear.'
(only: 'The pill frightens Masha.')

This suggests that the stimulus argument of the non-agentive *pugat'* 'frighten' is always [–m]. Note that we need to assume, following Reinhart, that the [+c] cluster is also present in the lexical entry for *pugat'* 'frighten', to account for its agentive use and also for the ACC-marking in both uses. This cluster, however, is frozen and cannot be realized in the non-agentive variant, as in Reinhart's (2002) analysis of verbs like *fascinate*.

Since the stimulus of the non-agentive *pugat'* 'frighten' is [–m], given Reinhart's (2002) mapping rules in (81), it will merge VP-internally in the complement position of V. This is sufficient to derive the fact that P_{CP} will not appear in the complement position and thus will fail to satisfy the condition in (165). We don't need to worry about the other arguments, but for concreteness sake I will assume the following VP-structure for the non-agentive *pugat'* 'frighten'. I take the Experiencer to be merged in the Spec,Appl position as before. As for the position of the instrumental phrase, I assume that it is merged as a sister to the [V-Stimulus] phrase to account for the fact it is c-commanded by the experiencer, as suggested by the Condition C violation in (167). The structure for the non-agentive *pugat'* 'frighten' can then be given as in (168).

(167) Èto pugaet ee$_{*i/j}$ tem, čto u Maši$_i$ možet
this.NOM frightens Masha.ACC it.INS that at Masha.GEN may
proizojti osložnenie.
happen complication.NOM
Lit.: 'This frightens her$_i$ by the possibility that Masha$_i$ can have a complication.'

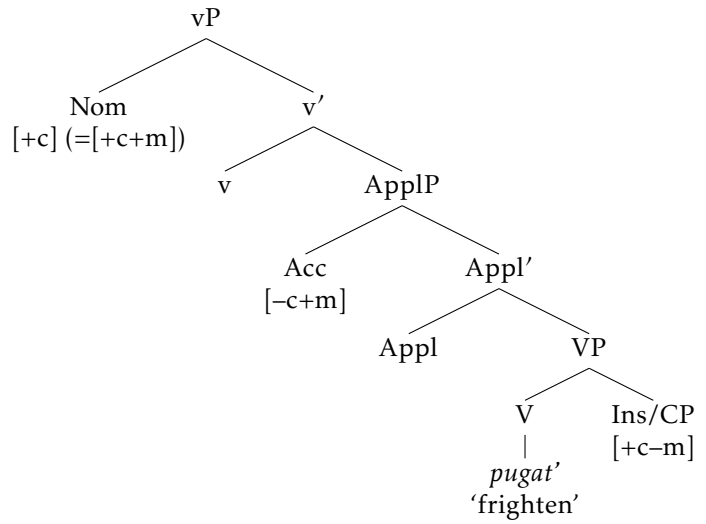
(168)



As for the agentive *pugat'* 'frighten', the stimulus argument can correspond to the [+c] cluster and can be merged in the Spec,v position in the usual way. As

a result, P_{CP} can be merged in the complement position of V and thus undergo adjunction in compliance with the condition in (165). The structure for the agentive *pugat'* 'frighten' is given in (169).

(169)



Summarizing, the lexical entry for *pugat'* 'frighten' will be ([+c], [–c+m], [+c–m], [–m]), where [+c] and [–m] are both possible mutually exclusive construals of the stimulus cluster. In the non-agentive variant the [–m] construal will be chosen so that the relevant cluster will be merged internally as [–m] and thus P_{CP}, forced out of the complement of V, will be blocked. In the agentive variant, the [+c] construal will be chosen so that the relevant cluster will be merged externally "making room" for P_{CP}.

To conclude, the adjunction requirement for P_{CP} presents a simple account of the unacceptability of a *čto*-clause with the non-agentive *pugat'* 'frighten'. The proposed account is supported by two considerations. First, note that examples like (163a) produce very strong unacceptability judgments, as opposed to comparatively milder violations observed with the non-agentive verbs *govorit'* 'say', *namekat'* 'hint' and *napominat'* 'remind' taking *čto*-clause complements. This follows from the fact that the adjunction condition in (165) is a syntactic condition and therefore its violations are expected to result in harsher contrasts.

Second, the reasoning behind this account can also be extended to account for the unacceptability of *čto*-clauses with stative verbs like *podozrevat'* 'suspect' in (170b) and *uvažat'* 'admire'/*cenit'* 'appreciate' in (171b), cf. the corresponding examples with *to*,*čto*-clauses in (170a)–(171a). These verb take a Theme ([–c–m]) argument, which will be merged in the complement of V. Therefore P_{CP} will have to appear in a different position (e.g., as the sister to the [V-Theme] constituent) and thus will not satisfy the adjunction condition,

resulting in the unacceptability of *čto*-clauses. Note that the subject of these verbs is an Experiencer and thus can be construed as the holder of the proposition expressed by the complement so there is no obstacle for the licensing condition on P_{CP}.

(170) a. Oni podozrevajut Vanju v tom, čto on ukral
they.NOM suspect Vanya.ACC in it.LOC that he.NOM stole
den'gi.
money.ACC
'They suspect Vanya of having stolen the money.'

b. * Oni podozrevajut Vanju, čto on ukral
they.NOM suspect Vanya.ACC that he.NOM stole
den'gi.
money.ACC
Intended: 'They suspect Vanya of having stolen the money.'

(171) a. Oni cenjat/uvažajut Vanju za to, čto on
they.NOM appreciate/admire Vanya.ACC for it.ACC that he.NOM
xorošij čelovek.
good person.NOM
'They appreciate/admire Vanya for being a good person.'

b. * Oni cenjat/uvažajut Vanju, čto on xorošij
they.NOM appreciate/admire Vanya.ACC that he.NOM good
čelovek.
person.NOM
Intended: 'They appreciate/admire Vanya for being a good person.'

The same will be true of the verbs *obvinjat'* 'accuse' and *rugat'* 'scold' in (172b)–(173b); cf. the corresponding examples with *to*,*čto*-clauses in (172a)–(173a).[68] The accusative arguments of the verbs do not have to be mentally involved, as shown by examples like (174a)–(174b). Therefore, given the marking rules in (81), the accusative arguments should be analyzed as [–c–m] and hence merged as the complement of V.[69]

[68] See Knyazev 2012 for a more detailed discussion of *rugat'* 'scold' and a different account of the data.

[69] Interestingly, examples in (172b)–(173b) become better when the accusative argument is realized as a destressed pronoun in the preverbal position, as shown in (ia)–(ib). Although I don't have a clear understanding of these facts, they might point in the direction of the proposed account if the pronominal object somehow vacates the complement of V position, making it available for the merger of P_{CP}.

(i) a. ? Vanja ee obvinjaet, čto ona beret ego veščі.
Vanya.NOM her.ACC accuses that she.NOM takes his things.ACC
'Vanya accuses her of taking his belongings.'

(172) a. Vanja obvinjaet Mašu v tom, čto ona beret
Vanya.NOM accuses Masha.ACC in it.LOC that she.NOM takes
ego vešči.
his things.ACC
'Vanya accuses Masha of taking his belongings.'

b. * Vanja obvinjaet Mašu, čto ona beret ego
Vanya.NOM accuses Masha.ACC that she.NOM takes his
vešči.
things.ACC
Intended: 'Vanya accuses Masha of taking his belongings.'

(173) a. Maša rugaet Vanju za to, čto on ploxo
Masha.NOM scolds Vanya.ACC for it.ACC that he.NOM badly
učitsja.
studies
'Masha scolds Vanya for being a poor student.'

b. * Maša rugaet Vanju, čto on ploxo učitsja.
Masha.NOM scolds Vanya.ACC that he.NOM badly studies
Intended: 'Masha scolds Vanya for being a poor student.'

(174) a. Vanja vo vsem obvinjaet gosudarstvo.
Vanya.NOM in everything.LOC accuses state.ACC
'Vanya accuses the state of evertything.'

b. Vanja rugaet pravitel'stvo za nerešitel'nost'.
Vanya.NOM scolds government.ACC for indecisiveness.ACC
'Vanya criticizes the government for indecisiveness.'

In fact, there is a general expectation that three-place verbs with accusative arguments will permit *čto*-clauses only if their accusative argument is mentally affected by the event and hence corresponds to the [–c+m] cluster, which, by assumption, is merged in a higher position than the complement of V (e.g. Spec of Appl head, for the sake of concreteness).[70] In this case P_{CP} can be merged as

b. ? Maša ego rugaet, čto on ploxo učitsja.
Masha.NOM him.ACC scolds that he.NOM badly studies
'Masha scolds Vanya for being a poor student.'

[70] The reverse, however, is not true. As pointed out by Ora Matushansky (p.c.), there are three-place verbs with mentally affected accusative arguments such as, e.g., *obidet'* 'offend' that disallow *čto*-clauses, as illustrated in (ia); cf. (ib). These data seem to suggest that sometimes P_{CP} must be merged outside the complement of VP even when this position is free. The reasons for this restriction require further investigation.

(i) a. * Maša obidela Vanju, čto zabyla ego pozdravit'.
Masha.NOM offended Vanya.ACC that not him.ACC congratulated
Intended: 'Masha offended Vanya by forgetting to congratulate him.'

the complement of V and thus potentially satisfy the adjunction condition in (165). This expectation is confirmed by the behavior of verbs *ubedit'* 'convince', *predupredit'* 'warn' and *izveštit'*/*opovestit'* 'notify', illustrated in (175b)–(175c).

(175) a. Maša ubedila Vanju (v tom), čto ona byla
Masha.NOM convinced Vanya.ACC in it.LOC that she.NOM was
prava.
right
'Masha convinced Vanya (of the fact) that she was right.'

b. Vanja predupredil Mašu (o tom), čto on
Vanya.NOM warned Masha.ACC about it.LOC that he.NOM
opozdaet.
will be late
'Vanya warned Masha (about the fact) that he will be late.'

c. Professor izvestil/opovestil studentov (o tom), čto
professor.NOM notified students.ACC about it.LOC that
zanjatie otmenjaetsja.
class.NOM is cancelled
'The professor notified the students (about the fact) that the class is cancelled.'

All these verbs describe attempts to change the knowledge state of the accusative argument and, consequently, entail the involvement of the mental state (i.e. [/+m] specification) of the accusative argument.[71] As a result, the accusative argument will be analyzed as [–c+m] and hence merged in a higher position, thus allowing P_{CP} to appear in the complement of V.

b. Maša obidela Vanju tem, čto zabyla ego pozdravit'.
Masha.NOM offended Vanya.ACC it.INS that not him.ACC congratulated
'Masha offended Vanya by forgetting to congratulate him.'

[71] Note, however, that whether the attempt is successful depends on the meaning of the verb. Whereas in the case of *ubedit'* 'convince', the change of mental state is required (see (121c) from section 3.4.3 above), in the case of *predupredit'* 'warn' and *izveštit'*/*opovestit'* 'notify' the mental state can but need not be changed, as shown by the fact that the examples in (ia)–(ib) have a non-contradictory interpretation. Thus even though the accusative arguments of all the relevant verbs are [–c+m], only the accusative object of *ubedit'* 'convince' is the holder and only with this verb P_{CP} will be interpreted as **hold**; with the other verbs P_{CP} will have the **utter** interpretation. This implies that the "control" of P_{CP} is semantic rather than syntactic (i.e. by the closest c-commanding antecedent).

(i) a. Maša (po-anglijski) predupredila dokladčika, čto u nego ostalos' pjat'
Vanya.NOM in English warned Masha.ACC that at him.GEN left five
minut, no on ne ponjal.
minutes.GEN but he.NOM not understood
'Masha warned the speaker (in English) that he has five minutes left but he didn't understand this.'

3.6 Summary and interim conclusion

In this chapter I discussed a number of *čto*-clause complement-taking verbs that display an interesting pattern, which I referred to as the agentivity puzzle, namely, these verbs allow *čto*-clause complements only when they are agentive. I proposed an account of the agentivity puzzle based on the Case requirement of *čto*-clauses. Given the fact that all of these verbs also disallow Accusative complements in their non-agentive uses, the Case requirement (coupled with certain assumptions about Case from the Introduction) forces the *čto*-clause complements to be licensed by a null preposition (P_{CP}). I developed a proposal about the nature of P_{CP}, building on Chomsky's principle of Full Interpretation and inspired by Pustejovsky's (1995) proposal about the recovery of the meaning of 'elided' verbs. I proposed the licensing condition for P_{CP}, according to which P_{CP} requires the presence of an argument with a particular semantic property (interpreted as the utterer or the holder of the proposition expressed by the sentential complement). Given this proposal, the agentivity puzzle follows from the licensing conditions on P_{CP}, which are not satisfied in the non-agentive uses of the agentivity puzzle verbs.

I also ruled out a selection-based account of the agentivity puzzle by arguing that the agentive and the non-agentive variants of the relevant verbs should belong to the same lexical entry (which I showed by providing a detailed analysis of these verbs within Reinhart's (2002; To appear) Theta System) and thus share selectional properties. Consequently, the agentivity puzzle cannot be accounted for by selection and requires an independent account. To conclude, the agentivity puzzle provides strong support for the Case requirement of *čto*-clauses.

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b. Professor izvestil/opovestil studentov (po èlektronnoj počte), čto
professor.NOM notified students.ACC by e-mail.DAT that
zanjatie otmenjaetsja, no oni ne pročitali pis'mo.
class.NOM is cancelled but they.NOM not read letter.ACC
'The professor notified the students (by email) that the class is cancelled but they did not read the email.'

CHAPTER 4

Restrictions on clausal complements of nouns

4.1 Some introductory remarks

The Case requirement of *čto*-clauses coupled with the P_{CP} proposal makes a prediction about the distribution of *čto*-clause complements of nouns.[1] Given that nouns do not assign structural Accusative Case in Russian, we expect that *čto*-clauses will be licensed as complements only in those positions where P_{CP} is also licensed. As I will show in this chapter, this prediction is confirmed.

In order to establish this fact, I will consider two classes of nouns. First, I will look at nominalizations of subject Experiencer predicates (or SubjExp nominalizations), exemplified by the nouns *nadežda* 'hope', *uverennost'* 'conviction' and *somnenie* 'doubt'. Second, I will look at what I will call the PROOF-class nouns exemplified by *dokazatel'stvo* 'proof', *svidetel'stvo* 'evidence' and *podtverždenie* 'confirmation'.

The choice of these two classes is not accidental. Both of these classes are expected to take true arguments and thus avoid the confound created by the possible appositive analysis of the sentential complement. The appositive analysis of sentential complements of nouns was famously proposed by Stowell (1981), who argued that sentential complements of nouns are different from the corresponding complements of verbs in that they are not arguments of the predicate but are appositive modifiers specifying or explicating the content of the nominal, which is manifested in their ability to appear in the post-copular position in constructions such as (1a)–(1b).

[1] The content of this chapter is largely based on Knyazev 2014, where I discuss similar data but offer a slightly different account.

(1) a. John's claim was that he would win.
b. Paul's explanation was that he was temporarily insane.

Despite the intended generality of Stowell's claim, it has been subsequently argued to be restricted to result, or object, nominals (see Grimshaw 1990, Moulton 2009). Accordingly, (at least) two classes of nominals have been identified as taking true sentential arguments. These classes closely correspond to the Russian nominals that I will discuss in this chapter. First, there are (state) nominalizations of subject Experiencer adjectives examplified in English by nominals such as *happiness* and *awareness*, etc.[2] As noted by Stowell himself, these nominals do not pattern with *claim* and *explanation* in that they do not allow their complement in construction with the copula, as shown in (2a)–(2b), which suggests that they are not appositive modifiers but true arguments.

(2) a. * Bill's happiness is that Charles is leaving.
b. * Bill's awareness was that his mother was ill.

Similar data obtain for the Russian SubjExp nominalizations, as illustrated by the construction with the copular verbs *zaključat'sja/sostojat'* 'consist (in)' in (3a)–(3c); cf. the acceptable examples with the result nominals *utveržden*ie 'claim' and *ob"jasnenie* 'explanation' in (4a)–(4b).[3]

(3) a. ?? Ego nadežda sostoit v tom, čto ona pridet
his hope.NOM consists in it.LOC that she.NOM will come
vovremja.
on time
Lit.: 'His hope is that she will come on time.'
b. ?* Ee uverennost' zaključaetsja v tom, čto oni
her conviction.NOM consists in it.LOC that they.NOM
pobedjat.
will win
Lit.: 'Her conviction is that they will win.'
c. * Moe somnenie zaključaetsja v tom, čto on priedet.
my doubt.NOM consists in it.LOC that he.NOM will come
Lit.: 'My doubt is that he will come.'

[2] Another example is the nominalization *knowledge* cited by Grimshaw (1990); see (i).

(i) The knowledge was that Dukakis was ahead.

[3] We may note that examples in (3a)–(3b) are not entirely unacceptable, with nouns *nadežda* 'hope' and *uverennost'* 'conviction' being slightly better in this construction than *somnenie* 'doubt'. This might incidentally suggest that complement clauses with these nominals can marginally be adjoined and interpreted as appositives. See section 4.5.

(4) a. Moe utverždenie zaključaetsja v tom, čto ètot argument
my claim.NOM consists in it.LOC that this argument.NOM
slab.
weak
'My claim is that this argument is weak.'

b. Ee ob"jasnenie zaključaetsja v tom, čto u nee
her explanation.NOM consists in it.LOC that at her.GEN
net deneg.
is not money.GEN
'Her explanation is that she has no money.'

The second class of nouns that take true sentential arguments is comprised of subject nominalizations of the so-called bisentential predicates (e.g. *prove*, *confirm*) and sometimes referred to as the PROOF-class. This class is exemplified in English by nominals such as *proof*, *confirmation*, *indication*, *evidence* (see Safir 1985 and also Moulton 2009 for some illuminating discussion).[4] These nominals disallow their *that*-clause complement to appear in the post-copular position with the same meaning as in complement constructions such as (5b), i.e. identifying what was proved. This is shown in (5a). Examples such as (5a) are only possible on a different reading, where the *that*-clause identifies the original subject and means 'Smith's being the culprit proved some other thing'; see Safir 1985 for the original observation and also Moulton 2009.

(5) a. * The proof was that Smith was the culprit.

b. The proof that Smith was the culprit (disappeared).
(Moulton 2009)

The Russian PROOF-class nominals show a similar pattern. The post-copular clause in (6a) cannot have the same relation to the nominal as it does in as a complement in examples like (6b). It can only relate to the original subject.

(6) a. * Dokazatel'stvo/svidetel'stvo/podtverždenie zaključaetjsa v
proof.NOM/evidence.NOM/confirmation.NOM consists in
tom, Vani net doma.
it.LOC that Vanja.GEN is not home
Lit.: '*The proof/evidence/confirmation is that Vanya is not at home.' (referring to what is proved)

b. Dokazatel'stvo/svidetel'stvo/podtverždenie togo, čto
proof.NOM/evidence.NOM/confirmation.NOM it.GEN that
Vani net doma, bylo polučeno.
Vanja.GEN is not home was received
'The proof/evidence/confirmation that Vanya is not at home was received.'

[4] Pesetsky and Torrego (2004) also cite *demonstration*.

To summarize, I will take the inability of the sentential complement to be predicated across the copula of the Russian SubjExp nominalizations and PROOF-class nouns to indicate that these two classes of nominals take true sentential arguments. The *čto*-clause complements of these nominals are thus expected to project a DP-layer and be subject to the Case requirement, just like the corresponding sentential complements of verbs.[5]

4.2 Nominalizations of subject Experiencer predicates

4.2.1 The restriction on *čto*-clause complements

Russian SubjExp nominalizations can take *čto*-clause complements only in a semantically (and lexically) restricted set of linguistic contexts, which I will refer to as the "CP-licensing constructions". From the semantic point of view, these constructions can be broadly characterized as falling into one of the major categories given in (7).[6]

(7) Semantic varieties of the CP-licensing constructions:

- *X* has the propositional attitude (e.g. hope, conviction, etc.) that *p* (see (8a), (8b));
- *X* comes to have the propositional attitude that *p* (see (8c));
- *Y* causes *X* to have the propositional attitude that *p* (see (8d), (8e));
- *X* expresses the propositional attitude that *p* (see (8f));

Below I illustrate these semantic varieties with some of the constructions involving the nominals *nadežda* 'hope' (*nadejat'sja* (*na* ACC) 'hope'), *uverennost'*

[5] In Grimshaw's (1990) theory what she calls (complex) event nominalizations also take true arguments, which, however, cannot be realized as *that*-clauses because N is a defective theta-marker, see (i). This claim is contested by Pesetsky and Torrego (2004), who suggest that examples like (i) are disallowed for other reasons, implying that such nominals do indeed take *that*-clause complements. The discussion of complex event nominals is greatly complicated by the fact that examples discussed by Grimshaw and Pesetsky and Torrego are ambiguous between the result and complex event nominalization reading. Because of the complexity of the issue, I will not use (the Russian counterparts of) such nominals in my discussion of the restrictions on *čto*-clause complements of nouns.

(i) * Their frequent/constant announcement that they were the greatest eventually became tiresome.

(Grimshaw 1990)

[6] The list in (7) is not exhaustive but these are the most common types.

'conviction' (< *uveren* (*v* LOC) 'certain'), and *somnenie* 'doubt' (*somnevat'sja* (*v* LOC) 'doubt'.[7]

(8) a. U Maši est' { uverennost' / nadežda / somnenie},
at Masha.GEN is conviction.NOM hope.NOM doubt.NOM
čto èto slučits'ja
that this.NOM will happen

'Masha has the conviction/hope/understanding/doubt that this will happen.'

b. Maša leleet/pitaet nadeždu, čto on ee vse ešče
Masha cherishes/feeds hope.ACC that he.NOM her.ACC all still
ljubit.
loves

'Masha cherishes the hope that he still loves her.'

c. U Dimy pojavljatsja/voznikaet { uverennost' /
at Dima.GEN appears/emerges conviction.NOM
nadežda / somnenie}, čto on pobedit.
hope.NOM doubt.NOM that he.NOM will win

'Dima gets the conviction (becomes hopeful/doubtful) that he will win.'

d. Èto daet/vnušaet Ane { uverennost' / nadeždu},
this.NOM gives/instills Anja.DAT conviction.ACC hope.ACC
čto vse budet xorošo.
that all.NOM will be good

'This instills in Anja the conviction/hope that everything will be fine.'

e. Èto vseljaet v Anju { uverennost' / nadeždu}, čto
this.NOM instills in Anja.ACC conviction.ACC hope.ACC that
vse budet xorošo.
all.NOM will be good

'This instilled in Anja the conviction/hope that everything will be fine.'

f. Politik vyrazil/vyskazal { uverennost' /
politician.NOM expressed/pronounced conviction.ACC
nadeždu / somnenie}, čto problema budet rešena.
hope.ACC doubt.ACC that problem.NOM will be solved

'The politician expressed the conviction/hope/doubt that the problem will be solved.'

---

[7] Other nouns showing similar restrictions are *ponimanie* (GEN) 'understanding' < *ponimat'* (ACC) 'understand', *osoznanie* (GEN) 'realization' < *osoznavat'* (ACC) 'realize', *vera* 'faith' < *verit'* (*v* LOC) 'believe'), *ubeždennost'* 'conviction' < *ubežden'* (*v* LOC) 'convinced'.

The CP-licensing constructions have two important properties relating to the realization and interpretation of the Experiencer argument of the SubjExp nominal. They are formulated in (9a)–(9b).[8]

(9) a. *The non-overtness property*
The Experiencer of the SubjExp nominal in the CP-licensing constructions cannot be overtly realized (as the possessor) within the projection of the nominal;

b. *The co-construal property*
The Experiencer of the SubjExp nominal in the CP-licensing constructions is co-construed with an argument of the verb that takes the SubjExp nominal as its complement.

I illustrate these properties below. First of all, note that in the CP-licensing constructions in (8a)–(8e) both properties are necessarily satisfied, as shown in (10a)–(10e). The possessor argument cannot be realized and it must be co-construed with one of the arguments of the higher verb.

(10) a. U Maši$_i$ est' { $\varnothing_i$ / *svoja$_{i/j}$ / *ee$_{i/j}$} uverennost'...
at Masha.GEN is her.REFL her conviction.NOM
'Masha has the conviction....'

b. Maša leleet/pitaet { $\varnothing_i$ / *svoju$_{i/j}$ / *ee$_{i/j}$} nadeždu,
Masha.NOM cherishes/feeds her.REFL her hope.ACC
čto on ee vse ešče ljubit.
that he.NOM her.ACC all still loves
'Masha cherishes the hope that he still loves her.'

c. U Dimy pojavljatsja/voznikaet { $\varnothing_i$ / *svoja$_{i/j}$ / *ego$_{i/j}$}
at Dima.GEN appears/emerges his.REFL his
uverennost'
conviction.NOM
'Dima gets the conviction...'

d. Èto daet Ane$_i$ { $\varnothing_i$ / *svoju$_{i/j}$ / *ee$_{i/j}$} nadeždu...
this.NOM gives Anja.DAT her.REFL her hope.ACC
'This instills in Anja the hope....'

e. Èto vseljaet v Anju$_i$ { $\varnothing_i$ / *svoju$_{i/j}$ / *ego$_{i/j}$}
this.NOM instills in Anja.ACC her.REFL her
uverennost'...
conviction.ACC
'This instilled in Anja the conviction...'

[8] The notion of co-construal comes from Safir's (1991) article discussing somewhat similar constructions.

As for the construction in (8f), the Experiencer argument is co-construed with the subject but can be overtly realized (as the possessor), as shown in (11). However, in its presence a *čto*-clause becomes degraded, as shown in (11b), and instead requires a *to*,*čto*-clause embedded in a PP, as in (11a).[9] This demonstrates the independent relevance of the non-overtness property for the licensing of CP, assuming that the co-construal property is satisfied.

(11) a. Politik$_i$ vyrazil/vyskazal { ∅$_i$ / svoju$_i$ / politician.NOM expressed/pronounced his.REFL *ego$_{i/j}$} uverennost' v tom, čto problema budet his conviction.ACC in it.LOC that problem.NOM will rešena.
solved

'The politician expressed his conviction that the problem will be solved.'

b. * Politik$_i$ vyrazil/vyskazal svoju$_i$
politician.NOM expressed/pronounced his.REFL
uverennost', čto problema budet rešena.
conviction.ACC that problem.NOM will solved

Intended: 'The politician expressed his conviction that the problem will be solved.'

In (12)–(15) I give examples where the Experiencer argument is realized as a free possessive pronoun.[10] These constructions do not satisfy either of the properties in (9), hence the sentential argument cannot be realized as *čto*-clause, as shown in (12a)–(15a), but has to appear as *to*,*čto*-clause embedded in PP, as shown in (12b)–(15b).

(12) a. * Èto usililo/ustranilo/razvejalo ix somnenija,
this.NOM strengthened/removed/dissolved their doubts.ACC
čto rešenie budet dostignuto.
their solution.NOM will be reached

Intended: 'This strengthened/removed/dissolved their doubts that the solution will be reached.'

[9] Although I mark sentences like (11b) with a star as ungrammatical, speakers' grammaticality judgments somewhat vary as to the degree of their unacceptability. The same concerns most of the other sentences with *čto*-clause complements of nouns outside the CP-licensing constructions. Also note that examples involving *somnenie* 'hope' taking *čto*-clause complements generally produces somewhat stronger grammaticality judgments than *nadežda* 'hope' and *uverennost'* 'conviction'. For some discussion of the graded nature of grammaticality judgments regarding such examples see section 4.5.

[10] In (12a)–(12b) I use the nominal in the plural for the construction to sound more natural.

b. Èto usililo/ustranilo/razvejalo ix somnenija
this.NOM strengthened/removed/dissolved their doubts.ACC
v tom, čto rešenie budet dostignuto.
in it.LOC that solution.NOM will be reached
'This strengthened/removed/dissolved their doubts that the solution will be reached.'

(13) a. * Ja ne razdeljaju/ponimaju ego uverennost', čto
I.NOM not share/understand his conviction.ACC that
èkonomika bystro vosstanovitsja.
economy.NOM fast will recover
Intended: 'I do not share/understand his conviction that the economy will recover fast.'

b. Ja ne razdeljaju/ponimaju ego uverennost' v tom,
I.NOM not share/understand his conviction.ACC in it.LOC
čto èkonomika bystro vosstanovitsja.
that economy.NOM fast will recover
'I do not share/understand his conviction that the economy will recover fast.'

(14) a. * Menja udivljaet/poražaet ego uverennost', čto on
me.ACC surprises/strikes his conviction.ACC that he.NOM
smožet èto sdelat'.
will be able this.ACC to do
Intended: 'His conviction that he will be able to do it surprises/strikes me.'

b. Menja udivljaet/poražaet ego uverennost' v tom, čto
me.ACC surprises/strikes his conviction.ACC in it.LOC that
on smožet èto sdelat'.
he.NOM will be able this.ACC to do
'His conviction that he will be able to do it surprises/strikes me.'

(15) a. * Èto ukrepljaet/podpityvaet ix nadeždu, čto vse
this.NOM strengthens/feeds their hope.ACC that all.NOM
obojdetsja.
will work out
Intended: 'This strengthens/feeds their hope that everything will work out.'

b. Èto ukrepljaet/podpityvaet ix nadeždu na to,
this.NOM strengthens/feeds their hope.ACC on it.ACC
čto vse obojdetsja.
that all.NOM will work out
'This strengthens/feeds their hope that everything will

work out.'

Finally, when the Experiencer argument is implicit and has a generic interpretation, the sentential argument cannot be realized as a *čto*-clause either and has to appear as a *to*,*čto*-clause embedded in a PP, as shown in (12b)–(15b). This demonstrates the independent relevance of the co-construal property (not satisfied by this construction) for the licensing of the CP.

(16) a. * Èto usililo/ustranilo/razvejalo $\varnothing_{\text{GEN}}$ somnenija,
this.NOM strengthened/removed/dissolved doubts.ACC
čto rešenie budet dostignuto.
that solution.NOM will be reached
Intended: 'This strengthened/removed/dissolved the doubts that the solution will be reached.'

b. Èto usililo/ustranilo/razvejalo $\varnothing_{\text{GEN}}$ somnenija
this.NOM strengthened/removed/dissolved doubts.ACC
v tom, čto rešenie budet dostignuto.
in it.LOC that solution.NOM will be reached
'This strengthened/removed/dissolved their doubts that the solution will be reached.'

(17) a. * Ja ne razdeljaju/ponimaju $\varnothing_{\text{GEN}}$ uverennost', čto
I.NOM not share/understand conviction.ACC that
èkonomika bystro vosstanovitsja.
economy.NOM fast will recover
Intended: 'I do not share/understand the conviction that the economy will recover fast.'

b. Ja ne razdeljaju/ponimaju $\varnothing_{\text{GEN}}$ uverennost' v tom,
I.NOM not share/understand conviction.ACC in it.LOC
čto èkonomika bystro vosstanovitsja.
that economy.NOM fast will recover
'I do not share/understand the conviction that the economy will recover fast.'

(18) a. * Èto ukrepljaet/podpityvaet $\varnothing_{\text{GEN}}$ nadeždu, čto vse
this.NOM strengthens/feeds hope.ACC that all.NOM
obojdetsja.
will work out
Intended: 'This strengthens/feeds the hope that everything will work out.'

b. Èto ukrepljaet/podpityvaet $\varnothing_{\text{GEN}}$ nadeždu na to,
this.NOM strengthens/feeds hope.ACC on it.ACC
čto vse obojdetsja.
that all.NOM will work out
'This strengthens/feeds the hope that everything will work out.'

4.2.2 The abstract incorporation analysis of the CP-licensing constructions

In order to show how the Case requirement of clauses and the P_{CP} proposal account for the restriction on *čto*-clause complements with SubjExp nominalizations, I will first need to present my analysis of the CP-licensing constructions.

My analysis will largely follow (with some modifications) Lyutikova's (2010) account of a similar class of constructions in Russian, which take infinitive complements. Lyutikova discusses what she calls collocations that consist of an action noun appearing as a complement of a ("light") verb that expresses some basic semantic relation (e.g. 'perform', etc.) and taking an infinitive complement. Some of these collocations are illustrated in (19a)–(19b).

(19) a. On vyrazil želanie pozdravit' Mašu.
he.NOM expressed desire.ACC to congratulate Masha.ACC
'He expressed the desire to congratulate Masha.'

b. Ona prinjala rešenie pozvonit' Dime.
she.NOM took decision.ACC to call Dima.DAT
'She took a decision to call Dima.'

Lyutikova argues that these collocations have a special syntactic property that sets them apart from other constructions where the respective nominals with infinitive complements appear with ordinary lexical verbs, illustrated in (20a)–(20b).

(20) a. On peresilil želanie pozvonit' Dime.
he.NOM overcame desire.ACC to call Dima.DAT
'He overcame the desire to call Dima.'

b. Ona obj"asnila svoe rešenie pozdravit'
she.NOM explained her.REFL decision.ACC to congratulate
Mašu.
Masha.ACC
'She explained her decision to call Masha.'

She argues that whereas nominals in non-collocational constructions in (20) necessarily project a DP structure, nominals in collocations in (19) do not have to project a DP structure and can remain NPs (although the projection of a DP structure is also possible). One of the arguments that she offers for this analysis is that only collocations allow extraction out of infinitive complements, as shown in (21a)–(21b).[11] The corresponding extractions are not licit in non-collocational constructions, as shown in (22a)–(22b).

(21) a. Komu on vyrazil želanie pozvonit'?
whom.DAT he.NOM expressed desire.ACC to call
Lit.: 'Who did he express the desire to call *t*?'

[11] Here and after I change the wording in Lyutikova's (2010) examples for ease of presentation.

b. Kogo ona prinjala rešenie pozdravit'?
whom.ACC she.ACC took decision.ACC to congratulate
Lit.: 'Who did she take a decision to congratulate *t*?'

(22) a. ?* Komu on peresilil želanie pozvonit'?
whom.DAT he.NOM overcame desire.ACC to call
Lit.: 'Who did he overcome the desire to call *t*?'

b. * Kogo ona obj"asnila svoe rešenie
whom.ACC she.ACC explained her.REFL decision.ACC
pozdravit'?
to congratulate
Lit.: 'Who did she explain her desire to congratulate *t*?'

Given that DP universally blocks extraction, as argued by Davies and Dubinsky (2003), the data in (21)–(22) straightforwardly follow from Lyutikova's (2010) analysis. The underlying assumption of this analysis is, of course, that Russian has DP despite the lack of definite article. One strong argument in favor of that is that Russian blocks any extraction from nominals with overt elements of the D projection such as demonstratives and possessives, as argued in Pereltsvaig 2007 (see also Bailyn 2011 for a similar view and also Rappaport 2001 for Polish).

Another argument Lyutikova (2010) cites in favor of the lack of the DP structure in collocational constructions in (19) is that nominals in such constructions lack some standard referential properties such as the ability to serve as an antecedent for a referential pronoun. This is shown in (23a)–(23b); note that the examples contain extractions to ensure that the nominals do not project DP. The data in (23) again follow straightforwardly under the standard assumption that only DPs but not NPs can refer; see, e.g. Pereltsvaig 2006.

(23) a. * Kogo on vyrazil želanie$_i$ pozdravit' i
whom.ACC he.NOM expressed desire.ACC to congratulate and
naskol'ko ono$_i$ silnoe?
how it.NOM strong
Lit.: 'Who did he express the desire$_i$ to congratulate *t* and how strong is it$_i$?'

b. * Komu ona prinjala rešenie$_i$ pozvonit' i
whom.ACC she.ACC took decision.ACC to call and
kogo ono$_i$ rasstroilo?
who.ACC it.NOM upset
Lit.: 'Who did she take a decision$_i$ to call *t* and who did it$_i$ upset?'

Given Lyutikova's (2010) reasoning, we can show, based on similar arguments, that the nominals in the CP-licensing constructions in (8) also allow

for an NP-analysis, whereas in the non-CP-licensing constructions they are uniformly DPs. First, the CP-licensing constructions allow extraction of the PP-complement of the nominal, as I show in (24a)–(24e). (Note that we cannot use extraction out of sentential complements because *čto*-clauses generally disfavor extraction; see Khomitsevich 2008).

(24) a. V čem u Maši est' uverennost'/somnenie?
in what.LOC at Masha.GEN is conviction.NOM/doubt.NOM
'What does Masha have the conviction of/doubt in?'

b. Na čto Maša leleet/pitaet nadeždu?
on what.ACC Masha cherishes/feeds hope.ACC?
'What does Masha cherish hope for?'

c. V čem u Dimy pojavljatsja/voznikaet uverennost'?
in what.LOC at Dima.GEN appears/emerges conviction.NOM
'What does Dima get conviction of?'

d. Na čto èto daet/vnušaet ej nadeždu?
on what.LOC this.NOM gives/instills her.DAT hope.ACC
'What does this instills in her hope for?'

e. V čem politik vyrazil/vyskazal somnenie?
in what.LOC politician.NOM expressed/pronounced doubt.ACC
'What did the politician express doubt in?'

This is in stark contrast with the non-CP-licensing constructions, which block extraction. This is illustrated in (25a)–(25d).[12] Similar data obtain for examples with implicit generic Experiencers, although the judgments are not as robust. The contrast between the CP-licensing constructions in (24) and the non-CP-licensing constructions in (25)–(26) follows under the proposed analysis if complements cannot be extracted out of DP; see Bailyn 2011.

(25) a. * V čem èto usililo/ustranilo/razvejalo ix
in what.LOC this.NOM strengthened/removed/dissolved their
somnenija?
doubts.ACC

b. * V čem ty razdeljaeš'/ponimaješ' ego
in what.LOC you.NOM share/understand his
uverennost'?
conviction.ACC?

c. * V čem tebja udivljaet/poražaet ego uverennost'?
in what.LOC me surprises/strikes his conviction.NOM

d. * Na čto èto ukrepljaet/podpityvaet ix nadeždu?
on what.ACC this.NOM strengthens/feeds their hope.ACC

[12] Note that in some of these examples *v čem* allows for irrelevant construal as the matrix adjunct with the meaning 'in what aspect'.

(26) a. * V čem èto usililo/ustranilo/razvejalo $\varnothing_{\text{GEN}}$
in what.LOC this.NOM strengthened/removed/dissolved
somnenija?
doubts.ACC

b. * V čem ty razdeljaeš'/ponimaješ' $\varnothing_{\text{GEN}}$ uverennost'?
in what.LOC you share/understand conviction.ACC?

c. * V čem tebja udivljaet/poražaet $\varnothing_{\text{GEN}}$ uverennost'?
in what.LOC me surprises/strikes conviction.NOM

d. * Na čto èto ukrepljaet/podpityvaet $\varnothing_{\text{GEN}}$ nadeždu?
on what.ACC this.NOM strengthens/feeds hope.ACC

Secondly, we can show that the nominals in the CP-licensing constructions are non-referential when they take *čto*-clauses.[13] For most of the constructions we have data parallel to the that of collocational constructions in (23). A referential pronoun cannot refer back to the nominal, as shown in (27a)–(27c).

(27) a. * Oni lelejut/pitajut nadeždu$_i$, čto on priedet.
they.NOM cherish/feed hope.ACC that he.NOM will come
Ona$_i$ očen' silnaja.
she.NOM very strong
Intended: 'He cherishes the hope$_i$ that she will come. It$_i$ is very strong.'

b. * Èto daet/vnušaet emu uverennost'$_i$, čto vse
this.NOM gives/instills him.DAT conviction.ACC that all.NOM
budet xorošo. Ona$_i$ očen' silnaja.
will be good she.NOM very strong
Intended: 'This instills in him the conviction$_i$ that everything will be fine. It$_i$ is very strong.'

c. * Politik vyrazil/vyskazal somnenie$_i$, čto
politician.NOM expressed/pronounced doubt.ACC that
problema budet rešena. Ono$_i$ vsex udivilo.
problem.NOM will be solved it.NOM all.ACC surprised
Intended: 'The politician expressed the doubt$_i$ that the problem will be solved. It$_i$ surprised everyone.'

The possessive construction with existential *byt'* 'be' and other copula-like verbs pass the same test when negated, as shown in (28a)–(28b). This avoids the well-known confound, according to which quantified (i.e. non-referential) variables may serve as antecedents to referential pronouns in non-negative contexts (cf. *Someone$_i$ has come. She$_i$/he$_i$...* vs. *Noone$_i$ has come. She$_{*i}$/he$_{*i}$...*).

[13] I am grateful to Ora Matushansky for discussing these issues with me.

(28) a. *? U Maši bol'še net uverennosti$_i$, čto èto
at Masha.GEN more is not conviction.GEN that this.NOM
slučits'ja, xotja ona$_i$ byla očen' silnaja.
will happen although she.NOM was very strong
Intended: 'Masha has no conviction$_i$ that this will happen anymore although it$_i$ was very strong.'

b. *? U Dimy bol'še net somnenij$_i$, čto on pobedit,
at Dima.GEN more is not doubts.GEN that he.NOM will win
xotja oni$_i$ byli očen' silnye.
although they.NOM were very strong
Intended: 'Dima has no more doubts$_i$ that he will win although they$_i$ were very strong.'

In contrast, in the non-CP-licensing constructions the nominal can antecede a referential pronoun, as shown in (29a)–(29d).

(29) a. Èto usilivaet ego somnenija$_i$ v tom, čto
this.NOM strengthens his doubts.ACC in it.LOC that
rešenie budet dostignuto. Xotja oni$_i$ i
solution.NOM will be reached although they.NOM PRT
bez togo silnye.
without it.GEN strong
'This strengthens his doubts$_i$ that the solution will be reached. Although they$_i$ are already very strong'

b. Ja ne razdeljaju/ponimaju ego uverennost'$_i$ v tom,
I.NOM not share/understand his conviction.ACC in it.LOC
čto èkonomika bystro vosstanovitsja. No ona$_i$ očen'
that economy.NOM fast will recover but she.NOM very
silnaja.
strong
'I do not share his conviction$_i$ that the economy will recover fast. But it$_i$ is very strong.'

c. Menja udivljaet/poražaet ego uverennost'$_i$ v tom, čto
me.ACC surprises/strikes his conviction.NOM in it.LOC that
on smožet èto sdelat'. Ja ee$_i$ ne
he.NOM will be able this.ACC to do I her.ACC not
ponimaju.
understand
'His conviction$_i$ that he will be able to do it surprises/strikes me. I do not understand it$_i$.'

d. Èto ukrepljaet/podpityvaet ix nadeždu$_i$ na to,
this.NOM strengthens/feeds their hope.ACC on it.ACC

čto vse obojdetsja. Xotja ona$_i$ i bez
that all.NOM will work out although she.NOM PRT without
togo silnaja.
it.GEN strong

'This strengthens/feeds their hope$_i$ that everything will work out. Although it$_i$ is already strong.'

Similar data also obtain for the corresponding construction with implicit generic Experiencers. This is shown in (30a)–(30d).

(30) a. Èto usilivaet $\varnothing_{GEN}$ somnenija$_i$ v tom, čto
this.NOM strengthens doubts.ACC in it.LOC that
rešenie budet dostignuto. Xotja oni$_i$ i
solution.NOM will be reached although they.NOM PRT
bez togo silnye.
without it.GEN strong

'This strengthens the doubts$_i$ that the solution will be reached. Although they$_i$ are already very strong'

b. Ja ne razdeljaju/ponimaju $\varnothing_{GEN}$ uverennost'$_i$ v tom,
I.NOM not share/understand conviction.ACC in it.LOC
čto èkonomika bystro vosstanovitsja. No ona$_i$ očen'
that economy.NOM fast will recover but she.NOM very
silnaja.
strong

'I do not share the conviction$_i$ that the economy will recover fast. But it$_i$ is very strong.'

c. Menja udivljaet/poražaet $\varnothing_{GEN}$ uverennost'$_i$ v tom, čto
me.ACC surprises/strikes conviction.NOM in it.LOC that
on smožet èto sdelat'. Ja ee$_i$ ne
he.NOM will be able this.ACC to do I.NOM her.ACC not
ponimaju.
understand

'The conviction$_i$ that he will be able to do it surprises/strikes me. I do not understand it$_i$.'

d. Èto ukrepljaet/podpityvaet $\varnothing_{GEN}$ nadeždu$_i$ na to,
this.NOM strengthens/feeds hope.ACC on it.ACC
čto vse obojdetsja. Xotja ona$_i$ i bez
that all.NOM will work out although she.NOM PRT without
togo silnaja.
it.GEN strong

'This strengthens/feeds the hope$_i$ that everything will work out. Although it$_i$ is already strong.'

Given the extraction and referentiality data above, we can conclude that nominals in the CP-licensing constructions indeed do not project DP, just like the corresponding nominals in Lyutikova's (2010) collocational constructions. This immediately explains the non-overtness property in (9a) assuming that overt possessors require DP structure.

In order to capture the co-construal property of the CP-licensing constructions in (9b), we need to go back to Lyutikova's (2010) analysis of collocational constructions. Lyutikova argues that apart from not projecting DP, collocational constructions also have a special thematic property. In particular, she proposes that the external argument of the nominal transmits its theta-role to the subject of the higher verb in the construction.[14] This explains why the "controller" argument has the interpretation of the respective argument in the construction, e.g. the subject is the Experiencer of desire in (19a) and Agent of deciding in (19b).[15]

It is easy to verify that the same property holds of the CP-licensing constructions in (8), where the controller argument has the interpretation of the Experiencer of the mental state corresponding to the nominal.[16] Consequently, I will assume that in the CP-licensing constructions the theta-roles of the Experiencer and the controller also get unified. In order to implement this unification, I would like to propose that the nominal undergoes abstract incorporation into the higher predicate, creating a complex N-V predicate at LF with a shared argument structure (see the concrete illustrations below). This will account for the co-construal property. Specifically, assuming that formation of a complex predicate requires unification of positions in the theta-grids of the verb and the noun, the first argument will have to be co-indexed with a position in the theta-grid of the verb because the second variable is free (and realized by the sentential complement).[17][18]

The proposed analysis essentially follows Davies and Dubinsky's (2003) abstract incorporation account of constructions like *make the claim*, which bear clear resemblance to the CP-licensing constructions.[19] Davies and Dubinsky's analysis is meant to account for the occasional violations of Complex NP Constraint with *make the claim* constructions, as illustrated in (31a); cf.

[14] Lyutikova (2010) conjectures that the theta-transmission property of collocational constructions can be derived from the fact that they are NPs. This follows from the assumption that the theta-role of the external argument of the nominal has to be discharged and the assumption that if it is assigned internal to the projection of the nominal, overtly or non-overtly, the nominal necessarily projects DP. From these assumptions it follows that the external argument role has to be discharged externally to the projection of the nominal.

[15] In (19a) the subject is also the Agent of a speech act.

[16] Again in the expression of a mental state case in (8f) we have a more complex role combining Experiencer and Agent of speech act properties.

[17] The incorporation might follow from the sisterhood requirement on theta-transmission. Cf. Neeleman 1997.

[18] Lyutikova (2010) considers an overt incorporation account of the collocational constructions but rejects its based on a number of argument. These arguments, however, do not exclude an abstract incorporation analysis.

[19] See also Kearns 1998.

(31b).[2021]

(31) a. ? The money which I am making the claim that the company squandered amounts to $2,050,694.11.

b. * The money which I am discussing the claim that the company squandered amounts to $2,050,694.11.

Davies and Dubinsky argue that abstract incorporation is restricted by the conditions as follows: (i) only result nominals can incorporate; (ii) the result nominal is the complement of a causative verb semantically linked to the denoted result; and (iii) the subject of the verb controls the understood agentive subject of the result nominal. These conditions are satisfied by the *make the claim* construction in (31a), as opposed to *discuss the claim* in (31b), which predicts abstract incorporation in the former case and derives the extraction data.[22] Davies and Dubinsky's conditions on incorporation of result nominals clearly match the properties of the CP-licensing constructions. Thus it makes sense to extend their analysis to the SubjExp nominals. Instead of the conditions (ii) and (iii) of Davies and Dubinsky's we will have two other conditions given in (32a)–(32b). Note that the conditions in (32) have a purely descriptive status and their aim is to show the parallelism between the *make the claim* construction and the CP-licensing constructions. Apart from these, I will assume one further general condition on incorporation given in (33).

(32) *Conditions on incorporation of SubjExp nominalizations*

a. The nominal is a complement of the predicate that entails that one of its arguments has or comes to have the propositional attitude expressed by this nominal;

b. The Experiencer argument of the nominal is co-construed with that argument of the predicate.

(33) In Russian, DPs do not incorporate

Given these conditions, the abstract incorporation analysis of the CP-licensing constructions will accurately capture their semantic varieties in (7) and their co-construal property in (9b). In addition it will explain why nominals in these constructions do not project DP, thus capturing the non-overtness property in (9a).

[20] According to their account, the DP-layer ceases to be a blocking category for wh-extraction by virtue of incorporation in V, which they derive from the Government Transparency Corollary.

[21] The same analysis applies for (and in fact is motivated by in the first place) occasional violations of extraction from ordinary DP such as those in (i).

(i) Who did you tell/*hear those jokes about?

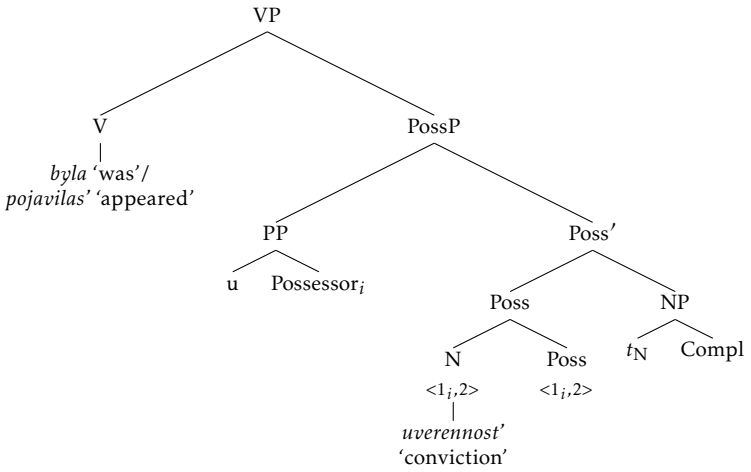
[22] Another similar contrast Davies and Dubinsky cite is given in (i).

(i) Who did Kerry start/*hear the rumor that Kelsey is fond of?

I illustrate this analysis for some of the CP-licensing constructions in (8). In (35) I give the analysis of the '*X* has/comes to have the propositional attitude that *p*' constructions in (34), repeated from (8a) and (8c). (I assume Livitz's (2012) analysis of the possessive structure in Russian, according to which the existential copula *byt'* 'be' and other copula-like verbs take a PossP with the possessor in Spec,PossP.) I represent the control of the Experiencer argument of the nominal by co-indexing the respective position in the theta-grids of the verb and the nominal.

(34) U Maši byla/pojavilas' uverennost'...
at Masha.GEN was/appeared conviction.NOM
'Masha had/got the conviction...'

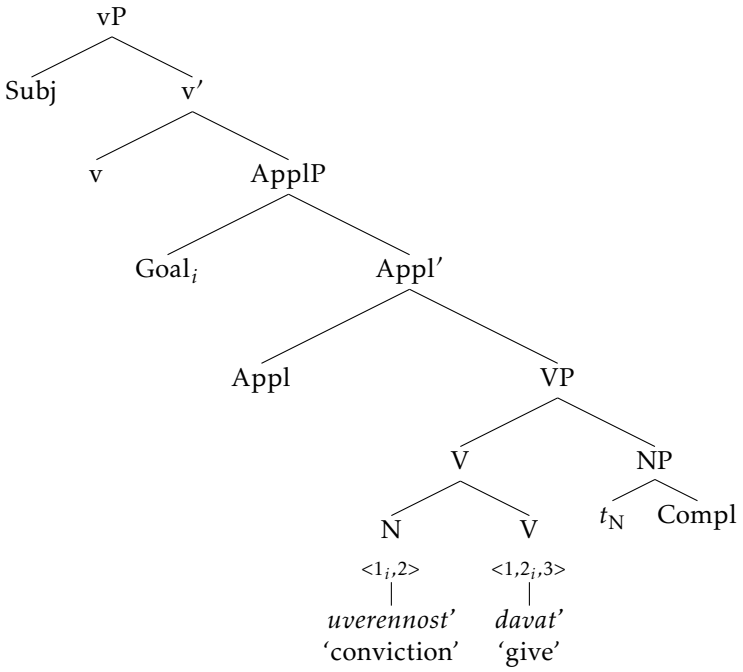
(35)



In (37) I give the structure for the '*Y* causes *X* to have the propositional attitude that *p*" construction in (36), repeated in simplified form from (8d). The structure for the '*X* expresses the propositional attitude that *p*' construction in (38), repeated from (8f), is given in (39).

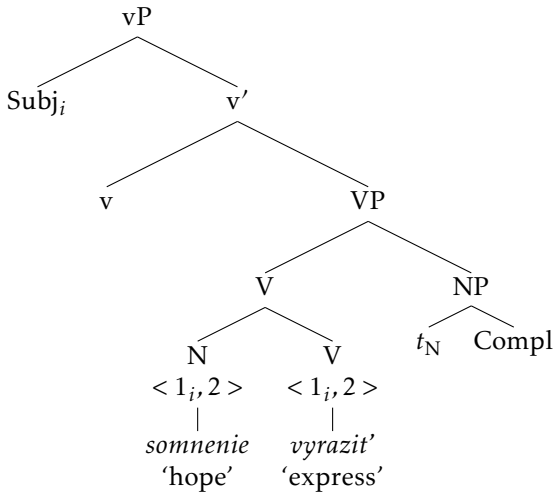
(36) Èto daet Ane nadeždu...
this.NOM gives Anja.DAT hope.ACC
'This instilled in Anja the hope...'

(37)



(38) Politik vyrazil somnenie…
politician.NOM expressed doubt.ACC
'The politician expressed the doubt…'

(39)



Having argued for the abstract incorporation analysis of the CP-licensing constructions we are ready to account for why only these constructions license *čto*-clauses.

4.2.3 The account of the licensing of *čto*-clauses

Let's first see how *čto*-clauses are licensed in the CP-licensing constructions under the P_{CP} proposal. First of all, observe that SubjExp nominals, as nominals in general, do not assign structural Accusative Case, as shown in (40a)–(40c).

(40) a. U Maši byla/pojavilas' uverennost' { v ètom / at Masha.GEN was/appeared conviction.NOM in this.LOC * ètoj. this.ACC
'Masha became convinced of this.'

b. Èto daet Ane nadeždu { na ètu / * ètu}.
this.NOM gives Anja.DAT hope on this.ACC this.ACC
'This instilled in Anja the hope for this.'

c. Politik vyrazil somnenie { v ètom / * ètu}.
politician.NOM expressed doubt.ACC in this.LOC this.ACC
'The politician expressed his doubt in this.LOC THIS.ACC

Under the Case requirement, *čto*-clause complements in the CP-licensing constructions will be introduced by P_{CP}. Now under the licensing conditions on P_{CP}, it will be interpreted as the **utter** or **hold** relation predicated of some argument of the higher predicate. I also argued, that the predication of the P_{CP}-relation is implemented via adjunction of P_{CP} to the higher predicate with the concomitant modification of that predicate's meaning.

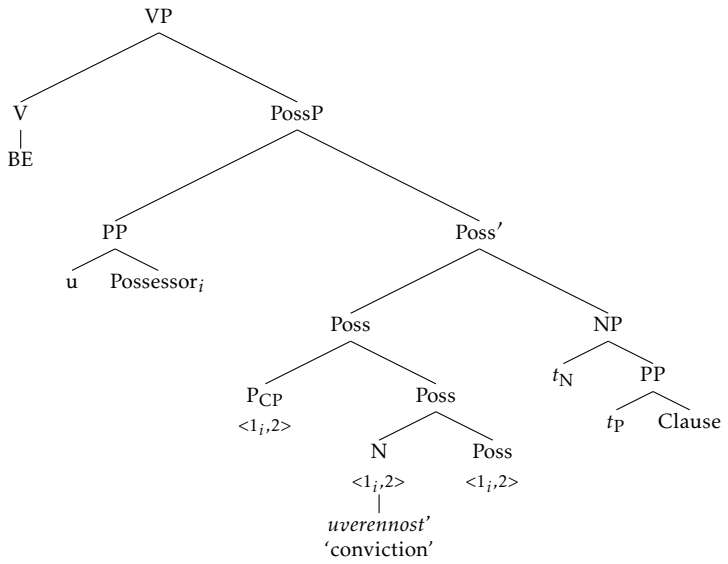
Let's illustrate how this works in the case of the CP-licensing constructions. I start with the '*X* has/comes to have the propositional attitude that *p*' construction in (41). Given the analysis of this construction in (35), the nominal will incorporate into the Poss head, creating a complex N-Poss predicate.[23] In its turn, P_{CP} will adjoin to this complex predicate, yielding the structure in (42). (I represent the co-construal relation and the predication of P_{CP} by co-indexation of the positions in the theta-grid of the relevant predicates.)[24]

(41) U Maši byla/pojavilas' uverennost', čto èto
at Masha.GEN was/appeared conviction.NOM that this.NOM
proizojdet.
will happen
'Masha had/got the conviction that this will happen.'

[23] More accurately, the N-Poss predicate will have to further incorporate into the copula or copula-like verb.

[24] This structure apparently violates cyclicity, as we expect P_{CP} to adjoin first to the noun. However, I will assume that all these movements occur within the same phase and thus their order is not relevant. See Chomsky 2008 on operations proceeding in parallel.

(42)



The P_{CP} will be licensed in the following way. I first assume that the N-Poss predicate will have the interpretation as in (43). The crucial consideration is that the possessor in the construction will be interpreted as an Experiencer and as the holder of the propositional content expressed by the complement. Given this meaning, the P_{CP} will be interpreted as the **hold** relation and predicated of the possessor argument. This is represented in (44).

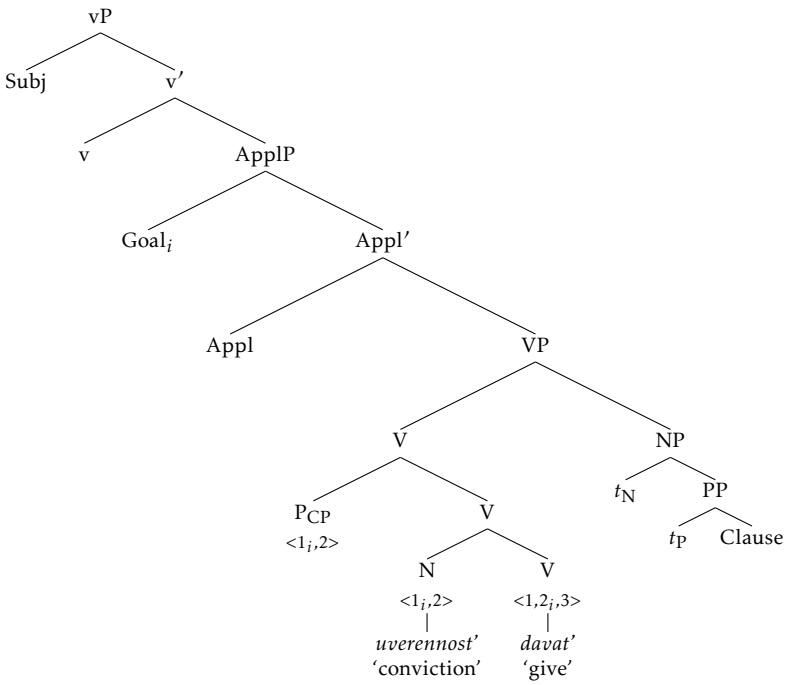
(43) *uverennost'* 'conviction' + Poss:
$\lambda y.\lambda x.\lambda e.\, have\_conviction(e)$ & $Experiencer(e,x)$ & $SubjectMatter(e,y)$

(44) P_{CP} + *uverennost'* 'conviction' + Poss:
$\lambda y.\lambda x.\lambda e.\, have\_conviction(e)$ & $Experiencer(e,x)$ & $SubjectMatter(e,y)$ &
& $R(x,y)$ & R = **hold**
(predicated of the Experiencer)

A similar account can be provided for the '*Y* causes *X* to have the propositional attitude that *p*' construction in (45), the structure for which is given in (46).

(45) Èto daet Ane nadeždu, čto vse budet xorošo.
this.NOM gives Anja.DAT hope.ACC that all.NOM will be good
'This instills in Anja the hope that everything will be fine.'

(46)



I take the meaning of the complex N-V predicate as in (47). The crucial consideration is that the Goal argument of the verb *davat'* 'give' is interpreted as Experiencer and the holder of the proposition content expressed by the complement. Accordingly, P_{CP} will be interpreted as the **hold** relation predicated of that Experiencer argument, as shown in (48).

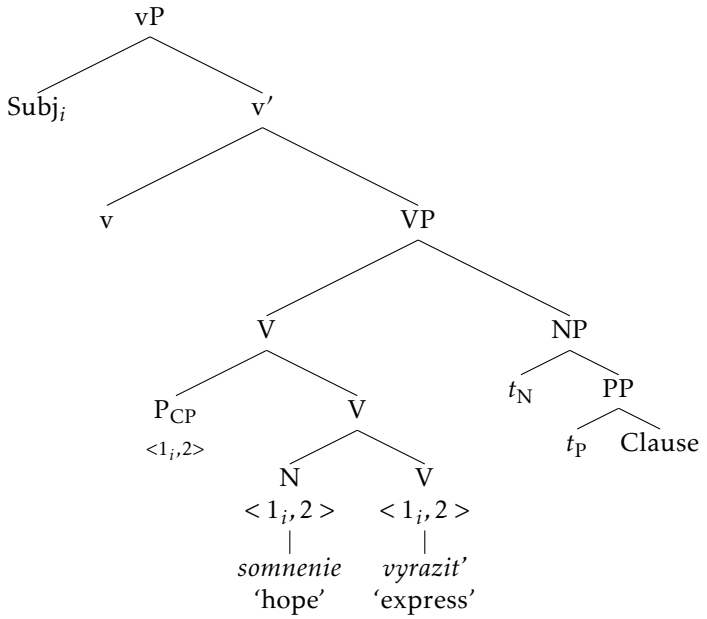
(47) *nadežda* 'hope' + *davat'* 'give':
$\lambda z.\lambda y.\lambda x.\lambda e.\, give\_hope(e) \,\&\, Cause(e,x) \,\&\, Experiencer(e,y) \,\&$
$\&\, SubjectMatter(e,z)$

(48) P_{CP} + *nadežda* 'hope' + *davat'* 'give':
$\lambda z.\lambda y.\lambda x.\lambda e.\, give\_hope(e) \,\&\, Cause(e,x) \,\&\, Experiencer(e,y) \,\&$
$\&\, SubjectMatter(e,z) \,\&\, R(y,z) \,\&\, R = \mathbf{hold}$
(predicated of the Experiencer)

Finally, we can turn to the '*X* expresses the propositional attitude that *p*' construction in (49), the structure for which is illustrated in (50).

(49) Politik vyrazil somnenie', čto problema budet
politician.NOM expressed hope.ACC that problem.NOM will be
rešena.
solved
'The politician expressed the hope that the problem will be solved.'

(50)



I take the structure of the N-V predicate in this case as in (51). Here the subject of the verb will be interpreted as the Agent of a speech act, whose goal is to express the doubt in the propositional content expressed by the complement. Given this meaning, P_{CP} will be interpreted as the **utter** relation and predicated of the Agent.[25]

(51) *somnenie* 'hope' + *vyrazit'* 'express':
$\lambda y.\lambda x.\lambda e.\, express\_doubt(e)$ & $Agent(e,x)$ & $SubjectMatter(e,y)$

(52) P_{CP} + *somnenie* 'hope' + *vyrazit'* 'express':
$\lambda y.\lambda x.\lambda e.\, express\_doubt(e)$ & $Agent(e,x)$ & $SubjectMatter(e,y)$ &
& $R(x,y)$ & $R =$ **utter**
(predicated of the Agent)

To conclude, the abstract incorporation analysis of the CP-licensing construction ensures the satisfaction of the licensing condition on P_{CP} and thus predicts the licensing of *čto*-clause complements in these constructions. In the next section I turn to the non-CP-licensing constructions, where *čto*-clause complements are disallowed.

[25] As with the verb *somnevat'sja* 'doubt' discussed in Chapter 3, which also requires P_{CP}, the meaning of 'express doubt' will probably have to be decomposed as 'express belief' (amounting to 'claim') with the internal negation taking scope over 'belief'. I leave the exact details of the analysis for future work.

4.2.4 The non-licensing of P_{CP} with nominals

Given the abstract incorporation analysis of the CP-licensing constructions and the Case requirement, we can explain why *čto*-clauses are disallowed in the non-CP-licensing constructions such as those in (53a)–(53c), repeated from above.

(53) a. * Politik vyrazil svoju nadeždu, čto
politician.NOM expressed his.REFL hope.ACC that
problema budet rešena.
problem.NOM will solved
Intended: 'The politician expressed his hope that the problem will be solved.'

b. * Ja ne razdeljaju ego uverennost', čto èkonomika
I.NOM not share his conviction.ACC that economy.NOM
bystro vosstanovitsja.
fast will recover
Intended: 'I do not share his conviction that the economy will recover fast.'

c. * Èto usililo $\varnothing_{GEN}$ somnenija, čto rešenie
this.NOM strengthened doubts.ACC that solution.NOM
budet dostignuto.
will be reached
Intended: 'This strengthened the doubts that the solution will be reached.'

Under the Case requirement, the *čto*-clauses in these examples will be introduced by P_{CP} just like in the corresponding CP-licensing constructions. Let's see why P_{CP} will fail to be licensed. First of all, observe that non-CP-licensing constructions cannot involve abstract incorporation. The constructions in (53b)–(53c) lack the co-construal property of the Experiencer argument, which would be forced by abstract incorporation. In the construction in (53a), although the conditions for incorporation in (32) are satisfied, the nominal projects DP and hence violates the condition in (33).

Now that P_{CP} cannot be licensed in (53a)–(53c) in the same manner as in the abstract incorporation cases above, the question is why P_{CP} cannot incorporate into the nominal itself, i.e. why the structure in (54) for the example in (53b) is blocked, and similarly for the other examples.

(54) * Ja ne razdeljaju $[_{DP}$ ego $[P_{CP}$ uverennost'$]$, $[t_P$ $[\varnothing_D$ čto$\ldots]]]$

In order to answer to that question, we need to consider the morphological properties of P_{CP}. I would like to extend Pesetsky's (1995) proposal about the other null preposition *G*, which he postulates for the double object constructions, to P_{CP}. Pesetsky argues that *G* is an affix that must undergo attachment

to a lexical head, which he derives from the general assumption that zero morphemes are affixes (Pesetsky 1995:353).[26] Now assuming that P_{CP} is an affix, we may naturally expect that it will impose restrictions on the lexical category of its host. Concretely, I would like to propose the condition in (55). The condition in (55) will immediately explain why structures like (54) are banned since, by virtue of nominalization, the potential host for P_{CP} is no longer verbal. In contrast, in the CP-licensing cases the condition will be satisfied, assuming that the V-N complex is reanalyzed at LF as V. The condition will also capture the fact that P_{CP} is compatible with adjectival predicates as we saw in Chapter 2, assuming adjectives are standardly analyzed as [+N +V].[27]

(55) *The adjunction condition of P_{CP}*
P_{CP} adjoins to a [+V] head.

One interesting question that arises under the proposal in (55) is how to handle adjunct PPs constructions such as (56a)–(56b), which allow *čto*-clause complements. According to the proposed account, these constructions should involve P_{CP}, which, based on the semantics of these constructions, should be interpreted as the **hold** relation predicated of the matrix subject, just like in the case of *hope*. Yet there does not seem to be any [+V] head that P_{CP} could attach to (the matrix V being obviously structurally too far).

(56) a. On ostalsja doma v nadežde, čto oni pridut.
he.NOM stayed home in hope.LOC that they.NOM come
'He stayed home in hope that they will come.'

[26] Pesetsky (1991) and Bošković and Lasnik (2003) also use this assumption to derive the affixal property of the null complementizer in English in their account of the restrictions in its distribution, see also section 2.4.3 from Chapter 2.

[27] The data on adjectival predicates is in fact more complex. The data in (i) show that there is a contrast in acceptability between short form and long form adjectives with respect to taking a *čto*-clause complements. Although the contrasts are not clear-cut, the data suggest that only short form adjectives fully license P_{CP}. This contrast may be taken to argue for a more strict condition on P_{CP} such as (i), under Geist's (2010) proposal to the effect that short form adjectives are verbal in terms of their category (embedded in v layer), as opposed to long form adjectives.

(i) a. On uveren (v tom), čto komanda pobedit.
he.NOM sure(SHORT) in it.LOC that team.NOM will win
'He is sure (of the fact) that the team will win.'

b. On vernulsja uverennyj v tom, čto komanda pobedit.
he.NOM returned sure(LONG) in it.LOC that team.NOM will win
Lit.: 'He returned sure of the fact that the team will win.'

c. ?? On vernulsja uverennyj, čto komanda pobedit.
he.NOM returned sure(LONG) that team.NOM will win
Lit.: 'He returned sure that the team will win.'

(ii) P_{CP} adjoins to a verbal head.

b. On prišel v polnoj uverennosti, čto ona tam.
he.NOM came in full conviction.LOC that she.NOM there
lit. 'He came fully convinced that she is there.'

In order to see how these facts follow this analysis, observe that these constructions behave just like the nominals in the CP-licensing constructions, as the possessor cannot be overtly realized and is necessarily co-construed with the subject of the matrix clause, as shown in (57a). They are also non-referential, as shown in (57b).

(57) a. * On$_i$ ostalsja doma v { ∅$_i$ / svoej / ego} nadežde...
he.NOM stayed home in his.REFL his hope.LOC
Lit.: 'He stayed home in his hope...'

b. * On ostalsja doma v nadežde$_i$ {, čto oni pridut
he.NOM stayed home in hope.LOC that they.NOM will come
/ na èto}, i ona$_i$ byla očen' silnaja.
on this.ACC and she.NOM was very strong
'He stayed home in hope that they will come and it was very strong.'

Given this similarity, we might expect that these adjunct PP constructions also involve abstract incorporation, although it is not immediately clear what the nominal could incorporate to. Suppose that these adjunct PPs are complements of the silent predicational BE in the participial form whose PRO subject is controlled by the matrix subject in the standard way of participial clauses, as in (58). Then the nominal (along with the selected P) can incorporate into BE, creating a complex predicate *be_in_hope* at LF, which is semantically similar to *hope*.

(58) On$_i$ ostalsja doma [$_{\text{PtcpP}}$ [$_{\text{VP}}$ ∅$_i$ BE v nadežde ...]]

This will account for all the observed properties and the meaning of these constructions. Given this analysis we can also immediately see how P_{CP} is licensed in constructions with *čto*-clauses in (56a)–(56b). P_{CP} could now incorporate into this complex head and get predicated of its Experiencer argument in the usual manner (and eventually co-indexed with the matrix subject through participial control), thus satisfying the licensing condition on P_{CP}. The morphological condition in (55) will also be satisfied because null BE is a verb.

To summarize, I showed that *čto*-clause complements of SubjExp nominalizations are licensed only in those contexts where the nominal undergoes abstract incorporation to the higher predicate. I argued that this follows from the Case requirement and the P_{CP} proposal without any additional stipulation and thus strongly supports the proposed account. In the next section we will see that the same account can also be extended to the licensing of *čto*-clauses with PROOF-class nouns.

4.3 PROOF-class nouns

4.3.1 The restrictions on *čto*-clause complements

In this section I will discuss the distributional restrictions on *čto*-clause complements with PROOF-class nouns *dokazatel'stvo* 'proof', *podtverždenie* 'confirmation' and *svidetel'stvo* 'evidence'. I will show that these restrictions also follow from the proposed account.

First of all, note that PROOF-class nouns do not take Accusative complements and instead require complements with genitive Case, as shown in (59a)–(59b).

(59) a. dokazatel'stvo { teoremy / * teoremu}
proof.NOM theorem.GEN theorem.ACC
'proof of a/the theorem'

b. podtverždenie ego { pravoty / * pravoty}
proof.NOM his rightness.GEN rightness.ACC
'confirmation of his rightness'

Assuming that Genitive, as other oblique cases, is assigned by P_{GEN}, we expect that in the genitive complement position a *čto*-clause must be licensed by P_{CP}. This is because, under the assumption about Case realization from Chapter 2, P_{GEN} will assign realized Case, which will yield a *to*,*čto*-clause, whereas in the absence of P_{GEN} the position will be "Caseless" and thus will require P_{CP} for the licensing of the *čto*-clause.

Further, given that P_{CP} cannot be licensed by a nominal head, as I showed above (see (55)), we predict, under minimal assumptions, that the nominal that selects P_{CP} will have to incorporate into a higher predicate head in order for P_{CP} to get licensed (otherwise some other mechanism would need to be stipulated to account for the licensing of P_{CP}). I will now show that the distribution of *čto*-clause with nouns like *dokazatel'stvo* 'proof' exactly matches this prediction.

Nouns like *dokazatel'stvo* 'proof' (also *podtverždenie* 'confirmation' and *svidetel'stvo* 'evidence') allow *čto*-clauses in a very restricted set of constructions (the CP-licensing constructions), which can be semantically characterized as in (60).

(60) The CP-licensing constructions for PROOF-class nouns
- *X* has proof (confirmation, evidence) of *p*;
- *X* gets proof of *p*[28];

[28] Other constructions are given in (ia)–(ib).

(i) a. Im prišlo (ot Ivana) podtverždenie, čto on vozglavit
them.dat came from Ivan.gen confirmation.NOM that he.NOM will head
kafedru.
department.ACC
'They got the confirmation (from Ivan) that he would head the department.'

- *X* needs proof of *p*;
- *X* finds proof of *p*;
- *X* gives proof of *p*

I illustrate these constructions in (60a)–(60d).[29]

(60) a. U nix est' { dokazatel'stva / podtverždenie / svidetel'stva}, čto kartina poddel'naja.
at them.GEN is/appeared proofs.NOM confirmation.NOM pieces of evidence.NOM that painting.NOM fake
'They have proof/confirmation/evidence that the painting is fake.'

b. U nix pojavilis' { dokazatel'stva / svidetel'stva}, čto kartina poddel'naja.
at them.GEN appeared proofs.NOM pieces of evidence.NOM that painting.NOM fake
'They got the proof that the painting is fake.'

c. Im { nužny dokazatel'stva / nužno potverždenie}, čto kartina poddel'naja.
them.DAT necessary proofs.NOM necessary confirmation.NOM that painting.NOM fake
'They need the proof/confirmation that the painting is fake.'

d. Oni našli dokazatel'stva, čto kartina poddel'naja.
they.NOM found proofs.ACC that painting.NOM fake
'They are found the proof that the painting is fake.'

e. Èkspert predstavil/pred"javil/privel/predostavil (im) dokazatel'stva, čto kartina poddel'naja.
expert.NOM presented/produced/brought/provided them.DAT proofs.ACC that painting.NOM fake
'Expert presented (them) the proof that the painting is fake.'

4.3.2 The abstract incorporation account of the licensing of *čto*-clauses

I would like to propose that all of these constructions involve abstract incorporation of the nominal resulting in the formation of a complex predicate that has as its core component the possession by *X* of the factual knowledge of

b. Oni polučili (ot Ivana) podtverždenie, čto on vozglavit kafedru.
they.NOM got from Ivan.gen confirmation.NOM that he.NOM will head department.ACC
'They got the confirmation (from Ivan) that he would head the department.'

[29] The nominals can be used both in singular and plural in these constructions.

proposition *p*, as in (60a)–(60d), or *X*'s expression of this knowledge, as in (60e). Before presenting the syntactic arguments for this analysis, I will demonstrate how it works for the constructions above.

Starting from the construction in (60a), the nominal (I use *dokazatel'stva* 'proofs' for expository purposes) will incorporate into the Poss head (the N-Poss complex further incorporating into the copula) creating a complex predicate *have_proof_of* with the argument structure as in (61). The meaning of this predicate will roughly be equivalent to 'know factually that *p*'. Given this meaning, it will have an Experiencer argument construed as the holder of the proposition expressed by the complement. Hence P_{CP} can be interpreted as the **hold** relation and predicated of this argument, as shown in (62).

(61) *dokazatel'stva* 'proofs' + Poss + BE:
$\lambda y.\lambda x.\lambda e.\, have\_proof\_of(e) \,\&\, Experiencer(e,x) \,\&\, Theme(e,y)$

(62) P_{CP} + *dokazatel'stva* 'proofs' + Poss + BE:
$\lambda y.\lambda x.\lambda e.\, have\_proof\_of(e) \,\&\, Experiencer(e,x) \,\&\, Theme(e,y) \,\&$
$\& R(x,z) \,\&\, R = \mathbf{hold}$
(predicated of the Experiencer)

A similar analysis can be given to the constructions in (60b) except that the Poss-N complex will incorporate into the verb *pojavitsja* 'appear' giving rise to the predicate *get_proof_of* with the meaning 'get to know factually that *p*'. The licensing of P_{CP} will proceed in the same manner as in (62).

As for the constructions in (60c)–(60d), although the possessive relation is not directly realized, they are also amenable to the same analysis. In (60c) the predicate *nužno* 'necessary' can be analyzed as taking a concealed clausal complement expressing possession (see, e.g., Harves and Kayne 2012). Assuming that this predicate is Poss, we will have the same analysis as in the case of the possessive construction in (62) except that the complex predicate *have_proof_of* will be in the scope of 'need'. In (60d), although the verb is 'find', the construction is basically equivalent in meaning to the construction in (60b) and thus can be analyzed as involving *get_proof_of* relation.

Finally, the construction in (60e) will have a slightly different analysis. Here the relevant complex predicate *show_proof_of* will express the communicative act whose goal is to express the factual knowledge of the proposition expressed by the complement and which is similar in meaning to the '(agentive) demonstrate'. This is shown in (63). Although the Agent argument does not necessarily have to be the speaker, he or she is responsible for bringing about the propositional content realized by the complement. Hence P_{CP} can be interpreted as the *utter* relation and predicated of the Agent argument, as illustrated in (64).

(63) *dokazatel'stva* 'proofs' + *predstavit'* 'present':
$\lambda z.\lambda y.\lambda x.\lambda e.\, show\_proof\_of(e) \,\&\, Agent(e,x) \,\&\, Goal(e,y) \,\&\, Theme(e,z)$

(64) P_{CP} + *dokazatel'stva* 'proofs' + *predstavit'* 'present':
$\lambda z.\lambda y.\lambda x.\lambda e.\ show\_proof\_of(e)$ & $Agent(e,x)$ & $Goal(e,y)$ & $Theme(e,z)$ &
& $R(x,z)$ & $R =$ **utter**
(predicated of the Agent)

Given that the CP-licensing constructions in (60) can be analyzed as involving the formation of complex predicates that express factual knowledge of *p* and involve an argument (the holder or the utterer) that can satisfy the licensing condition for P_{CP}, we correctly predict that *čto*-clauses will be licensed.

4.3.3 Evidence for the abstract incorporation account

Now I will show that whenever the abstract incorporation analysis of the construction is blocked, a *čto*-clause is also disallowed. This is exactly what we expect if P_{CP} requires abstract incorporation of the nominal to a higher verb, in accordance with the adjunction condition in (55).

First of all, observe that overt possessors in constructions in (60) are degraded if the *čto*-clause is realized, just like in the corresponding constructions with SubjExp nominalizations. This is shown in (65a)–(65d).[30]

(65) a. *? U nix est'/pojavilis' ego { dokazatel'stva /
at them.GEN is/appeared his proofs.NOM
svidetel'stva}, čto kartina poddel'naja.
pieces of evidence.NOM that painting.NOM fake
Intended: 'They have/got his proofs/evidence that the painting is fake.'

b. *? Im { nužny ego dokazatel'stva / nužno ego
them.DAT necessary his proofs.NOM necessary his
potverždenie}, čto kartina poddel'naja.
confirmation.NOM that painting.NOM fake
Intended: 'They need the proof/confirmation that the painting is fake.'

c. *? Oni našli ego dokazatel'stva, čto kartina
they.NOM found his proof.ACC that painting.NOM
poddel'naja.
fake
Intended: 'They found his proof that the painting is fake.'

d. *? Èkspert predstavil/pred"javil/privel/predostavil
expert.NOM presented/produced/brought/provided
svoi/moi dokazatel'stva, čto kartina poddel'naja.
his.REFL/my proofs.ACC that painting.NOM fake
Intended: 'The expert presented his/my proof that the painting

[30] Although these these sentences are clearly degraded, they are not strictly ungrammatical. I return to this fact in section 4.5.

is fake.'

Note that without *čto*-clauses these constructions are fine, as shown in (66b)–(66e).[31]

(66) a. U nix est' ego { dokazatel'stva / svidetel'stva /
at them.GEN is his { proofs.NOM pieces of evidence.NOM
podtverždenie} (? togo, čto kartina poddel'naja).
confirmation.NOM it.GEN that painting.NOM fake
'They have his proofs/evidence/confirmation that the painting is fake.'

b. U nix pojavilis' ego { dokazatel'stva /
at them.GEN appeared his proofs.NOM
svidetel'stva} (? togo, čto kartina
pieces of evidence.NOM it.GEN that painting.NOM
poddel'naja).
fake
'They got his proofs/pieces of evidence that the painting is fake.'

c. Im { nužny ego dokazatel'stva / nužno ego
them.DAT necessary his proofs.NOM necessary his
potverždenie} (? togo, čto kartina poddel'naja).
confirmation.NOM it.GEN that painting.NOM fake
'They need his proofs/confirmation that the painting is fake.'

d. Oni našli ego dokazatel'stva (? togo, čto kartina
they.NOM found his proofs.ACC it.GEN that painting.NOM
poddel'naja).
fake
'They found his proofs that the painting is fake.'

e. Èkspert predstavil/pred"javil/privel/predostavil
expert.NOM presented/produced/brought/provided
svoi/moi dokazatel'stva (? togo, čto kartina
his.REFL/my proofs.ACC it.GEN that painting.NOM
poddel'naja).
fake
'The expert presented his/my proofs that the painting is fake.'

Secondly, whenever quantificational material is realized in the projection of the nominal, a *čto*-clause complement is degraded, as shown in (67a)–(67e).

[31] Notice that these constructions do not readily allow for *to*,*čto*-clauses marked with genitive either. Although I do not fully understand this fact, it probably has to do with the general dispreference for the co-occurrence of prenominal possessors and genitive phrases (David Pesetsky, p.c.). Ora Matushansky (p.c.) observes that *to*,*čto*-clauses in (66b)–(66e) are fine with the contrastive reading of the possessor.

(67) a. *? U nix est' mnogo { dokazatel'stv /
at them.GEN is many proofs.GEN
svidetel'stv / podtverždenij}, čto
pieces of evidence.GEN confirmations.GEN that
kartina poddel'naja.
painting.NOM fake
Intended: 'They have many proofs/pieces of evidence/confirmations that the painting is fake.'

b. * U nix pojavilos' pjat' { dokazatel'stv /
at them.GEN appeared five proofs.GEN
svidetel'stv}, čto kartina poddel'naja.
pieces of evidence.GEN that painting.NOM fake
Intended: 'They got many proofs/pieces of evidence that the painting is fake.'

c. * Im nužno neskol'ko dokazatel'stv, čto
them.DAT necessary several proofs.GEN that
kartina poddel'naja.
painting.NOM fake
Intended: 'They need his proofs/confirmation that the painting is fake.'

d. * Oni našli bol'še dokazatel'stv, čto kartina
they.NOM found more proofs.GEN that painting.NOM
poddel'naja, čem my.
fake than us.NOM
Intended: 'They found more proofs that the painting is fake than we did.'

e. * Èkspert privel vse dokazatel'stva, čto kartina
expert.NOM brought all proofs.ACC that painting.NOM
poddel'naja.
fake
Intended: 'The expert presented all the proofs that the painting is fake.'

In contrast, *to*,*čto*-clauses marked with genitive, are possible in the same contexts, as shown in (68a)–(68e).

(68) a. U nix est' mnogo { dokazatel'stv / svidetel'stv
at them.GEN is many proofs.GEN pieces of evidence.GEN
/ podtverždenij} togo, čto kartina poddel'naja.
confirmations.GEN it.GEN that painting.NOM fake
'They have many proofs/pieces of evidence/confirmations that the painting is fake.'

b. U nix pojavilos' pjat' { dokazatel'stv /
at them.GEN appeared five proofs.GEN
svidetel'stv} togo, čto kartina poddel'naja.
pieces of evidence.GEN it.GEN that painting.NOM fake
'They got five proofs/pieces of evidence that the painting is fake.'

c. Im nužno neskol'ko dokazatel'stv togo, čto
them.DAT necessary several proofs.GEN it.GEN that
kartina poddel'naja.
painting.NOM fake
'They need several proofs that the painting is fake.'

d. Oni našli bol'še dokazatel'stv togo, čto kartina
they.NOM found more proofs.GEN it.GEN that painting.NOM
poddel'naja, čem my.
fake than we.NOM
'They found more proofs that the painting is fake than we did.'

e. Èkspert privel vse dokazatel'stva togo, čto kartina
expert.NOM brought all proofs.ACC it.GEN that painting.NOM
poddel'naja.
fake
'The expert presented all the proofs that the painting is fake.'

The non-realization of *čto*-clauses with possessives and quantificational phrases follows straightforwardly from the abstract incorporation analysis if they force the projection of functional structure above NP that blocks incorporation of the nominal into V, which accounts for the non-licensing of P_{CP} and hence *čto*-clause complements.[32]

Thirdly, nominals in the CP licensing constructions cannot antecede a referential pronoun, as shown in (69a)–(69d). Again in (69a) I use a negative context and in (69b) and (69d) an intensional context to avoid the entailment of the existence of the referent of the nominal.

[32] Interestingly, although the presence of modifying adjectives as such is not predicted to block incorporation of the nominal as long as they do not force the projection of DP (cf., e.g., (56b) from section 4.2.4 above), in certain cases such as (ia) modification by an adjective leads to the unacceptability of the *čto*-clause complement, as pointed out by Ora Matushansky (p.c.); cf. (ib). One possibility is that the adjective in (ia) is incompatible with the semantics of (the possession of) factual knowledge, which is a semantic condition on the incorporation of PROOF-class nominals. I have to leave the investigation of the effect of modification in these constructions for further research.

(i) a. ?* Im nužny novye dokazatel'stva, čto kartina poddel'naja.
them.DAT necessary new proofs.NOM that painting.NOM fake

b. Im nužny novye dokazatel'stva togo, čto kartina poddel'naja.
them.DAT necessary new proofs.NOM it.GEN that painting.NOM fake
'They need new proofs that the painting is fake.'

(69) a. ?? U nego net { dokazatel'stv$_i$ / svidetel'stv$_i$},
at them.GEN is not proofs.GEN pieces of evidence.GEN
čto kartina poddel'naja, xotja oni$_i$ byli by
that painting.NOM fake although they.NOM were SUBJ
očen' interesnye.
very interesting
Intended: 'They don't have the proof$_i$/evidence$_i$ that the painting is fake although it$_i$ would be very interesting.'

b. *? Èkspert xočet predstavit' dokazatel'stva$_i$, čto
expert.NOM wants to present proofs.ACC that
kartina poddelnaja, potomu čto oni$_i$ očen'
painting.NOM fake because they.NOM very
interesnye.
convincing
Intended: 'The expert wants to present the proof$_i$ that the painting is fake because it$_i$ is very convincing.'

c. *? Im nužny dokazatel'stva$_i$, čto kartina
them.DAT necessary proofs.NOM that painting.NOM
poddel'naja, potomu čto oni$_i$ byli by očen' interesnye.
fake because they.NOM were SUBJ very interesting
Intended: 'They need the proof$_i$ that the paiting is fake because it$_i$ would be very interesting.'

d. *? On xočet najti dokazatel'stva$_i$, čto kartina
he.NOM wants to find proofs.ACC that painting.NOM
poddel'naja, potomu čto oni$_i$ byli by očen' interesnye.
fake because they.NOM were SUBJ very interesting
Intended: 'He wants to find the proof$_i$ that the painting is fake because it$_i$ would be very interesting.'

In contrast, when the same nominals are used with *to,čto*-clauses in the genitive case, they can antecede referential pronouns, as shown in (70a)–(70d).

(70) a. U nego net { dokazatel'stv$_i$ / svidetel'stv$_i$}
at them.GEN is not proofs.GEN pieces of evidence.GEN
togo, čto kartina poddel'naja, xotja oni$_i$ byli
it.GEN that painting.NOM fake although they.NOM were
by očen' interesnye.
SUBJ very interesting
'They don't have the proof$_i$/evidence$_i$ that the painting is fake although it$_i$ would be very interesting.'

b. Èkspert xočet predstavit' dokazatel'stva$_i$ togo, čto
expert.NOM not presented proofs.ACC it.GEN that

kartina poddelnaja, potomu čto oni$_i$ očen' painting.NOM fake because they.NOM very interesnye.
convincing

'The expert wants to present the proof$_i$ that the painting is fake because it$_i$ is very convincing.'

c. Im nužny dokazatel'stva$_i$ togo, čto kartina them.DAT necessary proofs.NOM it.GEN that painting.NOM poddel'naja, potomu čto oni$_i$ byli by očen' interesnye. fake because they.NOM were SUBJ very interesting

'They need the proof$_i$ that the paiting is fake because it$_i$ would be very interesting.'

d. On xočet najti dokazatel'stva$_i$ togo, čto kartina he.NOM wants find proofs.ACC it.GEN that painting.NOM poddel'naja, potomu čto oni$_i$ byli by očen' interesnye. fake because they.NOM were SUBJ very interesting

'He wants to find the proof$_i$ that the painting is fake because it$_i$ would be very interesting.'

The data in (69)–(70) again straightforwardly follow from the abstract incorporation analysis. Because the co-reference with a referential pronoun forces a referential reading and thus a DP layer, it blocks incorporation of the nominal under the assumption that DP cannot incorporate. As a result, P_{CP} fails to be licensed and *čto*-clauses become degraded.[33]

[33] Additional evidence for the abstract incorporation account comes from the fact that when the constructions like *predstavit' dokazatel'stva* 'present proof' are passivized with the object DP promoted to the subject position, a *čto*-clause becomes degraded, as shown in (ia); cf. acceptable sentence in (ib) with a *to*,*čto*-clauses. The unacceptability of (ia) follows under the assumption that overt DP-movement destroys the configuration required for the incorporation of the nominal at LF, i.e. the position of the complement of V. Note also that passivization without overt movement of the subject, as in (ic), is correctly predicted to be fine. I am grateful to Ora Matushansky (p.c.) for pointing out these examples to me.

(i) a. *? Dokazatel'stva, čto kartina poddel'naja, budut predstavleny na bližajšem proofs.ACC that painting.NOM fake will be presented on next zasedanii.
session.LOC

b. Dokazatel'stva togo, čto kartina poddel'naja, budut predstavleny na proofs.ACC it.GEN that painting.NOM fake will be presented on bližajšem zasedanii.
next session.LOC

c. Na bližajšem zasedanii budut predstavleny dokazatel'stva, čto kartina on next session.LOC will be presented proofs.ACC that painting.NOM poddel'naja.
fake

'The proof that the painting is fake will be presented in the next session.'

So far I have shown that the CP-licensing constructions in (60), which permit abstract incorporation, fail to take *čto*-clauses once we force projection of DP by overt DP material or referential construal. Note that even when we don't specifically force projection of DP, *čto*-clauses are still blocked if the construction is not the one that satisfies the semantic conditions on incorporation, namely, if it does not express possession or expression of factual knowledge. Although nouns like *dokazatel'stvo* 'proof' with sentential complements (whether realized as *čto*- or *to*,*čto*-clauses) gravitate towards the CP-licensing constructions in (60), we can find examples where *dokazatel'stvo* 'proof' appears as a complement of verbs not expressing possession, as, for example, in (71)–(72). As expected, only *to*,*čto*-clauses are allowed, as in (71b)–(72b), bare *čto*-clauses being disallowed, as shown in (71a)–(72a).

(71) a. *? On videl v ètom dokazatel'stvo, čto ona ne čitala
he.NOM saw in this proof.ACC that she.NOM not read
ètu knigu.
this book.ACC
Intended: 'He saw in this the proof that she didn't read this book.'

b. On videl v ètom dokazatel'stvo togo, čto ona ne
he.NOM saw in this proof.ACC it.GEN that she.NOM not
čitala ètu knigu.
read this book.ACC
'He saw in this the proof that she didn't read this book.'

(72) a. *? On posvjatil svoju knigu dokazatel'stvu, čto
he.NOM dedicated his book.ACC proof.DAT that
vidimyj mir ne suščestvuet.
visible world.NOM not exists
Intended: 'He dedicated his book to the proof that the visible world does not exist.'

b. On posvjatil svoju knigu dokazatel'stvu togo, čto
he.NOM dedicated his book.ACC proof.DAT it.GEN that
vidimyj mir ne suščestvuet.
visible world.NOM not exists
'He dedicated his book to the proof that the visible world does not exist.'

To summarize, I showed that *čto*-clause complements of PROOF-class nouns are licensed only in those cases where the nominal undergoes abstract incorporation to the higher predicate, which follows from the Case requirement of *čto*-clauses and the P_{CP} proposal.

In the remainder of this chapter I would like to discuss a few other relational nouns that allow *čto*-clauses in an even more restricted set of contexts.

I will argue that these too can be analyzed in terms of the proposed abstract incorporation account.

4.4 Other relational nouns

4.4.1 The restrictions on *čto*-clause complements

In this section I will show that the proposed account can also be extended to capture the distribution of *čto*-clauses with other relational nouns, including *verojatnost'* 'likelihood' and *priznak* 'sign', illustrated in (73a)–(73b). As I show in (74a)–(74b), these nouns disallow the post-copular complement and thus should be analyzed as argumental.[34]

(73) a. priznaki togo, čto èkonomika vosstanavlivaetsja
signs.NOM it.GEN that economy.NOM recovers
'the signs of the fact that the economy is recovering'

b. verojatnost' togo, čto èkonomika vosstanavlivaetsja
likelihood.NOM it.GEN that economy.NOM recovers
'the likelihood of the fact that the economy is recovering'

(74) a. * Priznaki sostojat v tom, čto èkonomika
signs.NOM consist in it.LOC that economy.NOM
vosstanavlivaetsja.
recovers
Lit.: '*The signs are that the economy is recovering.' (in the sense of (73a))

b. *? Verojatnost' zakljačaetjsa v tom, čto èkonomika
likelihood.NOM consists in it.LOC that economy.NOM
vosstanavlivaetsja.
recovers
Lit.: 'The likelihood is that the economy is recovering.

These nouns allow *čto*-clauses in an even more restricted set of constructions.[35] Thus *verojatnost'* 'likelihood' mostly appears in an existential construction, as in (75a), and in constructions with predicative adjectives, as in (75b)–(75c). *Priznak* 'sign' appears in an existential construction, as in (76a) and in predicate position, as in (76b).

(75) a. Est' verojatnost', čto èto skoro proizojdet.
is likelihood.NOM that this.NOM soon will happen
'There is likelihood that this will happen soon.'

[34] Note that the relevant construction with *verojatnost'* 'likelihood' is not entirely ungrammatical. See section 4.5.

[35] Other nouns showing similar restrictions are *šans* 'chance', *znak* 'sign' and *pričina* 'reason'.

b. Velika/vysoka verojatnost', čto Ivan ne priedet.
big/high likelihood.NOM that Ivan.NOM not will come
'The likelihood that Ivan will not come is high.'

c. Kakova verojatnost', čto Ivan ne priedet?
what likelihood.NOM that Ivan.NOM not will come
'What is the likelihood that Ivan will not come?'

(76) a. Est' priznaki, čto èto skoro proizojdet.
is signs.NOM that this.NOM soon will happen
'There is evidence that this will happen soon.'

b. Èto vernyj priznak, čto kto-to doma.
this.NOM true sign.NOM that someone.NOM home
'This is a true sign that someone is home.'

Given the Case requirement and the P_{CP} proposal, we expect that in these constructions *čto*-clauses will be introduced by P_{CP}, giving rise to the structures in (77a)–(77c) and (78a)–(78b).

(77) a. Est' verojatnost', [P_{CP} [$\varnothing_D$ čto èto skoro proizojdet]].
b. Velika/vysoka verojatnost', [P_{CP} [$\varnothing_D$ čto Ivan ne priedet]].
c. Kakova verojatnost', [P_{CP} [$\varnothing_D$ čto Ivan ne priedet]]?

(78) a. Est' priznaki, [P_{CP} [$\varnothing_D$ čto èto skoro proizojdet]].
b. Èto vernyj priznak, [P_{CP} [$\varnothing_D$ čto kto-to doma]].

4.4.2 The abstract incorporation account of the licensing of *čto*-clauses

Given the adjunction condition in (55), we also expect that the nominal will incorporate into the higher predicate in these constructions in order for P_{CP} to be licensed. I would like to propose that these constructions also involve abstract incorporation of the nominal resulting in formation of complex predicates expressing epistemic judgment (of the speaker). In particular, in existential constructions in (75a) and (76a) the nominal will incorporate into the verb *byt'* 'be' giving rise to the complex predicate *exists_likelihood_of* roughly having the meaning *likely that p* and the complex predicate *exist_signs_of* with the meaning *seems that p*.

As for (75b)–(75c), I assume they are lexicalized constructions involving agreeing adjectival predicates akin to *nužen* 'necessary', as in (79a). I assume that these predicates are verbal. This is suggested by their initial position like that of impersonal verbs, and the possibility of placing the copula in the past tense after (as well as before) the predicate, as in (80), a characteristic of a number of modal predicates (cf. (79b)), which have been argued to be

verbal (see Schoorlemmer 1994).[36] The incorporation of the nominal will yield complex predicates *high_likelihood_of* (*p*) and *what_likelihood_of* (*p*) with the approximate meaning *very likely that p* and *how likely that p*.

(79) a. Nužny den'gi.
necessarynom.pl money.NOM
'Money is necessary.'

b. (Byli) nužny (byli) den'gi.
were necessary.NOM.PL were money.NOM
'Money was necessary.'

(80) (Byla) velika/vysoka (byla) verojatnost', čto Ivan ne priedet.
was big/high was likelihood.NOM that Ivan.NOM not will come
'The likelihood that Ivan would not come was high.'

Finally, the construction in (76b) can be analyzed as involving incorporation of the nominal into the silent copula resulting in the complex predicate *be_sign_of* (*p*) with the meaning *indicate that p*.

To summarize, the resultant complex predicates obtained after incorporation can be given in (81a)–(81e).

(81) a. *exists_likelihood_of* (*p*) ≈ *likely that p*
b. *high_likelihood_of* (*p*) ≈ *very likely that p*
c. *what_likelihood_of* (*p*) ≈ *how likely p*
d. *exist_signs_of* (*p*) ≈ *seems that p*
e. *be_sign_of* (*p*) ≈ *indicate that p*

[36] A further assumption is that the subject noun phrase is the internal argument of the adjectival predicate, which is supported by its postverbal position in these constructions, cf. (ia), showing the unacceptability of subject in the preverbal position (note the placement of the copula after the adjective, forcing the verbal construal of the adjectival predicate). Note that these adjectives can also be used in the usual way with the subject merged as the external argument, as in (ib). In accordance with the abstract incorporation analysis, *čto*-clauses are correctly predicted to be degraded, as shown in (ic). I am grateful to Ora Matushansky (p.c.) for drawing my attention to this issue.

(i) a. * Verojatnost' (togo), čto Ivan ne priedet, velika/vysoka byla.
likelihood.NOM it.GEN that Ivan.NOM not will come big/high was

b. Verojatnost' togo, čto Ivan ne priedet, byla velika/vysoka.
likelihood.NOM it.GEN that Ivan.NOM not will come was big/high
'The likelihood that Ivan would not come was high.'

c. ?* Verojatnost', čto Ivan ne priedet, byla velika/vysoka.
likelihood.NOM that Ivan.NOM not will come was big/high

Given the abstract incorporation analysis, the complex predicates in these constructions can serve as a host for P_{CP}, which would account for the licensing of *čto*-clauses in these constructions. Before I show how exactly P_{CP} is going to be licensed, I will present some arguments for the incorporation analysis.

Firstly, observe that in these constructions the nominals are non-referential. The position of the nominal in the existential construction in (75a) and in the predicate position in (76a) are standard non-referential positions. As for the constructions in (75b)–(75c), the nominals in them are also non-referential, as shown by inability of the nominals to antecede referential pronouns, as illustrated in (82a)–(82b).

(82) a. * Velika/vysoka verojatnost'$_i$, čto Ivan ne priedet,
big/high likelihood.NOM that Ivan.NOM not will come
i ona$_i$ rastet.
and she.NOM grow
Intended: 'The likelihood$_i$ that Ivan will not come is high and it$_i$ is increasing.'

b. *? Kakova verojatnost'$_i$, čto Ivan ne priedet? Ona$_i$
what likelihood.NOM that Ivan.NOM not will come she.NOM
rastet ili umen'šaetsja?
grows or decreases?
Intended: 'What is the likelihood$_i$ that Ivan will not come? Is it$_i$ increassing or decreasing?'

Secondly, when these nominals appear in constructions not expressing epistemic judgments (which do not permit abstract incorporation), they require a *to*,*čto*-clause marked with genitive case, as shown in (83b)–(84b) and (86b), *čto*-clauses are degraded, as shown in (83a)–(84a) and (86a).[37]

(83) a. * Oni obsuždali verojatnost', čto on ne priedet.
they.NOM discussed likelihood.ACC that he.NOM not will come
Intended: 'They discussed the likelihood that he would not come.'

b. Oni obsuždali verojatnost' togo, čto on ne
they.NOM discussed likelihood.ACC it.GEN that he.NOM not
priedet.
will come
'They discussed the likelihood that he would not come.'

(84) a. * Èto umen'šaet verojatnost', čto on ne priedet.
this.NOM decreases likelihood.ACC that he.NOM not will come
Intended: 'This decreases the likelihood that he will not come.'

[37] Again, as in the case of PROOF-class nouns and SubjExp nominals, the ungrammaticality is not absolute; see section 4.5.

b. Èto umen'šaet verojatnost' togo, čto on ne
this.NOM decreases likelihood.ACC it.GEN that he.NOM not
priedet.
will come
'This decreases the likelihood that he will not come.'

(85) a. * Verojatnost', čto on ne priedet, rastet / sliškom
likelihood.NOM that he.NOM not will come grows too
nizkaja
low
Intended: 'The likelihood that he will not come is increasing/too low.'

b. Verojatnost' togo, čto on ne priedet, rastet /
likelihood.NOM it.GEN that he.NOM not will come grows
sliškom nizkaja
too low
'The likelihood that he will not come is increasing/too low.'

(86) a. * Oni obnaružili/zametili priznaki, čto na Marse est'
they.NOM discovered/noticed signs.ACC that on Mars.LOC is
žizn'.
life.NOM
Intended: 'They discovered/noticed the signs that there is life on Mars.'

b. Oni obnaružili/zametili priznaki togo, čto na
they.NOM discovered/noticed signs.ACC it.GEN that on
Marse est' žizn'.
Mars.LOC is life.NOM
'They discovered/noticed the signs that there is life on Mars.'

4.4.3 Licensing by the implicit judge

Now we can turn to the licensing of P_{CP} in examples in (75a)–(75c) and (76a)–(76b). The question posed by these examples is how the licensing requirement of P_{CP} is satisfied given that apparently there is no holder or utterer argument in the epistemic predicates, obtained in these examples after incorporation and which we saw in (81).

To address this question, I will follow Stephenson's (2007) proposal that epistemic modals (as well as predicates of personal taste) are judge-dependent. That is, their interpretation depends on the judge parameter (besides the world parameter) of the context of interpretation, which specifies the individual from whose point of view the epistemic judgment is made. This parameter is normally set to the speaker of the utterance (or the hearer in question), which

explains why modals like *might* generally express the speaker's epistemic judgment. The (simplified) truth-conditions for *might* are given in (87).[38]

(87) $[\![\textit{might}]\!]^{w,j} =$
$\lambda p_{\langle s,\langle et\rangle\rangle}$. there is some world w' compatible with j's knowledge in w such that $p(w')(j) = 1$

I would like to propose a similar analysis for constructions in (75a)–(75c) and (76a), assuming that the judge-dependence is built into the meanings of these predicates, just like in the case of *might*. Below I illustrate this for (75a). I assume that the truth conditions of the relevant complex predicate are as in (88). Given that these truth conditions involve reference to the judge and assuming that the judge is construed as the holder of the proposition expressed by the complement, P_{CP} can appropriately modify this predicate. It will be interpreted as the **hold** relation and will be predicated of the judge argument. This is shown in (89).

(88) $[\![\textit{verojatnost'}$ 'likelihood' + $BE_{exist}]\!]^{w,j} =$
$\lambda p_{\langle s,\langle et\rangle\rangle}$. there is some world w' compatible with j's knowledge in w such that $p(w')(j) = 1$

(89) $[\![P_{CP}$ + *verojatnost'* 'likelihood' + $BE_{exist}]\!]^{w,j} =$
$\lambda p_{\langle s,\langle et\rangle\rangle}$. there is some world w' compatible with j's knowledge in w such that $p(w')(j) = 1$ & $R(j,p)$ & $R =$ **hold**

Similar analyses can be given to the cases in (75b)–(75c) and (76a).

As for the example in (76b), it will be slightly different. Here the judge dependency will be encoded directly as an argument that can optionally be realized as a *for*-phrase, as shown in (90). (This is similar to predicates of personal taste such as *tasty* in Stephenson 2007.) The argument structure of the relevant complex predicate can be given as in (91). Because the judge argument is construed as the holder of the proposition, P_{CP} can be interpreted as the **hold** relation and predicated of this argument, as illustrated in (92).

(90) Èto dlja menja/nee vernyj priznak, čto kto-to
this.NOM for me.GEN/her.GEN true sign.NOM that someone.NOM
doma.
home
'This is a true sign for me that someone is home.'

(91) *priznak* 'sign' + BE_{copula}:
$\lambda j.\lambda x.\lambda p.$ x indicates p to the judge j

(92) P_{CP} + *priznak* 'sign' + BE_{copula}:
$\lambda j.\lambda x.\lambda p.$ x indicates p to the judge j & $R(j,p)$ & $R =$ **hold**

[38] For simplicity's sake, I omit the time parameter.

Given this analysis of the constructions and assuming P_{CP} can be licensed by the judge argument/parameter, we correctly predict the licensing of *čto*-clauses with *verojatnost'* 'likelihood' and *priznak* 'sign.'

Now I will present some independent evidence showing that P_{CP} can be licensed by the judge. The evidence comes from the predicates *vinovat* 'guilty' and *povezti* 'have luck'. These predicates take *čto*-clause complements, as shown in (93b)–(94b), but fail to assign structural Accusative/Nominative case to their DP complement, as shown in (93a)–(94a).

(93) a. On vinovat { v ètom / * èto}.
he.NOM guilty in this.LOC this.ACC
'He is to blame for this.'

b. On vinovat, čto oni opozdali.
he.NOM guilty that they.NOM are late
'He is to blame that they are late.'

(94) a. Emu povezlo { v ètom / * èto}.
him.DAT have luck in this.LOC this.ACC
'He had luck in this.'

b. Emu povezlo, čto pogoda byla xorošaja.
him.DAT have luck that weather.NOM was good
'He was lucky that the weather was good.'

According to the Case requirement, the *čto*-clauses in (93b)–(94b) have to be introduced by P_{CP}. Clearly the subject in (93b) and the dative argument in (94b) cannot satisfy the licensing condition for P_{CP} because they are not interpreted as the holder, as shown by the lack of contradiction in (95a)-(95b). This presents a puzzle.

(95) a. On vinovat, čto oni opozdali, xotja on ob
he.NOM guilty that they.NOM are late although he.NOM about
ètom ne podozrevaet.
this.LOC not suspects
'He is to blame that they are late although he has no clue about this (them being late).'

b. Emu povezlo, čto ja emu pomog, xotja on
him.DAT have luck that I.NOM him.DAT helped although he.NOM
ob ètom ne podozrevaet.
about this.LOC not suspects
'He was lucky that I helped him although he has no clue about this (me helping him).'

If, however, P_{CP} can be licensed by the judge, the examples in (93b)–(94b) no longer present a puzzle. They are clearly evaluative and thus are judge-dependent. Because the *čto*-clause expresses the opinion of the judge and so

construed as the holder, P_{CP} can be interpreted as the **hold** relation predicated of the judge.

There is some interesting syntactic evidence showing that expression of subjective judgment is crucial for the licensing of *čto*-clauses in these cases. When we embed the same predicates, they no longer allow *čto*-clauses, as shown in (96a)–(97a), but instead require *to*,*čto*-clauses, as in (96b)–(97b).[39]

(96) a. * Ja sčitaju ego vinovatym, čto oni opozdali.
I.NOM consider him.ACC guilty that they.NOM are late
Intended: 'I consider him to blame for the fact that they are late.'

b. Ja sčitaju ego vinovatym v tom, čto oni opozdali.
I.NOM consider him.ACC guilty in it.LOC that they.NOM are late
'I consider him to blame for the fact that they are late.'

(97) a. * Emu možet povezti, čto pogoda budet xorošaja.
him.DAT may have luck that weather.NOM will be good
Intended: 'He may be lucky in that the weather will be good.'

b. Emu možet povezti v tom, čto pogoda budet xorošaja.
him.DAT may have luck in it.LOC that weather.NOM will be good
'He may be lucky in that the weather will be good.'

These data follow naturally if the judge-dependence property of the predicate is syntactically encoded. Concretely, I will assume that evaluative/epistemic sentences have a designated syntactic projection in the Left Periphery of the sentence, as proposed in Speas and Tenny 2003). Now suppose that to license the judge-dependence property, the predicate has to raise to this projection. Then in the examples in (96a)–(97a) the predicates will not be able to raise (because of the intervening material) and hence they will not be judge-dependent in the relevant sense. Consequently, P_{CP} will not be licensed and the *čto*-clause complement will be correctly predicated to be disallowed.

The same argument can be made for the constructions with *verojatnost'* 'likelihood' and *priznak* 'sign' in (75a)–(76a). Given that P_{CP} in these constructions is licensed by the judge-dependence of the predicate and assuming that the judge has to be syntactically encoded in the way outlined above, we correctly predict that, when embedded, these nominals will no longer take *čto*-clauses. This expectation is borne out, as shown in (98a)–(99a); note that the corresponding sentences with *to*,*čto*-clauses are fine, as shown in (98b)–(99b).

[39] Note that the adjectival predicate in (96a) must have a long form in this construction. See footnote 27.

(98) a. * Dolžna byt' verojatnost', čto èto skoro proizojdet.
must be likelihood.NOM that this.NOM soon will happen
Intended: 'There must be likelihood that this will happen soon.'

b. Dolžna byt' verojatnost' togo, čto èto skoro
must be likelihood.NOM it.GEN that this.NOM soon
proizojdet.
will happen
'There must be likelihood that this will happen soon.'

(99) a. * Dolžny byt' priznaki, čto èkonomika
must be likelihood.NOM that economy.NOM
vosstanavlivaetsja.
recovers
Intended: 'There must be signs that economy is recovering.'

b. Dolžny byt' priznaki togo, čto èkonomika
must be likelihood.NOM it.GEN that economy.NOM
vosstanavlivaetsja.
recovers
'There must be signs that economy is recovering.'

To summarize, I argued that *čto*-clause complements of other relational nouns such as *verojatnost'* 'likelihood' and *priznak* 'sign' are also licensed only in abstract incorporation contexts, as in the case of SubjExp nominals and PROOF-class nouns. This again follows from the Case requirement and the P_{CP} proposal. I also argued that in the constructions with these nominals P_{CP} is licensed by the implicit judge (construed as the holder), the mode of licensing we haven't encountered before but which is independently motivated by the data.

4.5 A note on the graded nature of grammaticality judgments

Before concluding this chapter, I would like to say a few words about the degree of grammaticality of sentences involving *čto*-clause of nouns discussed in this chapter outside noun incorporation contexts. Although all of these examples are clearly degraded, which I indicated with a star, they do not produce absolute ungrammaticality of the kind one finds with Case Filter violations. In fact, judgments may vary with sentences and speakers. In addition, one occasionally finds such sentences on the Internet. This variability certainly does not undermine the validity of the data, yet we would want to have some understanding of what might be the source of such variability. This is especially important in view of the fact that the adjunction condition on P_{CP} in (55), which licenses *čto*-clauses in the relevant cases, is a morphological condition and as such is

expected to produce strong grammaticality judgments. The same is true of the condition on incorporation in (33), which has a purely syntactic nature. Violations of these conditions should lead to a categorical ban on P_{CP}, leading, in turn, to a violation of the Case requirement, another syntactic condition which is expected to produce strong ungrammaticality.

In order to understand the graded nature of judgments regarding *čto*-clause complements of non-incorporated nouns, I would like to propose that in those cases, the *čto*-clause can (marginally) be analyzed as adjoined to the projection of the nominal. As an adjunct, the clause obviates the Case requirement and thus does not require P_{CP} for licensing.[40] Such examples are still degraded because the adjunction structure clashes with the argumental interpretation of the *čto*-clause. Assuming that *čto*-clause adjoined to the nominal are interpreted as appositives, i.e. explicating the content of the nominal, as proposed in Stowell 1981, we arrive at a semantically deviant non-argumental interpretation of the *čto*-clause. Because this is a semantic violation, we expect that it will have a graded nature.

This view is supported by the following considerations. First of all, observe that *čto*-clause complements of *nadežda* 'hope', *uverennost'* 'hope' and *verojatnost'* 'likelihood' are not entirely unacceptable in the post-copular construction, as we saw in (3a)–(3b), suggesting the possibility of the marginal appositive construal of the *čto*-clause with these nouns. Also note that *somnenie* 'doubt', which categorically resists the copular construction, as we saw in (3c), generally produces stronger grammaticality judgments when appearing with a *čto*-clause outside the CP-licensing contexts (see footnote 9). As for the PROOF-class nouns, which also categorically resist the copular construction (with the argumental reading of the complement), the marginal possibility of the adjunction/appositive analysis is supported by the following fact. The PROOF-class nouns seem to marginally allow *to*,*čto*-clauses embedded in a PP headed by *o* 'about'. This is shown by the naturally occurring examples in (100a)–(100b), which sound stilted to my ear but not entirely unacceptable.

(100) a. Trasty mogli predstavit' dokazatel'stva o tom, čto u
trusts could present proofs.ACC about it.LOC that at
nix neskol'ko vygodopriobretatelej.
them.GEN several beneficiaries.GEN
'Trusts could present the proof that they had several beneficiaries.'
http://www.kommersant.ru/doc/2607783

b. "Gazprom" polučil ot bankov podtverždenie o
Gazprom got from banks.GEN confirmation.ACC about
tom, čto ⟨kompanija⟩ zaplatila pervuju čast' dolga.
it.LOC that company.NOM paid first part.ACC debt.GEN
'Gazprom got a confirmation from the banks about the fact that

[40] More specifically, *čto*-clauses adjoined to the nominal will not project a DP-layer, assuming that only true argumental clauses do so. See section 5.2 from Chapter 5 for some discussion.

the company paid the first part of the debt.'
http://lenta.ru/news/2014/11/05/gaz/

The *o tom,čto*-clause, which we see in these examples, can attach to virtually any noun that has information content and thus has to be analyzed as an adjunct bearing the aboutness relation.

4.6 Summary and interim conclusion

In this chapter I have discussed *čto*-clause complements of nouns, focusing on those classes of nouns that have been shown to take true sentential arguments, such as nominalizations of subject Experiencer predicates, PROOF-class nouns and also certain other relational nouns. I showed that *čto*-clause complements of these nouns are only licensed in a restricted set of contexts, which I analyzed as involving abstract incorporation of the noun into the higher predicate. I argued that this restriction follows from the Case requirement and the P_{CP} proposal. Given that nouns do not assign structural Case, the *čto*-clause complements of nouns could only be licensed by P_{CP}. Assuming that P_{CP} can only be licensed by adjunction to a [+V] head, we derive that fact that the required configuration for the adjunction of P_{CP} will only be created in the abstract incorporation contexts, leading to the licensing of *čto*-clause complements in these environments, thus accounting for the restrictions on their distribution.

CHAPTER 5

Summary, broader implications, conclusion

5.1 Summary

The starting point of this dissertation is the idea that clausal complements project a null DP-layer in certain positions, e.g., when functioning as subjects or topics (Davies and Dubinsky 2009, and earlier work cited therein, Takahashi 2010, see also Bošković 1995 for a similar proposal, and Koster 1978 for a precursor of this idea).[1] In this dissertation I explored a more general conjecture based on this idea, which I formulate in (1). I provided evidence for this conjecture on the basis of the distributional restrictions on Russian complement *čto*-clauses.

(1) *The DP-layer conjecture*
Clausal complements always project a DP-layer.

The properties of the Russian complementation system make this conjecture immediately plausible given that Russian has the *to*,*čto*-clause construction, comprising a *čto*-clause preceded by the correlative *to* (see Khomitsevich 2008, Stepanov 2001, Comrie 1971). I show that Russian *to*,*čto*-clauses instantiate *čto*-clauses with an overt DP-layer and propose that 'bare' *čto*-clauses have the same structure except that their DP-layer is left unpronounced. The evidence for this analysis comes from the distributional differences between *to*,*čto*-

[1] Koster (1978) argues that apparent sentential subjects are topic phrases linked to a phonetically null DP in the subject position (see Alrenga 2005 for a recent implementation of this idea). Bošković (1995) analyzes CPs in subject and topic position as having Case features.

clauses and *čto*-clauses, which follow from this analysis, given certain plausible assumptions about Case realization (see Chapter 2).

Given the DP-layer conjecture, we expect that *čto*-clauses (and complement clauses in general) will have Case features and thus will only appear in those positions where Case features can be checked. This leads to the proposal that *čto*-clauses in apparent "Caseless" positions, i.e. those where no (structural) Case is licensed such as complements of nouns, adjectives and –Acc verbs, will be licensed by a silent element, specifically a null preposition (P_{CP}) that will check the relevant Case features. I formulated this as the Case requirement of *čto*-clauses in (2).

(2) *The Case requirement of* čto*-clauses*
A *čto*-clause complement has to be licensed by Case. This can be realized in one of the following two ways:
(a) the sentential complement is licensed by structural Case;
(b) the sentential complement is licensed by a (possibly silent) P.

I provided evidence for the Case requirement by showing that *čto*-clauses in "Caseless" position are indeed introduced by P_{CP}. I detected the presence of P_{CP} by its semantic and morphosyntactic properties, which I derive from general principles. I argued that in order to satisfy Chomsky's principle of Full Interpretation, P_{CP} gets a default interpretation from the context. In particular, I proposed, adopting the insight from Pustejovsky's (1995) analysis of "null" verbs in sentences like *Mary began a novel*, that the content of P_{CP} is provided by the QUALIA structure of `proposition`, i.e. the semantic type of *čto*-clauses, which involves the **utter** and **hold** predicates as the basic relations involving propositions. This leads to the licensing condition in (3).

(3) *The licensing condition of* P_{CP}
In order for P_{CP} to be licensed, one of the arguments of the predicate taking P_{CP} as its complement has to be construed as the utterer or the holder of the proposition expressed by the complement of P_{CP} by virtue of the semantics of the predicate and the linguistic context.

I also argued, following Pesetsky (1995), that P_{CP}, as a zero element, is an affix and thus has to adjoin to the higher predicate for affixation, imposing a further restriction on its host, formulated in (4); cf. a similar proposal about the null C in Bošković and Lasnik 2003. The resultant adjunction structure is interpreted as involving modification of the content of the higher predicate, where P_{CP} is predicated of one of the arguments of this predicate.

(4) *The adjunction condition of* P_{CP}
P_{CP} adjoins to a [+V] head.

The consequence of this proposal is that *čto*-clauses will appear only in those "Caseless" positions where the conditions in (3) and (4) are satisfied. I

showed that this is precisely the case, focusing on the two sets of restrictions on *čto*-clause complements.

In Chapter 3 I discussed the agentivity puzzle, according to which a number of communicative verbs disallow *čto*-clause complements in their non-agentive uses. I argued that the agentivity puzzle follows from the Case requirement and the licensing condition for P_{CP}. In particular, I showed that *čto*-clauses are disallowed only with those verbs that both require P_{CP} (by virtue of not assigning structural Case) and, at the same time, fail to license P_{CP} by virtue of not having an argument that can be construed as the holder or the utterer (or because the P_{CP} is not in the complement position and thus fails to adjoin to the verb). As an important component of the argument for this account, I ruled out the possibility that the failure of the relevant non-agentive verbs to take *čto*-clauses can be explained by the selectional properties of the verbs. I argued that the corresponding agentive verbs, which allow *čto*-clauses, can and, under minimal assumptions, must be analyzed as corresponding to the same lexical entry with the same basic thematic structure and selectional properties as the relevant non-agentive verbs. This is readily supported by the fact that both the agentive and the non-agentive verbs can take *to*,*čto*-clause complement with the respective PP/Oblique marking. I also proposed a concrete unified account of the thematic structure of the alternating verbs based on Reinhart's (2002; To appear) Theta System.

In Chapter 4 I discussed *čto*-clause complements of nouns. I focused on nominalizations of subject experiencer verbs and abstract relational nouns, both of which require true sentential arguments (as opposed to other nouns where the clause can potentially function as an appositive modifier). I showed that with these nouns *čto*-clauses are allowed only when the relevant noun undergoes abstract incorporation into the higher predicate, which can only occur when the noun does not project a DP layer and is semantically linked to the higher verb in an appropriate way. Whenever the conditions for incorporation are not in place, *čto*-clauses are degraded. I argued that these data straightforwardly follow from the Case requirement and the licensing conditions for P_{CP}. Given that nouns do not assign structural Case, the *čto*-clause will be introduced by P_{CP}, which will only be licensed in the abstract incorporation cases assuming that incorporation creates a [+V] predicate, to which P_{CP} can adjoin (and which would not be possible with nominal predicates before incorporation).

Summarizing, the argument for the Case requirement of complement clauses runs as follows. Complement clauses are allowed in "Caseless" environments (which satisfy their selectional restrictions) only if these environments have some special properties (a [+V] predicate, the holder/utterer argument). These special properties follow if complements in "Caseless" positions are introduced by a null P (assuming the principle of Full Interpretation, a variant of Pustejovsky's (1995) proposal, and an affixal nature of the null P). In its turn, the presence of null P in "Caseless" positions follows if complement clauses need Case (assuming that Case is a formal feature and that has to be

licensed by a structural-Case-assigner or by P). Therefore, complement clauses are licensed by Case.

To conclude, the observed distributional restrictions on *čto*-clauses provide convincing evidence for the Case requirement in (2), calling into question the standard conception that complement clauses do not need Case (cf., e.g., Pesetsky 1982, Safir 1985, Pesetsky and Torrego 2011).

At this point we may ask two more general questions about (a) the broader theoretical and cross-linguistic implications of the Case requirement; and (b) the status of the data meant to support the Case requirement.

5.2 Theoretical and cross-linguistic implications of the Case requirement

The Case requirement in (2), which I argued for in this dissertation, provides strong support for the DP-layer conjecture, leading to a more general question about the possible theoretical motivation for this conjecture. I would like to suggest the following answer to this question, which essentially traces back to Aoun's/Chomsky's (1981) Visibility Condition, as famously developed by Stowell (1981) in his dissertation. Put simply, the Visibility Condition requires arguments to have Case in order to be visible for θ-marking. Rendering this in current terms, we may say that an argument needs to have φ-features in order to be visible for θ-marking. Indeed, if argumenthood is to be represented by some syntactic property, then having φ-features is a good candidate for this property, given that DP arguments already have this property. This will entail that clausal arguments also have φ-features, as has already been argued by Picallo (2002).[2] Now assuming that having (valued) φ-features is a property of DP, clausal arguments will universally project a DP-layer.[3]

Given the general nature of the DP-layer conjecture, we expect that clausal complements will universally require Case. In this dissertation I showed this for Russian, focusing on a number of distributional restrictions on *čto*-clause complements. Interestingly, similar restrictions are not immediately observed in languages like English and Dutch.[4] Thus, for example, English allows *that*-

[2] I leave open the question about the exact feature specification of clausal arguments. See some discussion in Picallo 2002.

[3] See Pereltsvaig 2006 for some discussion about the relation between having φ-features and DP-hood.

[4] Although the question requires further investigation. Cf. some contrasts observed between *that*-clauses and PP complements with the adjectival equivalents of the non-agentive variants of the agentivity puzzle verbs such as *indicative*, *suggestive* and *reminiscent* and the non-agentive epistemic *remind* in (ia)–(id).

(5) a. ?* The obtained results are indicative that this method can be used to investigate the relevant parameters. (cf. . . . indicative of the fact that. . .)

b. ?* These data are suggestive that aerobic fitness enhances cognitive strategies. (cf. . . . suggestive of the fact that. . .)

clause complements of nouns outside the abstract incorporation contexts as defined in Chapter 4. This is illustrated for SubjExp nominalizations in (6a)–(6c) and PROOF-class nouns in (7a)–(7b).

(6) a. I was surprised at Mary's happiness that Charles is leaving.
b. Kevin's certainty that the tent is in the car is not reassuring.
c. Bill's awareness that his mother was ill was unfortunate.
(Stowell 1981:205)

(7) a. I liked your proof that Mary could not have committed the crime.
b. My demonstration that Sue was insane was accepted by the court.
(Pesetsky and Torrego 2004:520)

It remains to be seen how the distributional differences between complement clauses in languages like Russian and languages like English (and Dutch) can be explained within the present proposal. One promising path is to capitalize on the independent difference between Russian and English in the status of the complementizer and the null D that I proposed in Chapter 2. I argued that in Russian the highest element of a *čto*-clause is null D. In contrast, assuming the availability of *that*-to-D movement in English, no null D element is present in English complement clauses. So just as in English *that*-less clauses will have a more limited distribution than clauses with an overt complementizer, one might expect an additional licensing requirement on Russian *čto*-clauses. Exploring the consequence of this contrast is a matter of further research.

As a general remark, we may note that, independently of how exactly the issue of cross-linguistic variation in the distribution of clausal complements is going to be resolved, viewing the Case requirement of clauses as essentially boiling down to (sharing) φ-features provides a new and interesting way of looking at the long standing problem of the distributional differences between nominal and clausal arguments.

5.3 A note on the status of the data

Before concluding, I would like to say a few words about the status of the acceptability judgments regarding examples that I used to argue for the Case requirement of *čto*-clauses. The crucial examples involved *čto*-clauses being disallowed in a subset of "Caseless" positions (i.e. those where P_{CP} is not licensed). As I noted throughout the text, many of such examples have an intermediate

c. * The names of the rivers are reminiscent that the route was once part of the area through which the Pehuenche peoples were distributed geographically. (cf. ... reminiscent of the fact that...)
d. * The names of the rivers remind that the route was once part of the area through which the Pehuenche peoples were distributed geographically. (cf. ... remind of the fact that...)

acceptability status and do not produce absolute ungrammaticality of the kind we see in Case Filter violations. I showed that some variability in acceptability judgments is in fact expected under the proposed account.

In discussing the agentivity puzzle, I argued that the restrictions on *čto*-clause complements arise from the joint effect of the Case requirement and the licensing condition for P_{CP}. Whereas the Case requirement in (2) is a structural condition (just like the Case Filter), whose violation would produce strong ungrammaticality, the licensing condition in (3) is semantic in nature and, as a result, its violations are expected to produce milder contrasts. In particular, such violations will result in conflicts between the content of P_{CP} and the meaning and s-selectional requirements of the verb. I hypothesized that speakers will resort to various strategies to resolve these conflicts, either by constructing hypothetical contexts where inanimate entities can utter propositions, or by coercing the meaning of the verb into a causative interpretation (involving the holder argument), etc. The crucial point is that all such violations will be of a non-structural sort and hence we will not lead to strong ungrammaticality. In contrast, violations of the purely structural adjunction requirement of P_{CP} in (4), as in the case of *pugat'* 'frighten', will produce strong acceptability judgments, as expected.

As for *čto*-clause complements of nouns, I argued that *čto*-clause complements that are predicted to be banned under the P_{CP} proposal can still obviate the Case requirement by virtue of marginally forming an adjunction structure, as in Stowell's (1981) proposal. Assuming that this structure has an appositive construal, it will clash with the argumental status of the *čto*-clause. The resultant violation, however, will be semantic/pragmatic in nature and thus will again lead to less robust acceptability judgments.

As we can see, in many cases the intermediate status and variability of the acceptability judgments brings extra-grammatical considerations into the picture. The "fuzzy" nature of these considerations certainly calls for a more elaborate experimental investigation, which has not been undertaken in context of the present study. This is an obvious limitation of this study and I leave such investigation for future research.

5.4 Conclusion

In this dissertation I discussed a number of puzzling restrictions on the distribution of *čto*-clause complements, in particular the ban on *čto*-clause complements with the non-agentive uses of sentential-complement-taking verbs and with sentential-complement-taking nouns outside a restricted set of linguistic contexts. To account for these restrictions, I proposed that *čto*-clause complements are subject to the Case requirement, according to which *čto*-clauses are licensed either by structural Case or – in "Caseless" positions – by a null preposition (P_{CP}).

I developed a proposal about the nature of P_{CP}, arguing that it has li-

censing conditions, which stem from its independently motivated semantic and morphological properties, concretely, its interpretation as a relational element whose content is provided by the **utter** and **hold** relations in the QUALIA structure of its complement and its affixal nature. I showed that the Case requirement and the P_{CP} proposal straightforwardly account for the observed restrictions on *čto*-clause complements.

If the proposed account is correct, it strongly supports the conjecture that sentential arguments are uniformly DPs, thus allowing to solve the long-standing puzzle about the apparent distributional differences between sentential vs. nominal arguments.

The proposed account also tells us something interesting about the grammar in general. As we have seen, the observed restrictions on *čto*-clause complements are not directly derived from the violation of the Case requirement. Rather they emerge as a result of the violation of the licensing conditions imposed by P_{CP}. The licensing of P_{CP}, as conceived of in the proposed account, occurs in the syntax proper as manifested by the fact that it feeds semantic interpretation. At the same time, this licensing process evidently must have access to some rather high-level interpretive properties such as the holder/utterer interpretation. As a consequence, these properties have to be visible to the computational system, suggesting that they have an important status in the grammar, which is something not expected a priori and not generally acknowledged.

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Samenvatting in het Nederlands

Dit proefschrift beschrijft en verklaart de distributie van zinnen met het voegwoord *čto* in het Russisch. Hoewel zinnen met het voegwoord *čto* in veel opzichten lijken op zinnen met het voegwoord *dat* in het Nederlands of *that* in het Engels, is het voorkomen van *čto*-zinnen als object (*complement*) van een werkwoord of naamwoord, toch beperkter dan dat van hun Nederlandse en Engels tegenhangers. In het algemeen gaat de literatuur ervanuit dat de distributie van zowel complementszinnen als nominale complementen wordt bepaald door c(ategoriale)- en s(emantische)- selectie (zie bijvoorbeeld Grimshaw 1979). Dus zinnen kunnen alleen voorkomen als complementen van werkwoorden die de semantische categorie 'propositie' selecteren, waarbij proposities ook soms door nominale constructies kunnen worden gerealiseerd. Volgens de standaardanalyse moeten nominale complementen aan een verdere eis voldoen, namelijk dat ze in een positie staan waarin een naamval kan worden toegekend. Voor de standaardanalyse schuilt hierin een belangrijk verschil met zinscomplementen. Voor de laatste zou deze eis niet gelden (zie bijvoorbeeld Pesetsky 1982, 1991). In dit proefschrift laat ik zien dat de beperkingen op het voorkomen van *čto*-zinnen in het Russisch op een eenvoudige manier verklaard kunnen worden door aan te nemen dat deze, net als nominale complementen alleen in naamvalsposities kunnen voorkomen, in tegenstelling tot wat de standaardanalyse aangeeft.

De theoretische motivatie voor het idee dat complementszinnen in een naamvalspositie moeten staan komt van een eerder voorstel dat ze in elk geval in bepaalde syntactische posities een nominale schil projecteren (een "DP-schil") (zie bijvoorbeeld Davies and Dubinsky 2009, Takahashi 2010 en Koster 1978 voor een voorloper van dit idee). Op basis van dit idee heb ik een meer algemene hypothese ontwikkeld, namelijk dat de Russische *čto*-zinnen altijd zo'n DP-schil projecteren. Gezien deze DP-schil zullen *čto*-zinnen dus alleen in posities kunnen voorkomen waarin naamvalskenmerken kunnen worden gecheckt. Wel komen *čto*-zinnen ook in een aantal omgevingen voor die volgens de standaardanalyse "naamvalloos" zijn, zoals complementen van

substantieven, adjectieven en sommige werkwoorden. De vraag hoe dit kan vormt de kern van dit onderzoek. Het ging erom een factor te vinden die omgevingen met naamval zodanig uitbreidt dat de posities waar *čto*-zinnen kunnen voorkomen daar nu precies binnen vallen. Mijn voorstel is dat die factor bestaat uit een "leeg" voorzetsel, P_{CP}.

Een algemeen aanvaard idee is dat lege elementen onderworpen zijn aan specifieke condities, zogenaamde licentievoorwaarden. P_{CP} heeft derhalve zijn eigen licentievoorwaarden. Een van die voorwaarden is dat P_{CP} een interpretatie moet kunnen krijgen (Chomsky 1995). In het bijzonder stel ik voor, gebaseerd op een inzicht van Pustejovsky 1995, dat P_{CP} geïnterpreteerd wordt op basis van de relatie tussen de complementzin en één van de argumenten van het werkwoord. Net zoals nominale uitdrukking als *boek* een soort typerende eigenschappen hebben (*qualia* in de zin van Pustejovsky), zoals 'leesbaar', of 'schrijfprodukt', maar niet 'verscheurbaar', hebben zinnen *qualia*, zoals 'door iemand geuit', of 'door iemand geloofd'. De stelling is dat de P_{CP} als licentievoorwaarde heeft dat hij geïnterpreteerd kan worden als -– hier gebruik ik de Engelse technische termen - een 'utter' of een 'hold' relatie. Deze relatie is gebaseerd op de *qualia* structuur van het semantische type van zijn complementzin, namelijk propositie, in samenhang met de betekenis van het werkwoord. De consequentie is dat wanneer de betekenis van het werkwoord niet verenigbaar is met een 'utter' of 'hold' relatie er aan de licentievoorwaarde van P_{CP} niet voldaan is. Deze kan dan niet aanwezig zijn, en daarmee is ook een *čto*-zin in deze positie uitgesloten. Dit levert dus een duidelijk, hoewel indirect, verband op tussen de semantische eigenschappen van een werkwoord en het toelaten van *čto*-zinnen als complement.

Bij de technische uitvoering van dit idee ga ik er vanuit, gebaseerd op Pesetsky (1995), dat de P_{CP}, als leeg element, een affix is dat aangehecht moet worden aan een [+V] hoofd. De resulterende adjunctiestructuur wordt geïnterpreteerd als modificatie van het werkwoord, waarbij de P_{CP}-relatie ('utter' of 'hold') één van de argumenten van het werkwoord met het werkwoord deelt. Zo leveren de licentievoorwaarden van P_{CP} een verklaring voor de beperkingen op de distributie van *čto*-zinnen.

In de hoofdstukken 2, 3 en 4 geef ik empirische onderbouwing voor de "DP-schil" en de P_{CP} hypothese.

In hoofdstuk 2 onderzoek ik de eigenschappen van het Russische complementatiesysteem en lever bewijs voor de DP-schil van *čto*-zinnen. Ik richt me daarvoor op de distributionele verschillen tussen 'kale' *čto*-zinnen en een andere realisatie van zinscomplementen in de vorm van *to*,*čto*-zinnen, bestaand uit een *čto*-zin voorafgegaan door het correlatieve voornaamwoord *to* 'het/dat' (zie Khomitsevich 2008, Stepanov 2001, Comrie 1971). Ik analyseer *to*,*čto*-zinnen als *čto*-zinnen met een fonetisch gerealiseerde DP-schil. In mijn analyse hebben *čto*-zinnen dezelfde structuur, behalve dat de DP-schil onuitgesproken blijft. Ik stel verder voor dat de fonetische realisatie van de DP-schil wordt bepaald door de eigenschappen van de naamval die wordt toegekend aan de complementszin. Kort en goed, een fonetisch gerealiseerde prepositie heeft

een fonetisch gerealiseerde naamval, bij een fonetisch lege prepositie is ook de naamval fonetisch leeg. *To*,*čto*-zinnen komen voor wanneer de naamval gerealiseerd moet worden, terwijl *čto*-zinnen voorkomen bij een niet-gerealiseerde naamval. Dit voorstel levert een verklaring op voor een reeks van distributionele verschillen tussen *čto*-zinnen en *to*,*čto*-zinnen.

In hoofdstuk 3 bespreek ik het belangrijkste argument voor de P_{CP} analyse. Dit komt van wat ik de agentiviteitspuzzel noem. De agentiviteitspuzzel houdt in dat een aantal werkwoorden die *čto*-zinnen als complement nemen (zoals *govorit'* 'zeggen', *grozit'*, 'dreigen', *namekat'* 'een hint geven', *napominat'* 'herinneren'), *čto*-zinnen verbieden als ze niet-agentief worden gebruikt, terwijl ze dan wel *to*,*čto*-zinnen als complement nemen. Cruciaal is daarbij dat de agentiviteitspuzzel alleen betrekking heeft op werkwoorden die geen accusatief kunnen toekennen bij hun niet-agentief gebruik en niet bijvoorbeeld op werkwoorden zoals *dokazyvat'* 'bewijzen' die wel een accusatief toekennen.

De naamvalseis voor *čto*-zinnen biedt een verklaring voor dit intrigerende patroon. Gezien de naamvalseis, moeten *čto*-zinnen van de werkwoorden die de agentiviteitspuzzel vertonen worden ingeleid door P_{CP} (omdat er bij niet-agentief gebruik geen structurele naamval beschikbaar is, zie Reinhart 2002). Echter, bij deze werkwoorden is ook niet aan de licentievoorwaarden voor P_{CP} voldaan, aangezien er geen argument is dat kan worden opgevat als de "holder" of de "utterer". Daarom zijn *čto*-zinnen uitgesloten als complement bij het niet-agentief gebruik van de genoemde werkwoorden. Ik laat verder zien dat andere mogelijkheden om hun distributie te verklaren (bijvoorbeeld in termen van selectie) uitgesloten kunnen worden. Voorts stel ik een geünificeerde analyse voor van de thematische structuur van de alternerende werkwoorden in het kader van Reinhart's (2002; To appear) Theta System.

In hoofdstuk 4 bespreek ik *čto*-complementszinnen van substantieven. Ik richt mij op nominalisaties van "subject experiencer" werkwoorden en abstracte relationele naamwoorden zoals *dokazatel'stvo* 'bewijs', *verojatnost'* 'waarschijnlijkheid' enz. Deze nominalisaties hebben 'echte' complementszinnen. Dit in tegenstelling tot andere substantieven, zoals *fakt* 'feit' waarvan de "complementszin" geanalyseerd kan worden als een appositief adjunct. Ik laat zien dat in deze gevallen *čto*-zinnen alleen zijn toegestaan wanneer het substantief een eenheid vormt met het hogere werkwoord (door middel van abstracte incorporatie). Dat kan alleen gebeuren wanneer het substantief geen DP-schil projecteert. Dit verklaart een aantal opvallende beperkingen: als er niet aan deze voorwaarde wordt voldaan, zijn *čto*-zinnen uitgesloten.

Dit feitenpatroon wordt verklaard door de naamvalseis aan *čto*-zinnen in combinatie met de licentievoorwaarden voor P_{CP}. Omdat substantieven geen structurele naamval toekennen, moeten *čto*-zinnen worden ingeleid door P_{CP}. Zoals eerder aangegeven moet P_{CP} aanhechten aan een [+V] predikaat. Dit predikaat is echter alleen voor de P_{CP} toegankelijk wanneer er (abstracte) incorporatie van het nominale hoofd heeft plaatsgevonden.

Samenvattend, leveren de waargenomen distributionele beperkingen op *čto*-zinnen zoals besproken in hoofdstuk 3 en 4 een overtuigend bewijs op voor

de hypothese dat *čto*-zinnen in een naamvalspositie moeten staan.

In hoofdstuk 5 vat ik de resultaten van het onderzoek samen en bespreek de bredere theoretische en cross-linguïstische implicaties van het resultaat dat *čto*-zinnen een DP-schil hebben en in een naamvalspositie staan.

Onder andere ga ik in op het feit dat de distributionele beperkingen op complementszinnen in het Russisch zoals besproken in de hoofdstukken 3 en 4 niet voorkomen in talen als het Engels en het Nederlands. Dit lijkt verband te houden met een verschil in de structuur van het complementeerdersysteem in vergelijking met het Russisch. Voor een volledig begrip is verdere onderzoek naar de principes van naamvalstoekenning in deze talen nodig. Tenslotte bespreek ik de status van de grammaticaliteitsoordelen over de waargenomen contrasten en mogelijke verklaringen voor hun niet altijd absolute karakter en voor de variatie tussen sprekers.

Curriculum Vitae

Mikhail Knyazev was born on the 23rd of November 1987 in St. Petersburg, Russia (Leningrad, USSR at the time). In 2004, he went to study linguistics at St. Petersburg State University. In 2009, he graduated from the Department of General Linguistics with an MA degree (cum laude), majoring in general linguistics.

In 2009, Mikhail Knyazev started his PhD research at the Department of General Linguistics. In 2010, he enrolled in the joint PhD program organized by Utrecht institute of Linguistics OTS and St. Petersburg State University. This dissertation is the result of the work he carried out as part of this program.