Irina Burukina
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Mandative verbs and deontic modals in Russian: between obligatory control and overt embedded subjects

Abstract

The paper presents and examines a previously undescribed puzzle concerning the syntactic distribution of Russian mandative verbs (*velet'* 'order', *razrešit'* 'allow') and non-verbal deontic modals: these predicates exhibit dual behavior as they embed non-finite clauses with either implicit obligatorily controlled (PRO) or overt referential (DP) subjects. The ambiguity holds for the same native speakers and no detectable difference in terms of the Tense – Agreement characteristics or the structural size can be found between infinitival constituents with PRO / DP subjects. To account for this phenomenon, I propose, first, to analyze mandative verbs as lexical realizations of a verb of communication that embeds a silent deontic modal head; the latter, in turn, takes a clausal proposition as its complement. Second, I demonstrate that the reported DP / PRO alternation is described by the following generalization: An embedded overt referential subject is allowed only when there is no potential dative DP controller available within a higher clause. In the spirit of the traditional Case theory, I argue that an embedded lexical subject must be Case licensed, and, since non-finite clauses are Case deficient, licensing may only be done by a higher (matrix) functional head, namely $Appl^0$, which normally introduces an obligation Holder; thus, matrix Holders and lexical embedded subjects end up competing to receive Case from the same functional head. Furthermore, I show that, as no subject-to-object raising happens, long-distance Case assignment proceeds over a CP boundary.

1 Introduction

Starting from the first papers on non-finite complementation, the difference between obligatory control sentences with an embedded PRO subject, such as *Mary$_i$ decided [PRO$_i$ to write a report],* and sentences with an overt lexical subject generated in the embedded clause, such as *Mary$_i$ seems [t$_i$ to have written the report],* has been noticed (Chomsky 1965; Postal 1974; Rosenbaum 1974, and Rooryck 1992, to name a few). Many of the works on the topic aim to determine the contexts where an obligatory controlled PRO and overt embedded subjects are available, often arguing for the complementary distribution of the two kinds of items;[1] see multiple classifications for control

1 An alternative for the PRO-based approach to control is the movement-based analysis developed by Hornstein (1999, 2001, 2003), Boeckx and Hornstein (2003), and Boeckx (2004). The common challenges for the MTC have been summarized by Landau (2007); see also Kiss (2004), Runner (2006), Bobaljik and Landau (2009), and Wood (2012), i.a., for detailed discussions. The problems include overgeneration and incompatibility with the actual empirical data; undergeneration of split and partial control; introduction of 'sideward movement' to account for obligatory control in adjuncts; violation of the chain condition (Chomsky 1995); obligatory reinterpretation of the

vs. raising predicates in Davies and Dubinsky (2004), Wurmbrand (2001), Jackendoff and Culicover (2006), i.a.

The present paper examines Russian mandative verbs[2] (*velet'* 'order', *prikazat'* 'order', *razrešit'* 'permit', etc.) and non-verbal deontic modals (*možno* 'allowed', *neobxodimo* 'necessary', etc.) that normally embed a dative DP interpreted as a holder of the obligation / permission (henceforth, Holder) and a clause. Traditionally, mandative verbs are listed among object control predicates; see Schein (1982), Greenberg (1987), Franks and Hornstein (1992), Babby (1998), Landau (2008), Bailyn (2012), to name a few, for discussions of non-finite complementation in Russian. However, the more recent papers by Barrie and Pittman (2010) and Minor (2013) propose that mandatives should be re-analyzed as subject-to-object raising verbs. The novel puzzle in the center of this paper is that Russian mandatives and deontic modals exhibit dual behavior: unlike ordinary object control verbs, for instance, implicatives *zastavit'* 'force' and *vynudit'* 'compel',[3] the predicates under discussion can embed non-finite clauses both with covert (controlled, (1a,b)) and overt (referential, (1c,d)) subjects, thus allowing seemingly free DP / PRO alternation.

(1) a. Maša velela **Anne$_i$** [**PRO$_{i+}$** sdelat' vmeste zadanie].
Maša.NOM ordered Anna.DAT do.INF together task.ACC
'Maša ordered Anna to do the task together.'

b. **Anne$_i$** nado [**PRO$_{i+}$** sdelat' vmeste zadanie].
Anna.DAT necessary do.INF together task.ACC
'For Anna it is necessary to do the task together.'

c. Maša velela [**projektu** zakončit'sja k srede].
Maša.NOM ordered project.DAT complete.INF by Wednesday

mechanism of theta-role assignment.

2 Wurmbrand (2001), Landau (2013), i.a., use the term *desiderative* to refer to the predicates that express commands and orders, while Barrie and Pittman (2010) prefer the term *mandative*, following Quirk and Greenbaum (1973), i.a. Other common terms to refer to this group of predicates include *speech-act predicates* (Minor 2013) and *directive verbs* (see, for example, Comrie (1984)). Throughout this paper, I use the term *mandative*, following the discussion began by Barrie and Pittman (2010), to refer to verbs of order or prohibition as well as verbs equivalent the English predicates *permit* and *charge*.

3 The term *implicative* can be traced back to Karttunen (1971); unlike mandatives, these predicates do not involve deontic modality and should rather be compared to causatives. The distinctive property of implicatives is that if a sentence with a matrix implicative is true the embedded proposition must also be true (i).

(i) a. John forced Bill to wash the dishes. (#but Bill didn't)
b. John made Bill wash the dishes. (#but Bill didn't)
c. John ordered Bill to wash the dishes. (but Bill didn't)

As demonstrated in this section, implicatives do not pass raising diagnostics and should be considered control predicates; the structure of such constructions is discussed in more detail in Section 5, where I follow Landau (2015) in analyzing an embedded non-finite clause as predicated of a controller.

'Maša ordered for the project to be complete by Wednesday.'

d. Nado [**projektu** zakončit'sja k srede].
necessary project.DAT complete.INF by Wednesday
'It is necessary for the project to be complete by Wednesday.'

In (1a) and (1b) the DP_{DAT} 'Anna' denotes a matrix Holder, i.e. the person responsible for the embedded situation, controlling the embedded PRO subject; despite the fact that the two items are partially coreferent, they are not identical, as suggested by the presence of the *vmeste* 'together' modifier, which requires a semantically plural subject. In contrast, in (1c) and (1d) the DP_{DAT} 'project' refers to a non-sentient entity that cannot be interpreted as a Holder; it is merged as the subject of the non-finite clause and receives its thematic role from the embedded predicate; furthermore, I will show that it does not raise into a matrix A position staying relatively low within the embedded clause.

Focusing on the DP / PRO alternation, I will demonstrate that, on the one hand, it does not correlate with the structural size or the Tense – Agr characteristics of the embedded non-finite clause (see many analyses along these lines in Landau (2004), Bondaruk (2006), Pires (2007), i.a.). On the other hand, it is not entirely 'free' either, since it turns out that, in Russian, the availability of an overt embedded subject depends on the presence of an overt matrix Holder, as the two cannot co-occur (2) (compare this, for example, to the arguably free DP / PRO alternation in Dravidian languages reported by Sundaresan and McFadden (2010)).

(2) a. *Maša velela **Anne** [**projektu** zakončit'sja k srede].
Maša.NOM ordered Anna.DAT project.DAT complete.INF by Wednesday
Intended: 'Maša ordered Anna for the project to be complete by Wednesday.'

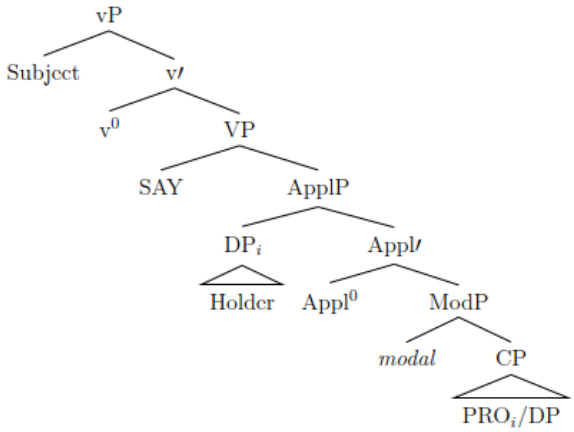
b. ***Anne** nado [**projektu** zakončit'sja k srede].
Anna.DAT necessary project.DAT complete.INF by Wednesday
Intended: 'For Anna it is necessary for the project to be complete by Wednesday.'

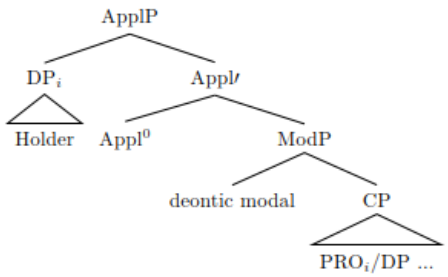
Thus, the two questions arise: (i) What is the structure of sentences with mandatives and modals and why their distribution is so similar? and (ii) How to regulate the DP/PRO alternation? The existing approaches to DP/PRO distribution that classify the predicates under discussion as either

control or raising / ECM[4] cannot fully account for the data; instead, I develop a novel analysis that captures all the relevant properties of the constructions under discussion.

First, I propose that mandative verbs are overt realizations of a verb of communication that embeds a silent deontic modal; the latter, in turn, belongs to the class of ordinary modal predicates that select a propositional clause as an argument.[5] Unlike in those approaches that place a modal component within the infinitival clause itself (Bhatt 1999; Pesetsky and Torrego 2001; Wurmbrand 2014), in this case the modal is a separate lexical head, although it remains covert. The ultimate structures are given in (3), where either PRO or a referential DP can occupy the structural subject position of the embedded non-finite clause.

(3) a. *A sentence with a matrix mandative* b. *A sentence with a matrix deontic modal*





Second, I propose to regulate the DP / PRO alternation in terms of cross-clausal Case assignment, inspired by a combination of Chomsky's (1981) classical Case licensing theory and the more recent claim that DPs and PRO are not inherently in complementary distribution, put forward by McFadden (2004), i.a.

Although DPs and PRO, in principle, can be merged within the same syntactic environment, an overt DP subject of an embedded clause must be Case-licensed by a functional head. In sentences with a matrix mandative / deontic modal predicate this can be done by a matrix applicative head that introduces and (normally) licenses a Holder. The (simplified) structural representations are provided in (4a) and (4b): if the matrix Holder is an overt DP, it must check

4 In this paper, I am using the term 'ECM' rather tentatively. As was initially proposed by Chomsky (1981), in cases similar to *Mary expected [John to win]*, a matrix verb has an exceptional inherent ability to assign Case to the embedded subject. At this point, it is not yet clear if in the Russian sentences with an overt referential subject there is anything exceptional in Case assignment, even though I will eventually propose that an embedded DP subject needs to be licensed by a matrix functional head.

5 Adopting the distributive morphology framework, I assume that lexical choice happens post-syntactically, presumably motivated by movement of the deontic modal head to the 'communication' head.

Case with Appl^0 (4a); if, however, the Holder is implicit, a Case-less φP (following Landau (2010)), the overt embedded subject can get licensed instead (4b).

(4) a.

$[_{\text{ApplP}}\ [_{\text{DP}}\text{Holder}\ ]_i\ [_{\text{Appl'}}\text{Appl}\ [_{\text{ModP}}\text{modal}\ [_{\text{CP}}\text{PRO}_i\ \text{infinitive}\ ]]]]$

DAT

b.

$[_{\text{ApplP}}\ [_{\varphi\text{P}}\text{Holder}\ ]\ [_{\text{Appl'}}\ \text{Appl}\ [_{\text{ModP}}\text{modal}\ [_{\text{CP}}\text{DP}\ \text{infinitive}\ ]]]]$

DAT

The Russian data complement the known cases of cross-clausal A-dependencies (see Wurmbrand (2018) for an overview of the problem), adding Appl^0 to the set of functional heads that allow long-distance Case licensing and providing an example of a genuinely long-distance Case assignment within a non-finite clause.

A few words should be said about the assumptions at the core of this paper. First, I adopt the general PRO-based approach to control, following the extensive discussion in Landau (2007) and Bobaljik and Landau (2009). Second, I follow the minimalist account of control and assume that PRO is licensed by the special 'Null Case' available in non-finite clauses, while DPs require a non-null Case. As for a particular mechanism for controlling PRO, the two well-known frameworks are binding approaches (Manzini 1983; Bouchard 1982; Koster 1984; Lebeaux 1984; Sag and Pollard 1991; Kayne 1991; Wyngaerd 1994; Rooryck 2000, i.a.) and the Agree approach (Landau 2004, 2008, and elsewhere). Within this paper, I believe that both analyses are consistent with the data and I do not have any particular arguments for or against either of them.

The rest of the paper is structured as follows. Section 2 describes the general properties of sentences with a matrix mandative verb / a deontic modal in Russian. Section 3 shows that mandatives and deontic modals are ambiguous in their behavior allowing embedded non-finite clauses with overt referential / PRO subjects. Section 4 presents the decomposition analysis, highlighting the similarities in the behavior of mandative verbs and deontic modals and providing additional support for the structural presence of a silent deontic modal head in constructions with a matrix mandative verb. Section 5 focuses on the reported DP / PRO alternation in embedded non-finite clauses and argues that it can be regulated in terms of Case-licensing. Section 6 concludes the paper.

2 Mandatives and deontic modals: general properties

Let us start by describing the syntactic distribution of Russian mandative verbs in comparison to that of deontic modals. Mandative verbs include the following: *razrešit'* 'allow', *pozvolit'* 'allow', *zapretit'* 'prohibit', *prikazat'* 'order', *velet'* 'order', *predpisat'* 'obligate', *poručit'* 'charge', *skazat'* 'tell', and their derived forms.[6] Deontic modals are represented by adjectival predicates such as *nužno* 'necessary', *neobxodimo* 'necessary', and the phi-invariant forms without adjectival counterparts *možno* 'allowed' and *nel'zja* 'not allowed'.[7]

Mandative verbs and deontic modals usually co-occur with a dative DP that often refers to the obligation / permission holder (Holder) and an embedded constituent denoting an event that should or should not happen (5). As illustrated here, the dative DP can be implicit;[8] as further shown in (5b), deontic modals require a copula (silent in the present tense), which, in the case of an embedded clause, always appears in the default 3/neuter.sg form.

(5) a. Vrač velel / zapretil Maše / *ec* jest' ovošči.
doctor.NOM ordered prohibited Maša.DAT eat.INF vegetables
'The doctor ordered / prohibited Maša / someone to eat vegetables.'

6 The paper does not consider predicates that also co-occur with a dative DP but, unlike mandative verbs, support control shift, as they require a detailed examination and deserve a separate discussion. The best known example of these is *obeščat'* 'promise', which, on a par with its English translation equivalent, allow either the matrix subject or the matrix object to be coreferent with the understood subject of the embedded clause (i).

(i) a. Maša$_i$ obeščala Pete$_k$ [*ec*$_{i/k}$ sdat' ekzamen].
Maša.NOM promised Petja.DAT pass.INF exam.ACC
'Maša promised Petja that she / he would pass the exam.'
b. Mary$_i$ promised Peter$_k$ [*ec*$_{i/*k}$ to leave].
c. Mary$_i$ promised Peter$_k$ [*ec*$_{*i/k}$ to be allowed to leave].

The peculiar properties of *promise* have been discussed by Farkas (1988), Larson (1991), Farrell (1993), to name a few; see an overview of the problem in Landau (2013).

7 Adjectival modals are morphologically identical to the neuter.sg forms of the semantically equivalent short adjectives and have similar syntactic distribution. Unlike long adjectives, short adjectives can only be used as primary predicates and cannot be marked for case (i).

(i) a. Soobščenije bylo nužnoe / nužno.
message.N.SG.NOM was.N.SG necessary.LONG.N.SG.NOM necessary.SHORT.N.SG
'The message was necessary.'
b. Prišlo nužnoe / *nužno soobščenije.
arrived necessary.LONG.N.SG.NOM necessary.SHORT.N.SG message.N.SG.NOM
'A necessary message arrived.'

I follow Bonch-Osmolovskaja (2003) and Say (2013) in assuming that if deontic modals do not exhibit any semantic or morphosyntactic differences compared to the corresponding short adjectives it is reasonable to analyze the two groups together. Note that not all deontic modals have corresponding adjectival counterparts; for instance, for *nado* 'necessary' there is no adjective **nadyj*, while for *nužno* 'necessary' there is the adjective *nužnyj*. This question remains to be answered by future research.

8 At this point, I denote silent Holders as *ec*. I follow Landau (2010), i.a., in assuming that they are structurally present weak implicit arguments, phi-Ps; for argumentation, see Section 5 of this paper. As the research mainly focuses on constructions with overt dative DPs, I refer the reader to Bouchard (1982), Cinque (1988), Huang (1989), Sag and Pollard (1991), Wyngaerd (1994), Jackendoff and Culicover (2003), Landau (2010, 2013), for a discussion of implicit Addressees, Holders and other kind of silent arguments.

b. Maše / *ec* bylo nužno / nel'zja jest' ovošči.
Maša.DAT was.N.SG necessary not.allowed eat.INF vegetables
'For Maša / someone it was necessary / not allowed to eat vegetables.'

Aside from a non-finite clause, mandative verbs and deontic modals can also embed finite subjunctive clauses (6).[9]

(6) a. Maša velela Pete, čtoby Anna ostalas'.
Maša.NOM ordered Petja.DAT so that Anna.NOM stay.SUBJ
'Mary ordered Petja that Anna should stay.'

b. Pete bylo neobxodimo / možno, čtoby Anna ostalas'.
Pete.DAT was.N.SG necessary allowed so that Anna.NOM stay.SUBJ
'For Petja it was necessary / allowed that Anna would stay.'

In sentences with a matrix mandative verb / a deontic modal and an embedded non-finite clause, when an overt dative DP is present, it must be coreferent with the understood subject of the infinitival construction; this is demonstrated in (7) and (8) where the relation between the DP_{DAT} and the subject complies with the c-command and locality requirements and cannot be established solely from a pragmatic perspective. Furthermore, as illustrated in (7b) and (8b), the embedded subject obligatorily behaves as a bound variable under ellipsis, which suggests that it is not a *pro*.

(7) a. $Ivan_k$ skazal, čto Petja velel [druzjam $Maši_j$]$_i$ pojti $odnim_i$ / *$odnoj_j$/ *$odnomu_k$.
Ivan.NOM said that Petja.NOM ordered friends.DAT Maša.GEN go.INF alone.PL alone.F alone.M
'Ivan said that Petja had ordered Maša's friends to go alone.'
← *logophoric control and non-c-command control fail*

b. Učitel' velel Maše ujti, i direktor Ivanu tože.
teacher.NOM ordered Maša.DAT leave.INF and director.NOM Ivan.DAT too
'The teacher ordered Maša to leave and the director ordered Ivan to leave.'
← *sloppy (bound variable) reading only, no strict reading*

(8) a. $Ivan_k$ skazal, čto [druzjam $Maši_j$]$_i$ nužno / možno pojti $odnim_i$ / *$odnoj_i$ / *$odnomu_k$.

9 This property distinguishes Russian deontic modals from modals found, for instance, in many Germanic languages that are arguably functional heads in monoclausal constructions (Wurmbrand 1999, 2001).

Ivan.NOM said that friends.DAT Maša.GEN necessary allowed go.INF alone.PL alone.F alone.M

'Ivan said that for Maša's friends it is necessary / allowed to go alone.'

b. Maše nužno / možno ujti, i Ivanu tože.

Maša.DAT necessary allowed leave.INF and Ivan.DAT too

'For Maša it is necessary / allowed to leave and for Ivan it is necessary / allowed to leave, too.'

The general properties of mandative verbs and deontic modals are summarized in Table 1.

Table 1: General properties of sentences with a matrix mandative / deontic modal predicate.

	DP_{DAT}	Implicit Holder possible	Embedded	DP_{DAT} / embedded Subj coreference
Mandative verbs	Obligation Holder	+	Non-finite / finite subjunctive clause	Obligatory
Deontic modals	Obligation Holder	+	Non-finite / finite subjunctive clause	Obligatory

The following two options are potentially available to analyze the relation between the overt dative DP and the understood embedded subject in sentences with a matrix mandative / deontic modal predicate and a non-finite clause. First, the two can be syntactically distinct items, with the matrix DP_{DAT} controlling the embedded silent subject (matching the examples in (1a,b)). Second, the dative DP that we see on the surface can be the embedded subject itself, either moved into a matrix position (subject-to-object raising) or staying within the embedded constituent (ECM) (matching the examples in (1c,d)).

In the next sections I will demonstrate that sentences with mandatives and deontic modals pass the tests for both overt embedded subject and obligatory control diagnostics; thus, the subject position of an embedded non-finite clause can be occupied either by a referential DP or PRO.

3 Obligatory control vs. overt embedded subjects

3.1 The dative DP as a matrix Holder

There are contexts in which the dative DP is unambiguously interpreted as a Holder distinct from the embedded subject. First, recall that Russian mandative verbs can embed not only a non-finite clause but also a finite subjunctive clause or a DP referring to the situation that should or should not

happen; importantly, in these cases, the embedded subject (if present) and the dative DP do not have to be coreferent at all (9).[10]

(9) a. Vrač velel medsestre, čtoby Maša jela ovošči.
doctor.NOM ordered nurse.DAT so that Maša.NOM eat.SUBJ vegetables
'The doctor told the nurse that Maša eat vegetables.'

b. Medsestre nel'zja, čtoby Maša jela ovošči.
nurse.DAT not.allowed so that Maša.NOM eat.SUBJ vegetables
'For the nurse it is not allowed that Maša eat vegetables.'

Second, partial coreference is allowed between the dative DP and the embedded subject in sentences with an embedded non-finite clause; this can be seen in examples with a singular dative DP and an embedded item that requires plurality of the embedded subject, such as collective predicates derived using the *raz-sja* affixes (*razojtis'* 'disperse', *razbežat'sja* 'scatter', *razrugat'sja* 'quarrel, break up') and subject-oriented *together*-type modifiers. Thus, (10) and (11) are judged as acceptable even though the embedded predicate *razojtis'* and the modifier *vmeste* 'together' require a semantically plural subject while the dative DPs in these sentences are semantically singular.

(10) a. Ivan velel Petru razojtis' ne pozže šesti.
Ivan.NOM ordered Petja.DAT disperse.INF NEG later six
'Ivan ordered Petja to disperse by six.'

b. Pete nužno / nado razojtis' ne pozže šesti.
Petja.DAT necessary / necessary disperse.INF NEG later six
'For Petja it is necessary to disperse by six.'

(11) a. Marina velela Anne pojti vmeste v kino.
Marina.NOM ordered Anna.DAT go.INF together into cinema
'Marina ordered Anna to go to the cinema together.'

b. Marina znala, čto Anne nado / možno pojti vmeste v kino.
Marina.NOM knew that Anna.DAT necessary / allowed go.INF together into cinema
'Marina knew that for Anna it is necessary / allowed to go to the cinema together.'

10 In sentences similar to (9), a matrix dative DP is still interpreted as an obligation holder and not merely as a goal of communication. Thus, 'the nurse' is held at least partially responsible for Maša's behavior; if we try to substitute this DP with another one referring to a person unrelated to Maša, the sentence will make no sense.

I follow Wurmbrand (2004), i.a., in assuming that availability of partial coreference requires the presence of PRO and supports a control analysis for sentences with mandative verbs / deontic modal predicatives.

3.2 The dative DP as the embedded subject

The DP_{DAT} in the sentences under consideration can also be base-generated within the lower clause receiving its thematic role from the embedded predicate; thus, it can be completely independent from the matrix verb). Evidence for this is found in the results for the idiom chunk, embedded passivization and inanimateness tests.[11]

First, embedded under a mandative / deontic modal predicate, the idiom *čërnaja koška probežala meždu nimi*, literally translated as 'a black cat ran between them', can still retain its idiomatic interpretation (12a, 12b), which is possible only if 'a black cat' DP is base-generated as a part of the embedded collocation.[12] In contrast, an idiomatic reading is not available in sentences with ordinary object control verbs, such as implicatives *zastavit'* 'force', *vynudit'* 'compel' (12c), which suggests that, in this case, 'a black cat' is thematically unrelated to the embedded predicate.

(12) a. Ja ne velel čërnoj koške probegat' meždu nimi.
I NEG ordered black cat.DAT run.INF between them
Literally: 'I did not order the black cat to run between them.'
Idiomatic reading available: 'I did not order / force them to quarrel.'

b. Čërnoj koške bylo nel'zja probegat' meždu nimi.
black cat.DAT was.N.SG not.allowed run.INF between them
Literally: 'For a black cat it is not allowed to run between them.'
Idiomatic reading available: 'It is not allowed for them to quarrel.'

c. Ja vynudil čërnuju košku probežat' meždu nimi.
I forced black cat.ACC run.INF between them
Literally: 'I forced a black cat to run between them.'
Idiomatic reading not available: 'I forced them to quarrel.'

11 Another commonly used diagnostic – insertion of an expletive pronoun – cannot be applied, since, in Russian, there are no overt expletive pronouns. See Franks (1990), Perlmutter and Moore (2002), i.a., for a discussion of null expletives in Slavic languages.

12 Another idiom that can be used for this test is *jabloko padaet nedaleko ot jabloni* 'like father, like son', literally translated as 'an apple falls not far from an apple tree' (i).

(i) V takoj semje nel'zja jabloku padat' nedaleko ot jabloni.
in such family not.allowed apple.DAT fall.INF close from apple tree
Idiomatic reading available: 'In such a family the children should not be like their parents.'

Second, sentences with a matrix mandative verb / a deontic modal and an embedded passive construction can get the same interpretation as parallel sentences with an embedded active construction; the test relies on the fact that passivization of a predicate does not result in a truth-conditional difference between the active and the passive constructions. Thus, in the examples in (13a) and (13b) / (13c) and (13d) the dative DPs can refer to volitional obligation holders; since the obligation holders are thematically related to the matrix predicate, this yields two distinct readings for these sentences. However, it is also possible to interpret the sentences in these pairs as equivalent, as the dative DPs can be analyzed as embedded participants receiving their θ-roles (the same in passive / active configurations) from the embedded predicate, while the matrix obligation holders remain implicit.

(13) a. Direktor prikazal mal'čiku byt' ubitym Voldemortom.
director.NOM ordered boy.DAT be.INF kill.PTCP Voldemort.INS
(i) 'The director ordered the boy that he should be killed by Voldemort.' (≠ b)
(ii) 'The director ordered that the boy should be killed by Voldemort.' (= b)

b. Direktor prikazal Voldemortu ubit' mal'čika.
director.NOM ordered Voldemort.DAT kill.INF boy.ACC
(i) 'The director ordered Voldemort that he should kill the boy.' (≠ a)
(ii) 'The director ordered that Voldemort should kill the boy.' (= a)

c. Mal'čiku neobxodimo / nado byt' ubitym Voldemortom.
boy.DAT necessary necessary be.INF kill.PTCP Voldemort.INS
(i) 'For the boy it is necessary that he be killed by Voldemort.' (≠ d)
(ii) 'It is necessary that the boy be killed by Voldemort.' (= d)

d. Voldemortu neobxodimo / nado ubit' mal'čika.
Voldemort.DAT necessary necessary kill.INF boy.ACC
(i) 'For Voldemort it is necessary that he kill the boy.' (≠ c)
(ii) 'It is necessary that Voldemort kill the boy.' (= c)

As further illustrated in (14), semantic equivalency under voice transformations is not allowed in case of an ordinary object control verb.

(14) a. Direktor zastavil mal'čika byt' ubitym Voldemortom.
director.NOM forced boy.ACC be.INF kill.PTCP Voldemort.INS
'The director forced the boy to be killed by Voldemort.' (≠ b)

b. Direktor zastavil Voldemorta ubit' mal'čika.
director.NOM forced Voldemort.ACC kill.INF boy.ACC
'The director forced Voldemort to kill the boy.' (≠ a)

Finally and most importantly, a dative DP co-occurring with a matrix mandative / deontic modal predicate can refer to a non-sentient non-volitional object that cannot be interpreted as a matrix Holder (15), hence must be the embedded subject itself.

(15) a. Direktor razrešil večerinke prodolžat'sja do polunoči.
director.NOM permitted party.DAT continue.INF until midnight
'The director permitted that the party continue until midnight.'

b. Nado stroitel'stvu zakončit'sja k martu.
necessary construction.DAT complete.INF by March
'It is necessary for the construction to be complete by March.'

Again, as shown in (16), this property distinguishes the predicates under discussion from ordinary object control verbs.

(16) *Direktor zastavil večerinku prodolžat'sja do polunoči.
director.NOM forced party.ACC continue.INF until midnight
Intended: 'The director forced the party to continue until midnight.'

The results for these three diagnostics show that the dative DP can be base-generated as the subject of an embedded clause, being assigned a θ-role by the embedded predicate.

3.3 Overt embedded subjects vs. controlled PRO

The syntactic properties of constructions with a matrix mandative / deontic modal predicate with respect to the overt embedded subject tests and the control diagnostics are summarized in Table 2, compared to the properties of ordinary control verbs (implicative predicates are used as an example).

Table 2: Overt embedded subjects vs. control diagnostics.

	DP	Embedded	DP / embedded S coreference	Overt embedded S	Obligatory control
Mandative verbs	DP_{DAT}	Non-finite, finite subjunctive	Obligatory	+	+
Deontic modals	DP_{DAT}	Non-finite, finite subjunctive	Obligatory	+	+

Implicative verbs	DP_{ACC}	Non-finite	Obligatory	–	+

The data bring us to the conclusion that, while implicative verbs support only the obligatory control configuration, mandative verbs and deontic modals pattern together and embed non-finite clauses with either controlled PRO or a lexical DP subject. The dual behavior cannot be fully accounted for by the traditional control (Franks and Hornstein 1992; Babby 1998; Landau 2013, i.a.) or more recent raising (Barrie and Pittman 2010; Minor 2013) analyses.

For instance, Barrie and Pittman (2010) argue that in English sentences with mandative verbs like *order* and *permit* **always** involve subject-to-object raising,[13] although they do not support this claim with the results for movement diagnostics. However, such an approach would be too restrictive for Russian as it would leave aside sentences with an overt matrix Holder and partial control. Minor (2013) focuses on a similar class of verbs in Russian, and argues that overt DPs can occupy the embedded subject position in a limited number of sentences with a matrix mandative predicate (a speech act verb, in his terms) and an embedded non-finite clause. He further claims that, in such cases, the DP does not pass the idiom chunk and embedded passivization tests and is obligatorily assigned two thematic roles, related simultaneously to the matrix and to the embedded predicates. As has been demonstrated in this section, the DP / PRO alternation is found in a much larger number of contexts than reported by Minor.

In what follows I will consider the DP / PRO alternation in detail and account for it by an analysis in terms of Case licensing. Before that, however, it is necessary to present the general structure of sentences with mandatives and deontic modals. A question that I will focus on is the following: considering various syntactic properties of sentences with a matrix mandative / deontic modal predicate, the syntactic distribution of these two classes is almost identical. To the best of my knowledge, this fact has not been previously addressed in the literature, however, it is straightforwardly accounted for by the syntactic structure developed in this paper.

13 Barrie and Pittman (2010) support their claim with the results for the expletive (ia), idiom chunk (ib), and embedded passivization (ic) tests.

(i) a. Ivan ordered/commanded/permitted there to be fruit available at the reception.
b. Ivan ordered/permitted/commanded tabs to be kept on Kenji.
c. The chief medical officer ordered an ophthalmologist to examine the patient.
= The chief medical officer ordered the patient to be examined by an ophthalmologist.

4 The structure: verbs of communication embedding modals

4.1 Outline of the analysis

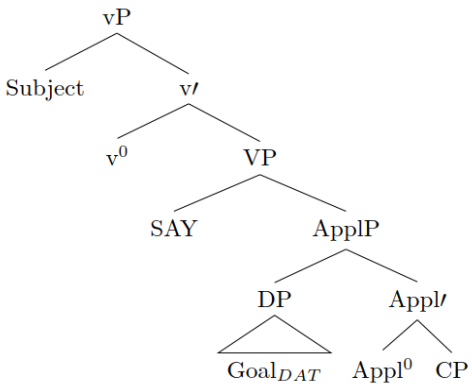
To explain the distributional similarity of mandative verbs and deontic modals, I propose a novel analysis in terms of structural decomposition. I consider mandative verbs to be ditransitive verbs of communication (verbs of information transfer): an order or a permission, denoted by an embedded proposition, is transmitted to an obligation holder / addressee, similar to factual information (17).

(17) a. Maša velela Anne, čtoby ona pomyla posudu.
Maša.NOM ordered Anna.DAT so that she.NOM wash.SUBJ dishes
'Maša ordered Anna to wash the dishes.'

b. Maša skazala Anne, čto Vanja pomyl posudu.
Maša.NOM said Anna.DAT that Ivan.NOM washed dishes
'Maša said to Anna, that Ivan had washed the dishes.'

Verbs of communication are, by their nature, ditransitive predicates, for which I adopt a structural representation in line with Pylkkänen's (2008) low applicative approach (see Dyakonova (2005), Boneh and Nash (2017) for applicative analyses).[14] The structure for these predicates is schematized in (18), where the matrix verb of communication (denoted here as SAY) takes as its complement an applicative phrase with a Goal of communication as an applied object.

(18)



14 An alternative approach to ditransitive predicates is the Small Clause analysis (Hale and Keyser 2002; Harley 2003; Den Dikken 2006, i.a.). The dative Addressee is considered a PP predicate with a silent P head, while the transferred proposition is generated as the small clause subject; in case of verbs that embed a non-finite clause, the predication is reverse so that a dative Addressee could control the embedded subject (i).

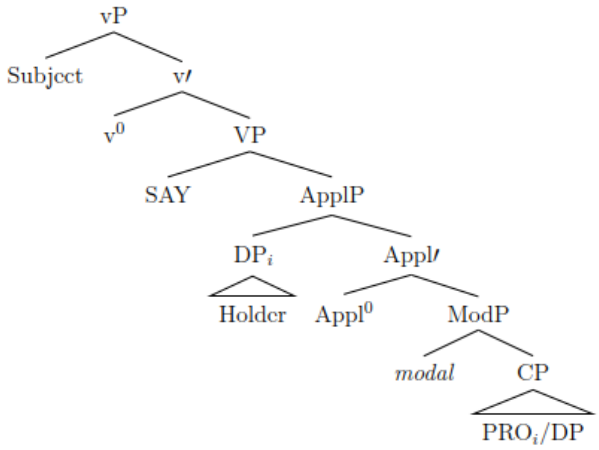
(i) [$_{vP}$ Subject [$_{v'}$ v^0 [$_{VP}$ SAY [$_{SC}$ [$_{PP}$ P^0 [$_{DP}$ Goal$_{DAT}$]][$_{R'}$ R^0 [$_{CP}$ …]]]]]]

As for now, I refrain from entering into a detailed discussion of verbs of communication in Russian in general, and I consider both analyses viable. For the sake of simplicity, in this paper I adopt an applicative analysis and Pylkkänen's basic semantics and denote the functional head that relates an Addressee / Holder and an embedded clause as Appl^0.

Under the assumption that mandative verbs belong to the class of communication verbs, the structure in (18) accommodates cases of an embedded finite subjunctive / non-finite clause together with a matrix DP_{DAT}. However, the following three questions remain to be answered: (i) What could explain the difference between ordinary verbs of communication and mandative predicates? In other words, what makes us interpret Goals as (obligation) Holders? (ii) Where does the striking similarity between the distributional properties of mandatives and deontic modals stem from? and (iii) How should sentences without an overt Holder and with an embedded non-finite clause with a lexical subject be accommodated?

To answer these questions, I propose that mandative verbs are overt realizations of a verb of communication that embeds a proposition 'enclosed' in a larger constituent headed by a structurally present although silent deontic modal head. I further argue that an applied object related by the applicative head to a saturated modal constituent (which, in turn, embeds a proposition) always gets interpreted as a Holder, both in root and embedded contexts, including those cases when a deontic modal phrase is embedded under a verb of communication. The ultimate structure is given in (19).

(19)



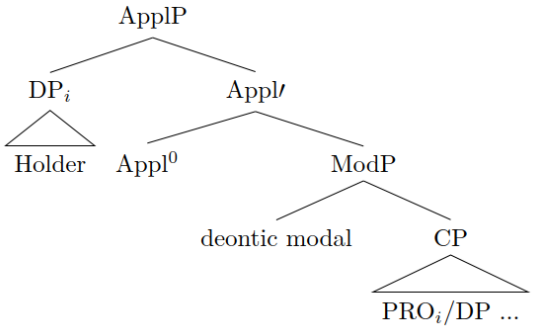
The silent modal in (19) belongs to the class of deontic modal predicates. The structure for the latter is given in (20).[15]

15 Given the structures for verbs of communication and deontic modals, one might expect that the combination of the two would result in a construction with simultaneously present referentially different Goal and Obligation Holder; however, sentences similar to (i) are unacceptable for all native speakers of Russian.

(i) *Vrač skazal Pete medsestreᵢ [PROᵢ dat' Maše lekarstvo].
doctor.NOM said Petja.DAT nurse.DAT give.INF Maša.DAT medicine.ACC
Intended: 'The doctor said to Petja that for the nurse it is necessary to give Maša the medicine.'
I assume that such examples are ruled out because of an independent restriction on recursion: an applicative phrase cannot be selected as the complement of another applicative head. The precise nature of this restriction remains to be further investigated (see Hoekstra 1984, Koopman 2014, Den Dikken and Dékány 2018, and De Clercq and Vanden Wyngaerd 2019, i.a.), however, its presence is further supported by ungrammaticality of examples with multiple Beneficiaries, External Possessors, and dative Goals (ii).

(ii) *Ivan Maše Petru razbil vazu.

(20)



I consider deontic modals to be lexical heads that require a single argument (a finite subjunctive clause or a non-finite clause with a DP / PRO subject) merged in the complement position; in this, I follow the discussion of adjectival predicates in Russian in Grashchenkov and Grashchenkova (2007), Geist (2010), Say (2013), Borik (2014), i.a. This assumption concurs with a cross-linguistic trend for modal adjectives to behave as unaccusative predicates (Cinque 1990, i.a.); see, for instance, Meltzer-Asscher's (2011) proposal to distinguish between syntactically unaccusative propositional adjectives (modals), which express judgments on the truth value of a proposition, and syntactically unergative 'eventive' adjectives (such as *sad, smart,* etc.).[16]

I further adopt Pylkkänen's (2008) analysis and assume that a Holder is introduced as an applied object, since it exhibits properties typical of (external) arguments. First, similarly to arguments and unlike adjuncts, Holders are visible to instrumental depictives (compare (21a) to (21b) where the depictive can be related only to one of the arguments – *Petja* or *Ivan* – but not to *Boris*).

(21) a. Pjanym$_i$Pete$_i$ nel'zja, čtoby Anna ostavalas'.
drunk.INS Petja.DAT not.allowed so that Anna.NOM stay.INF
'When Petja is drunk, it is not allowed for him for Anna to stay.'

b. Petja$_i$ udaril Ivana$_j$ iz-za Borisa$_k$ pjanym.
Petja.NOM hit Ivan.ACC because.of Boris.GEN drunk.INS
'When Petja was drunk, he hit Ivan because of Boris.'

Ivan.NOM Maša.DAT Petja.DAT broke vase.ACC
Intended: Ivan broke Petja's vase for Maša.'

To introduce both an Addressee and an obligation holder additional layers should be inserted between the two applicative phrases: for example, a modal part can be embedded within a finite clause (iii) or introduced as direct speech.

(iii) Vrač skazal Pete, čto medsestre nužno dat' Maše lekarstvo.
doctor.NOM said Petja.DAT that nurse.DAT necessary give.INF Maša.DAT medicine.ACC
'The doctor said to Petja that for the nurse it is necessary to give Maša the medicine.'

16 As suggested by Meltzer-Asscher (2011), a proposition must be merged in the complement position in order to appear in the scope of the modal operator (i.e. a propositional adjective) that introduces a set of possible worlds. The truth value of the proposition in these possible worlds is then related to the 'actual' world.

'When Ivan was drunk, Petja hit him because of Boris.'

Not available: 'When Boris was drunk, Petja hit Ivan because of him.'

Second, Holders can control into active gerundial constructions (22a), which is also characteristic of arguments (22b).[17]

(22) a. *ec*$_{i}$ uxodja iz doma, Pete$_{i}$ nel'zja, čtoby Anna ostavalas'.
leaving from house Petja.DAT not.allowed so that Anna.NOM stay.SUBJ
'When Petja leaves the house, it is not allowed for him for Anna to stay.'

b. *ec*$_{i/*k}$ uxodja iz doma, Petja$_{i}$ opazdyval iz-za Anny$_{k}$.
leaving from house Petja.DAT was.late because.of Anna.GEN
'When Petja leaves the house, he was late because of Anna.'

The proposed decomposition analysis captures the distributional similarities between mandative verbs and deontic modals. The next section provides additional support for decomposing constructions with mandative verbs.

4.2 Mandative verbs and deontic modals

At least two properties of sentences with a matrix mandative verb that might posit a problem under a different approach are straightforwardly accounted for by the decomposition analysis presented in this paper.

The first is the possibility of ambiguous interpretations of examples with a sentential negation. Let us take a look at mandative and modal predicates in general. The fact that universal 'must'-type predicates can scope above or below matrix negation has been widely discussed in the literature, including von Fintel and Iatridou (2007), Iatridou and Zeijlstra (2013), i.a.; in turn, existential predicates denoting permission typically scope below matrix negation and do not allow ambiguous interpretations (Iatridou and Zeijlstra 2013). The contrast is illustrated in (23) with the Russian modal predicates (*byt'*) *dolžen* 'must' (universal) and *moč'* 'can' (existential).

(23) a. Ivan ne dolžen delat' zadanie.
Ivan.NOM NEG must do.INF task.ACC

17 It might be suggested instead that Holders are merged as lower internal arguments in the Spec,ModP; for instance, a 'dyadic unaccusative' approach has been adopted by Baker (2017) for verbal predicates with (only) two absolutive arguments in Burushaski. Note, however, that Baker primarily adopts this structural representation to account for the peculiar Case assignment / agreement pattern, and offers little independent support, only mentioning that the subjects of all absolutive-absolutive verbs are nonagentive Experiencers / Possessors. As has been persuasively demonstrated by Pesetsky (1995) for several Indo-European languages, even among the predicates that assign Experiencer / other kinds of nonagentive thematic roles, genuinely dyadic unaccusative structures with two internal arguments are extremely rare; for instance, after examining a wide variety of experiencer predicates in English, he concludes that only a few should be analyzed as sharing such a structure: *appeal to, matter to, occur to.* With these considerations in mind, I keep to the high applicative analysis for constructions with a deontic modal.

(i) 'Ivan does not have to do the task.' NEG > MUST

(ii) 'Ivan must not do the task.' MUST > NEG

b. Ivan ne možet delat' zadanie.
Ivan.NOM NEG can do.INF task.ACC

(i) 'Ivan cannot do the task.' NEG > CAN

(ii) Not available: 'Ivan need not to do the task.' *CAN > NEG

Consider now (24), given with a literal translation, which involves the mandative verb of permission *razrešit'* 'permit'.

(24) Direktor ne razrešal večerinke prodolžat'sja do polunoči.
director.NOM NEG allowed party.DAT continue.INF till midnight
Literally: 'The director did not allow the party to continue till midnight.'

Assuming that *razrešit'* is a single lexical head belonging to the class of deontic modal predicates of possibility, which typically scope under the negation, we expect (24) to be interpreted as NEG > CAN: 'According to the director, it is not possible for the party to continue till midnight.' (that is, the director said to the party goers that they must go home earlier than midnight). This reading, indeed, is available. Furthermore, we expect the following CAN > NEG reading to be unavailable (since existential modals do not scope over negation): 'According to the director, it is possible for the party not to continue till midnight.' Again, the prediction is borne out, as (24) is not true in the situation when the director said to the party goers that they were free to choose whether to go home at midnight or earlier.

However, (24) has another interpretation unpredicted by the straightforward 'single lexical item' analysis. Imagine that the director, in fact, did not say anything to the party goers; that is, he did not prohibit or permit anything specific with regard to the party. In this case, (24) is true and receives the reading 'The director did not say that it is possible for the party to continue till midnight.' Crucially, CAN and NEG alone cannot represent the difference between this interpretation and the first one, and I argue that another scope bearing element should be introduced: *razrešit'* 'permit' must be split into the communication (SAY) and modal (CAN) components.

As schematized in (25), there are now three potential positions for the negation to be interpreted and only two of them are licit, since negation cannot be scope under than CAN.

(25) Direktor ne razrešal večerinke prodolžat'sja do polunoči.
director.NOM NEG allowed party.DAT continue.INF till midnight

Literally: ‘The director did not allow the party to continue till midnight.’

a. Not available: ‘According to the director, it is possible for the party not to continue till midnight.’ *SAY > CAN > NEG
b. Available: ‘According to the director, it is not possible for the party to continue till midnight.’ SAY > NEG > CAN
c. Available: ‘The director did not say that it is possible for the party to continue till midnight.’ NEG > SAY > CAN

Thus, unlike the ‘single lexical item’ analysis, the decomposition approach correctly predicts both (25b) and (25c) to be available and rules (25a) out.

The second piece of support for the decomposition analysis comes from the fact that predicates denoting information transfer can be ‘transformed’ into mandative verbs, at least in colloquial Russian. Consider verbs in (26a): they are interpreted as ordinary verbs of communication, require an embedded finite indicative clause and can optionally have an overt dative Goal. However, as illustrated in (26b) and (26c), they can also appear with a non-finite or a finite subjunctive embedded clause. In this case they get mandative (modal) interpretation, and a dative DP is interpreted as an obligation Holder.

(26) a. Petja skazal / napisal / šepnul Maše, čto Vanja ujdet.
Petja.NOM said wrote whispered Maša.DAT that Vanja.NOM leave.FUT
‘Petja said / wrote / whispered to Maša that Ivan would leave.’
b. Petja skazal / napisal / šepnul Maše ujti.
Petja.NOM said wrote whispered Maša.DAT leave.INF
‘Petja said / wrote / whispered Maša to leave.’
c. Petja skazal / napisal / šepnul Maše, čtoby ona ušla.
Petja.NOM said wrote whispered Maša.DAT so that she.NOM leave.SUBJ
‘Petja said / wrote / whispered to Maša that she should leave.’

The contrast between (26a) and (26b, 26c) might be explained by postulating two morphologically identical lexical entries for each of the verbs of information transfer. However, encoding modality in a structurally independent modal head eradicates the conceptually unattractive lexical duplication and, at the same time, helps to explain the distribution of indicative and subjunctive mood in the embedded clause. Under the proposed analysis there is always one lexical entry for a verb of communication which denotes a simple transfer of information usually encoded in an embedded

indicative clause. Only when the constituent referring to this piece of information contains a deontic modal a mandative interpretation appears and an embedded non-finite / finite subjunctive clause becomes available. The connection between deontic modality and subjunctive mood has been thoroughly studied for many Indo-European languages, including, for instance, Romance (Panzeri 2002, i.a.); a detailed discussion of this issue lies beyond the limits of the paper, and I refer the reader to Hooper (1975), Kratzer (1991), Portner (1997, 2003), Panzeri (2002), and Giannakidou (2009), to name a few, and references therein. The presented phenomenon does not prove that the modal head is present; however, the analysis proposed in this paper provides a simple explanation for the similarity between various sub-classes of predicates which otherwise might be harder to achieve.

The claim that silent lexical modals are attested in Russian has been independently made to account for the behavior of the so called root infinitives (Moore and Perlmutter 2000; Fleisher 2006; Jung 2009; Tsedryk 2017, i.a.). Although on the surface root infinitives look like non-finite clauses with a dative DP 'subject' (27), they should be analyzed as biclausal constructions with a silent matrix modal element, as was persuasively demonstrated by Fleisher (2006). The sentences are discussed in more details in Section 5.4.

(27) a. Maše Ø [zavtra rano vstavat'].
Maša.DAT necessary tomorrow early wake.up.INF
'Maša should wake up early tomorrow.'

b. Mašine Ø [zdes' ne projexat].
car.DAT possible here NEG pass.INF
'The car cannot pass here.'

Considering examples similar to those in (27), one might ask if sentences with a matrix mandative predicate embed a 'root infinitive type' direct speech. In other words, could (a) be parallel to (b) in (28)?

(28) a. Petja skazal Maše (*budet) rano vstavat'.
Petja.NOM said Maša.DAT be.FUT early wake.up.INF
'Petja said to Maša to wake up early.'

b. Petja skazal: "Maše (budet) rano vstavat'.'
Petja.NOM said Maša.DAT be.FUT early wake.up.INF
'Petja said: "Maša should wake up early"'.

At least three facts speak against analyzing (28a) as a structural equivalent to (28b). First, the prosody is different; in particular, direct speech is normally separated from the matrix part by a long pause. Second, in the case of direct speech, a finite clause is embedded, which is visible in past / future tense when an overt copula is present (compare (28a) and (298)). Third, direct speech requires indexical shift; thus, an embedded first person pronoun will be interpreted as referring to the logophoric center not the actual SPEAKER. Again, this is impossible in sentences similar to (28b).

5 The DP / PRO alternation

5.1 The existing approaches to DP/PRO alternation

As argued in this paper, in Russian, mandative verbs and deontic modals can embed non-finite clauses with covert / overt subjects. The Russian data thus complement the known cases of DP / PRO alternation in embedded non-finite clauses: see, for instance, Pires (2007) on English, McCloskey (1980, 1985), Chung and McCloskey (1987), Bondaruk (2006) on Irish, and Sundaresan and McFadden (2009) on Dravidian languages. Many of these analyses attempt to reconcile problematic data with the existing approaches to DP / PRO distribution as complementary: the most common way to account for the DP / PRO alternation is via anaphoric / non-anaphoric specification of non-finite clauses in terms of Tense – Agr features (following Landau's 2004 calculus of control); see, for instance, Pires (2007). Another potential way of analysis, proposed by Bondaruk (2006), i.a., is to keep to the Case licensing approach to DPs (stemming from Chomsky's (1981) original Case filter theory).

At the same time, several researchers embrace the idea that DPs and PRO can appear in the same syntactic environments and argue that the distribution of non-finite clauses with overt / covert subjects is regulated by external factors, such as, for instance, selectional properties of matrix predicates. Thus, Sundaresan and McFadden (2009) present and examine several cases of completely 'free' DP / PRO alternation in Dravidian languages and advocate the 'non licensing' approach to DPs and PRO.

What makes Russian different from all these cases is that the DP / PRO alternation does not correlate with the feature specification (Tense, Mood and agreement properties) of an embedded non-finite clause. First, no infinitive in Russian can be overtly marked for agreement and Tense; thus, unless we want to stipulate covert morphology in non-finite clauses with overt subjects, DP

and PRO subjects are available within the same environment. Second, as demonstrated in (29), the time reference of all non-finite constituents embedded under a predicative verb is determined in the same way, as relative future (note that in (29) 'tomorrow' cannot modify the matrix predicates in past tense).

(29) a. Petja velel Maše pojti zavtra vmeste v kino.
Petja.NOM ordered Maša.DAT go.INF tomorrow together in cinema
'Petja ordered Maša to go to the cinema together tomorrow.'

b. Marine bylo možno pojti zavtra vmeste v kino.
Marina.DAT was.N.SG allowed go.INF tomorrow together into cinema
'For Marina it was allowed to go on to the cinema together tomorrow.'

c. Direktor velel projektu byt' zakončennym zavtra.
director.NOM ordered project.DAT be.INF complete.PTCP tomorrow
'The director ordered for the project to be completed tomorrow.'

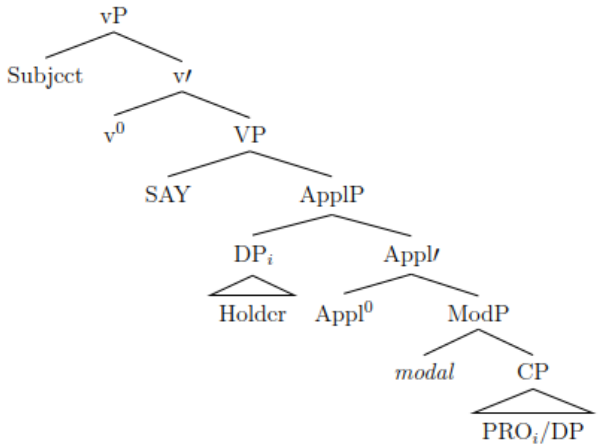
d. Bylo neobxodimo projektu byt' zakončennym zavtra.
was.N.SG necessary project.DAT be.INF complete.PTCP tomorrow
'It was necessary for the project to be completed tomorrow.'

Furthermore, the DP / PRO alternation is not completely free, since the availability of an embedded lexical subject depends on the presence of an overt matrix Holder; argumentation for this is provided in the next section.

5.2 Regulating the alternation

The structure in (19), repeated in (30), straightforwardly represents sentences with is a mandative predicate embedding a non-finite clause with a controlled PRO subject (31a) and allows for sentences with an embedded overt subject (31b) seemingly without a restriction.

(30)



(31) a. Maša velela Anneᵢ [PROᵢ pomyt' vmeste posudu].
Maša.NOM ordered Anna.DAT wash.INF together dishes.ACC
'Maša ordered Anna to wash the dishes together.'

b. Maša velela [proektu zakončit'sja k martu].
Maša.NOM ordered project.DAT complete.INF by March
'Maša ordered for the project to be complete by March.'

Crucially, based on the structure in (19/30) we could expect sentences with both an overt obligation holder and an overt embedded subject to be grammatical. However, it turns out that overt realization of these two dative DPs together is prohibited (32), even though there is no general restriction ruling out co-occurrence of two dative DPs next to each other within one sentence in Russian (33).

(32) a. *Maša velela Anne [projektu zakončit'sja k Martu].
Maša.NOM ordered Anna.DAT project.DAT complete.INF by March
Intended: 'Maša ordered Anna for the project to be complete by March.'

b. *Anne nado [projektu zakončit'sja k Martu].
Anna.DAT necessary project.DAT complete.INF by March
Intended: 'For Anna it is necessary for the project to complete by March.'

(33) Maša velela Anne [Pete kupit' podarki].
Maša.NOM ordered Anna.DAT Petja.DAT buy.INF presents
'Maša ordered Anna to buy presents for Petja.' ('Petja' = an embedded beneficiary)

Thus, the DP / PRO alternation under a mandative verb / deontic modal is described by the following generalization (34).

(34) **Generalization**: An embedded overt referential subject is allowed only when there is no potential dative DP controller available within a higher clause.

What we need to account for the generalization is a feature / property that would allow us to distinguish between PRO cases and DP cases and would be related to the presence of an overt matrix Holder. I propose that this feature is Case. I assume that, although DPs and PRO, in principle, can be merged within the same syntactic environment, an overt DP subject of an embedded clause must be Case licensed by a functional head. A non-finite T is capable of assigning only the 'Null Case' unsuitable for DPs;[18] however, in sentences with a matrix mandative / deontic modal predicate licensing can be done by a matrix applicative head, which introduces and (normally) licenses a Holder.[19] Therefore, an embedded referential subject ends up competing with an overt matrix Holder for the Case licensed by a matrix Appl^0.[20] The two DP / PRO options are the

18 The proposed analysis is built upon the idea of the 'Null Case' assigning non-finite T / C. It has been argued, however, that in Russian a 'proper' structural subject case is assigned within non-finite clauses. Support for this claim usually comes from the availability of dative-marked embedded subject-oriented semi-predicatives (i) (Comrie 1974, Greenberg 1987, Franks and Hornstein 1992, Babby 1998, Moore and Perlmutter 2000, Fleisher 2006, and Landau 2008, i.a.).

(i) Petja rešil sdelat' *odnomu / samomu zadanije.
Petja.NOM decided do.INF alone.DAT himself.DAT task.ACC
'Petja decided to do the task alone / himself.'

The most popular account for these data is developed along the following line: the antecedent for a subject oriented semi-predicative embedded in a non-finite clause is the silent PRO subject; since a semi-predicative always gets the same case as its antecedent, the dative-marked *sam / odin* indicates that PRO is dative. The source for dative case on PRO is assumed to be a functional head within a non-finite clause itself (either T or C).

The data turn out to be more complex, and there are, clearly, other factors yet to be examined that influence speakers' judgments and lead to apparent inconsistency of evaluations (consider, for instance, the difference between *odin* and *sam* in (i)). Crucially for the present discussion, ordinary secondary predicates that in finite clauses bear the same case as their antecedents, can never be dative in an embedded non-finite clause (ii).

(ii) Petja rešil ne prixodit' bol'še pjanym / pjanyj / *pjanomu domoj.
Petja.NOM decided NEG come.INF anymore drunk.INS drunk.NOM drunk.DAT home
'Petja decided not to come home drunk anymore.'

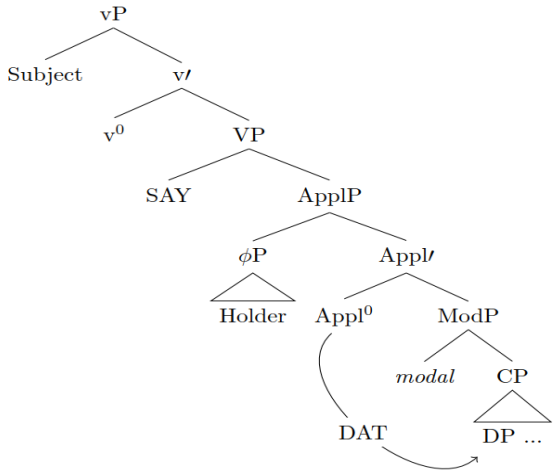
Madariaga (2006) proposes that semi-predicatives are QPs undergoing direct adjunction to PredP / VP; however, a similar analysis has been put forward for case concord secondary predicates by Bailyn (2001, 2002), who argues that they are APs / NPs adjuncts to the clausal spine. Thus, both kinds of modifiers are expected to behave in the same way with regard to case marking, contrary to the facts. Following Grebenyova (2005) and Franks (2014), I assume that the difference between secondary and semi-predicatives is unexpected under the assumption that they establish case concord with the embedded dative-marked PRO subject. Until we fully account for concord of semi-predicatives and non-verbal predicates, these data cannot be considered reliable evidence of the availability of a 'proper' subject Case in non-finite clauses.

19 The analysis relies on the idea that downward Head-Spec Case assignment is available in Russian together with the Spec-Head one. Within the minimalist theory, this discrepancy is well-known in languages where ECM-type phenomena are attested. Within a more recent Agree framework (Chomsky 2001 and elsewhere) when Case is considered to be one of the features to check, the dual directionality can be accounted for by adopting a restricted 'hybrid' approach. From a crosslinguistic perspective, support for downward agree has been found in many languages; at the same time, as noted by Koopman (2006), Chomsky's original (2001) notion of Agree leaves a possibility for (a kind of) agreement to be triggered under Merge. The distance of Case licensing is discussed in the next section.

20 I assume that multiple Case assignment to DP arguments is unavailable in Russian, although in some languages a single Case can arguably be assigned to several arguments at the same time (see, for instance, Scandinavian double object constructions where both the Goal and the Theme are accusative). A mechanism of multiple 'Case agreement' by a single functional head has been adopted by Richardson (2001), Bailyn (2001), Madariaga (2006),

following: if the matrix Holder is an overt DP, it must receive Case from Appl^0; if the Holder is implicit, a DP-less φP that does not require Case to be licensed, an overt embedded subject can get Case and the derivation survives. The structural representation for such sentences is given in (35).

(35)



Following Landau's (2010) discussion of implicit arguments,[21] I argue that the structural presence of an implicit φP Holder (and, consequently, the presence of Appl^0) is supported by the fact that the Holder still controls PRO within the lower non-finite clause (36).

(36) a. Maša velela *ec*$_i$ [PRO$_i$ spasat' pand].
Maša.NOM ordered save.INF pandas.ACC
'Maša ordered to save pandas.'

b. *ec*$_i$ neobxodimo [PRO$_i$ spasat' pand].
necessary save.INF pandas.ACC
'It is necessary to save pandas.'

---

i.a., to account for case concord in sentences with secondary predicates (i).

(i) a. Petja prišel pjanyj. b. Petja uvidel Vasju trezvogo.
Petja.NOM came drunk.NOM Petja.NOM saw Vasja.ACC sober.ACC
'Petja came drunk.' 'Petja saw Vasja when Vasja was sober.'

Note, however, that the authors themselves consider secondary predicates to be adjuncts on the clausal spine related to an antecedent DP bearing the same case. This makes the examples in (i) quite different from those with unrelated dative DP arguments discussed in this paper; thus, the mechanism that regulates case concord between an argument and a non-verbal predicate does not necessarily holds for independent arguments. Furthermore, competing analyses for case concord that argue against multiple connections with the same functional head have been proposed by Franks and Hornstein (1992), Matushansky (2008), Baker (2008), Franks (2014), i.e.; see, for instance, the idea of case agreement with a (local) DP available in parallel to agreement in number and gender put forward by Franks (2014).

21 The idea that pronouns come in different sizes can be traced back to Cardinaletti (1994) and Cardinaletti and Starke (1999). Other important works on the topic include Ritter (1995) and Noguchi (1997), to name a few; in particular, Déchaine and Wiltschko (2002, 2017) should be mentioned, where the authors develop a typology of personal pronouns and anaphors based on their structural size, from DPs to φPs and bare Ns.

Obligatory control between the two covert elements becomes evident when the implicit Holder refers to a specified being. Compare the basic sentence in (37a) with the test sentence in (37b).

(37) a. Načal'nikam nado, čtoby sotrudniki rabotali kak možno bol'še.
bosses.DAT necessary so that employees.NOM work.SUBJ as much as possible
'For the bosses it is necessary that the employees work as much as possible.'

b. Sotrudniki uznali, čto ec_i nado [ec_i rabotat' kak možno bol'še].
employees.NOM learned that necessary work.INF as much as possible
(i) 'The employees learned that for them it is necessary to work as much as possible.'
(ii) '... that for the bosses it is necessary to work as much as possible.'
Not available: '... that for the bosses it is necessary for them (the employees) to work as much as possible.'

Within the given context (37a), the bosses believe that the employees should work as much as possible, while the employees themselves may have a completely different opinion on the issue. Taking this into account and assuming that the reference of implicit Holders and covert embedded subjects is established independently, we would expect (37b) to be interpreted as 'The employees have learned that to their bosses it is necessary that they (the employees) would work as much as possible'. This reading, however, turns out to be unavailable, and in (37b) the silent Holder and the silent embedded subject must refer to the same group of people – only the bosses or only the employees.

Based on these data I argue that an implicit Holder, similarly to an explicit one, is syntactically present in sentences with a covert embedded subject and, by extension, in sentences with an overt referential embedded subject.[22]

The correlation between the availability of an overt subject in the embedded non-finite clause and the presence of a matrix $Appl^0$ further manifests itself in sentences with a matrix

22 Landau (2010) proposes to distinguish between strong and weak implicit arguments; the two kinds of entities are structurally different, as weak implicit arguments are 'deficient' D-less φPs, yet all of them are syntactically projected and are potentially visible as controllers. However, only strong IAs, but not weak IAs, are visible as subjects of predication and binders to Condition A. In Russian, overt matrix Holders can license instrumental secondary predicates and bind reflexives and reciprocals in subject-oriented modifiers; however, implicit Holders are incapable of doing so (i).

(i) a. *(Nam$_i$) samim po sebe nado [PRO$_i$ spasat' pand]
we.DAT ourselves / themselves necessary save.INF pandas.ACC
Only: 'It is necessary for us ourselves to save pandas.'
b. Pjanymi *(nam$_i$) neobxodimo [PRO$_i$ vernut'sja domoj kak možno ran'še].
drunk.INS we.DAT necessary return.INF home as soon as possible
Only: 'Drunk, it is important for us to return home as soon as possible.'

This behavior of implicit Holders suggests that they are, in Landau's (2010) terms, weak arguments, φPs.

epistemic modal, such as *vozmožno* 'possible', *verojatno* 'probable', which embed a non-finite clause but prohibit a matrix Holder (38).

(38) (*Maše) vozmožno vstretit' znakomyx / čto Anna vstretit znakomyx.
Maša.DAT possible meet friends.ACC that Anna.NOM meet.NPST friends.ACC
'It is probable to meet friends / that Anna will meet her friends.'

As shown in (39), overt referential subjects are also unavailable in infinitival clauses embedded under such a predicate.

(39) *Vozmožno stroitel'stvu zakončit'sja k martu.
possible construction.DAT complete.INF by March
Intended: 'It is possible that the construction will be complete by March.'

This can be easily accounted for by the present analysis: no applicative head is projected in the matrix clause with an epistemic modal and there is no accessible external source for Case that would be able, if available, to license an embedded overt DP subject. Although the behavior of epistemic modals does not necessarily prove that the proposed Case assignment analysis is the only viable approach, the fact that dative Holders and overt embedded subjects not only are allowed but can also be disallowed simultaneously strengthens the connection between the two.

Returning to the proposed Case licensing analysis, I argue that Case assignment happens by establishing a long-distance cross-clausal A-dependency between $Appl^0$ and the embedded subject (see Wurmbrand (2018) for a discussion of cross-clausal A-dependencies across the world's languages), since the latter does not undergo subject-to-object raising into a matrix position and stays relatively low within the embedded clause. Support for this is provided in the next subsection.

5.3 The distance of Case licensing

5.3.1 Against subject-to-object raising

The dative DP interpreted as an argument of the embedded clause can stay within this clause and does not have to undergo A-movement,[23] as demonstrated by the behavior of negative concord items (NCIs) and the positioning of adjuncts.

5.3.1.1 The licensing of negative concord items

First, licensing of negative concord items (*ni-* pronouns, NCIs) should be considered. In general, Russian NCIs are proper n-words, adopting the terminology coined in Laka (1990): they usually

23 This does not imply that the embedded subject cannot raise at all; for example, it can undergo A-bar movement under topicalization, etc. What I argue for throughout this paper is that, for Russian, there is no evidence for obligatory subject-to-object raising and that the embedded subject does not have to end up in a matrix A-position.

appear together with a clausemate negation; thus, an embedded negation cannot license an NCI located within the matrix clause (40).

(40) a. *Nikto velel Ivanu ne prixodit'.
nobody.NOM ordered Ivan.DAT NEG come.INF
Intended: 'Nobody ordered Ivan not to come.'

b. *Dlja nikogo nužno ne prixodit'.
for nobody.GEN necessary NEG come.INF
Intended: 'For nobody it is necessary not to come.'

However, in sentences with a matrix evaluative / deontic modal predicative, a dative DP interpreted as the embedded subject can be an NCI (see, for instance, *nikomu* 'nobody.DAT' in (41)) when there is no matrix negation.

(41) a. Ivan velel nikomu ne prixodit'.
Ivan.NOM ordered nobody.DAT NEG come.INF
'Ivan ordered that nobody would come.'

b. Nado nikomu ne prixodit'.
necessary nobody.DAT NEG come.INF
'It is necessary for nobody not to come.'

In sentences similar to (41), there must be a negation in the subordinate clause; it is this embedded negation that licenses an NCI, and since such licensing requires local c-command, the NCI must itself be within the subordinate clause. Consider the contrast between the acceptable examples in (41) and the ungrammatical example in (42), which shows that an NCI seeking to be licensed by an embedded negation cannot occupy the matrix direct object position.

(42) *Ivan vynudil nikogo ne prixodit'.
Ivan.NOM forced nobody.ACC NEG come.INF
Intended: 'Ivan forced nobody to come.'

It is not an easy task to demonstrate that an NCI licensed within its embedded clause cannot further raise into an A-position in a matrix clause, as no cases of long-distance raising to subject / object have been reported in Russian. However, Stepanov (2007), following Schoorlemmer (1994), argues that the modal verb *moč'* 'can, may', which can receive both epistemic and deontic interpretations, is a functional predicate in a monoclausal construction (see also Wurmbrand (2001) for an analysis of modal verbs in English in terms of functional restructuring). Importantly, in this construction two

positions are available for negation: it can be high, scoping above the modal (43a), or low, scoping above the lexical predicate (43b).

(43) a. Xoloda mogut ne isportit' posevy.
cold.weather.PL.NOM can.NPST.PL NEG damage.INF crops.ACC
'It is possible for cold weather not to damage crops.'

b. Xoloda ne mogut isportit' posevy.
cold.weather.PL.NOM NEG can.NPST.PL damage.INF crops.ACC
'It is not possible for cold weather to damage crops.'

The lower negation can license a negative concord item in a lower structural position, however, it cannot license the subject, which, according to Stepanov (2007) is merged as an argument of the lexical predicate and raises to the matrix subject position (44).

(44) a. Xoloda mogut ne isportit' ničego.
cold.weather.pl.NOM can.NPST.PL NEG damage.INF nothing.GEN
'It is possible for cold weather not to damage anything.'

b. *Ničto možet ne isportit' posevy.
nothing.NOM can.NPST.3SG NEG damage.INF crops.ACC
Intended: 'It is possible for anything not to damage crops.'

I argue that this behavior supports the claim that a negative concord item cannot undergo A-movement out of its local licensing domain.

5.3.1.2 The positioning of adjuncts

Second, let us consider the positioning of various adjuncts characterizing matrix and embedded events. In Russian, relatively unrestricted adjunct scrambling is attested within a single clause, even though adjunct movement across a clausal boundary is allowed only into a focus / topic position at the left periphery (see Bailyn (2003) on scrambling in Russian) (45).

(45) a. (včera) Maša (včera) pročitala (včera) etu knigu (včera).
yesterday Maša.NOM yesterday read yesterday this book.ACC yesterday
'Maša read this book yesterday.'

b. (ZAVTRA) Maša (*zavtra) zastavila (*zavtra) Petju [(zavtra) poexat']
tomorrow.FOC Maša.NOM tomorrow forced tomorrow Petja.ACC tomorrow go.INF
'Maša forced Petja to go there tomorrow / TOMORROW.'

In sentences with a matrix mandative / deontic modal predicate and an embedded non-finite clause, an adjunct inserted between a DP_{DAT} unambiguously interpreted as the embedded subject and the rest of the infinitival clause can modify only the embedded predicate and not the matrix one (46).

(46) a. Maša velit projektu {nepremenno / v ponedel'nik} byt' zakončennym.
Maša.NOM order.FUT project.DAT certainly on Monday be.INF finish.PTCP
'Maša will order that the project be finished necessarily / on Monday.'
Not available: 'Certainly / on Monday Maša will order that the project be finished.'

b. Nužno / nado bylo rane ešče včera zažit'.
necessary / necessary was wound.DAT already yesterday heal.INF
'It was necessary that the wound would have healed already yesterday.'
Not available: 'Already yesterday it was necessary that the wound would heal.'

In contrast, if the dative DP refers to a sentient being or a group of beings and can denote a matrix Holder (47), or an adverb / a temporal adjunct is positioned between a mandative / deontic modal predicate and a dative DP (48), the examples receive an ambiguous interpretation.

(47) a. Maša velit Pete v ponedel'nik pomyt' posudu.
Maša.NOM order.FUT Petja.DAT on Monday wash.INF dishes
(i) 'Maša will order Petja to wash the dishes on Monday.'
(ii) 'On Monday Maša will order Petja to wash the dishes.'

b. Nado bylo Pete včera zakončit' projekt.
necessary was.N.SG Petja.DAT yesterday finish.INF project.ACC
(i) 'Yesterday, for Petja it was necessary to finish the project.'
(ii) 'For Petja it was necessary to finish the project yesterday.'

(48) a. Maša velit nepremenno / v ponedel'nik projektu byt' zakončennym.
Maša.NOM order.FUT certainly on Monday project.DAT be.INF finish.PTCP
(i) 'Maša will order that the project be finished necessarily / on Monday.'
(ii) 'Certainly / on Monday Maša will order that the project be finished.'

b. Nužno / nado bylo ešče včera rane zažit'.
necessary / necessary was already yesterday wound.DAT heal.INF
(i) 'It was necessary that the wound would have healed already yesterday.'
(ii) 'Already yesterday it was important / necessary that the wound would heal.'

Taking all these data into account, I conclude that the dative DP under consideration can be base-generated within the embedded non-finite clause and, importantly, stays within its clause.

5.3.2 Long-distance Case licensing

As argued in the previous subsection, overt embedded subjects in the sentences under discussion do not undergo A-raising into a matrix position. Furthermore, they appear to stay relatively low within the embedded clause, presumably in Spec, TP; evidence for this comes from the inability of embedded lexical subjects to scramble with CP-level *-to* topics (49) (see Dyakonova (2009), Scott (2012), i.a., for a discussion of these left-periphery items).

(49) Neobxodimo [k martu-to sroitel'stvu (*k martu-to) zakončit'sja]?
necessary by March-TO construction.DAT by March-TO complete.INF
'As for the construction, is it important for it to be complete by March?'

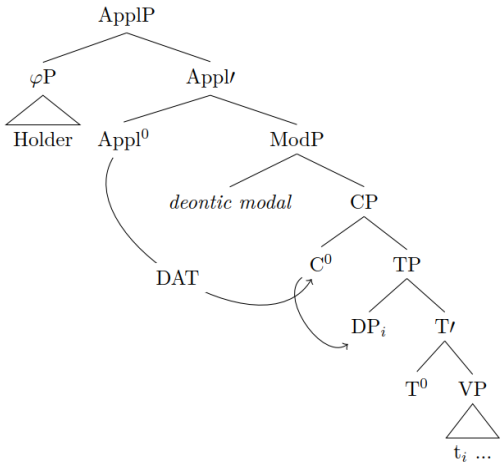
In such cases, an overt embedded subject can still get licensed by the matrix Appl^0; to account for this I propose that long-distance Case assignment is done across the clausal boundary. Cases of cross-clausal A-dependencies have been argued to exist in several other languages, including, for instance, hyper raising in Brazilian Portuguese (Nunes 2009; Ferreira 2009), long-distance agreement in Hindi-Urdu and Tsez (Mahajan 1990; Polinsky and Potsdam 2001; Chandra 2007, i.a.), and cross-clausal ECM in Turkish (Şener 2011).

To overcome the apparent violation of the Phase Impenetrability Condition (PIC)[24] I assume that the long-distance Case licensing in Russian is cyclic. Approaches along this line have been proposed for several languages: see, for instance, Bhatt's (2005) analysis for long-distance object agreement in Hindi-Urdu and Legate's (2005) proposal based on examples from English, Celtic, Passamaquoddy, i.a.

The idea of cyclic Case assignment is straightforward: instead of postulating direct feature sharing between a matrix head and an embedded DP, we divide this process into smaller steps. In the case of Russian, the embedded C^0 serves as an 'intermediary'. Case assignment proceeds as follows: the matrix Appl^0 establishes a relation with the embedded C^0 which, in turn, allows the embedded DP to receive the required Case (schematized in (50) for deontic modals).

24 See Bobaljik and Wurmbrand (2005), Den Dikken (2007, 2012), and Bošković (2014), i.a., on phases as the highest projection of a cyclic domain – vP, CP.

(50)



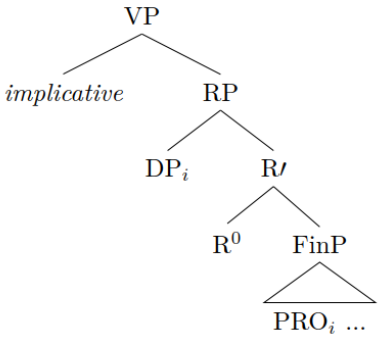
I assume that non-finite C^0 can participate in Case licensing; see a similar idea that C^0 exhibits both A-bar and A properties put forward in Landau's (2004, 2006) work and van Urk's (2015) proposal, based on data from Dinka.

This assumption leaves open the following question: How could such an operation be restricted? One possible answer is that the long-distance Case licensing is restricted by interfering factors unrelated to the status of C. For example, under the proposed analysis, a free Case must be available for the long-distance Case licensing to happen. Thus, if Case is always 'taken' by a matrix argument that cannot be a φP, we expect it to be impossible for an overt embedded subject to get licensed. This is what happens in sentences with a matrix implicative verb, such as *zastavit'* 'force', already mentioned in Section 3. Recall that sentences with a matrix implicative allow only obligatory control and prohibit overt embedded subjects (51).

(51) *Direktor zastavil [večerinku prodolžat'sja do polunoči].
director.NOM forced party.ACC continue.INF until midnight
Intended: 'The director forced the party to continue until midnight.'

Implicatives differ from mandatives in that they do not necessarily involve an act of direct communication and do not entail deontic modality; thus, the proposed decompositional analysis is not applicable to them. Instead, I adopt Landau's (2015) account and assume that, in sentences with a matrix implicative, the embedded non-finite clause is predicated of the matrix controller, as schematized in (52), where RP stands for the Relator Phrase, i.e. a small clause.

(52) *A sentence with a matrix implicative verb*



A detailed discussion of the structure lies beyond the limits of this paper, however, the following property is crucial. As shown in (53), implicatives prohibit covert φP controllers, which can be explained by adopting Landau's (2010) assumption that a φP would be invisible as the subject of predication.

(53) Direktor zastavil *(Mašu$_i$) [PRO$_i$ ujti].
director.NOM forced Maša.ACC leave.INF
'The director forced Maša to leave.'

As a DP controller must always receive Case from matrix v^0, the feature becomes further unavailable for other DPs; hence, an overt embedded subject is illicit.

5.4 Expanding the data-set

In this section I will expand the data-set by presenting two constructions that allow a kind of DP / PRO alternation very similar to the one presented in the paper, fall under the proposed Generalization (an overt embedded subject is allowed only when there is no overt controller in the matrix clause), and can potentially be accounted for by a Case licensing analysis. The constructions include main clause infinitives in Russian and sentences with a matrix evaluative adjectival predicate in Hungarian; I will briefly discuss each of these cases, outlining some directions for future investigation.

5.4.1 Main clause infinitives in Russian

As mentioned above, in main clause infinitives a non-finite clause combines with a dative DP with the help of the BE copula (covert in present tense) (54); semantically, their interpretations involve root existential modality ('can', 'may').

(54) a. Maše (budet) rano vstavat'.
Maša.DAT be.FUT early wake.up.INF
'Maša should / will have to wake up early.'

b. Pete bylo ne rešit' etu zadaču.

Petja.DAT existed NEG solve.INF this task.ACC

'Petja could not solve this task.'

There are ongoing debates on whether a control relation is established between the dative DP and the embedded PRO subject or the overt embedded subject itself raises to a matrix position (Moore and Perlmutter (2000), Fleisher (2006), Jung (2009), Tsedryk (2017), and references therein). I argue that, just as in the case of mandative / modal predicatives, the two lines of argumentation should be reconciled to reveal the truth.

On the one hand, main clause infinitives exhibit a crucial obligatory control property: partial coreference between the dative DP and the covert embedded subject is allowed (55).

(55) ?Petja sčitaet, čto Maše$_i$ PRO$_{i+}$ ne pojti vmeste v kino.
Petja.NOM believes that Maše.DAT NEG go.INF together into cinema
'Petja believes that Maša cannot go to the cinema together.'

On the other hand, the construction shows positive results for the diagnostics for an overt embedded subject, such as the idiom chunk and non-sentience tests (56); see Jung (2009) advocating a raising analysis.

(56) a. Čërnoj koške$_i$ bylo iz-za čego t$_i$ probežat' meždu nimi.
black cat.DAT was because of what run.INF between them
Idiomatic reading available: 'They had a reason to quarrel.'
Literally: 'The black cat had a reason to run between them.'

b. Petja sčitaet, čto gruzovikam zdes' ne projexat'.
Petja.NOM believes that trucks.DAT here NEG pass.INF
'Petja believes that the trucks cannot pass here.'

A detailed examination of all peculiar properties of this construction is beyond the limits of this paper, and, for the present discussion, it suffices to conclude that it allows the DP / PRO alternation in the embedded non-finite environment.

Furthermore, main clause infinitives fall under the proposed generalization: the matrix dative DP cannot co-occur with an overt embedded subject (57).

(57) *Pete bylo gruzovikam ne proexat'.
Petja.DAT was trucks.DAT NEG pass
Intended: 'For Petja for the trucks it was impossible to pass.'

Building upon Fleisher (2006) and Tsedryk (2017), i.a., I suggest the following (simplified) structural representations for main clause infinitives (58).[25]

(58) $[_{ApplP}\ [DP_{DAT}]_i\ [_{Appl'}\ Appl^0\ [_{ModP}$ *silent deontic modal* $[_{CP}\ PRO_i$ infinitive]]]]

I argue that the traditional descriptions should further be revised to account for the possibility of an overt embedded subject, licensed by the higher functional head when the matrix participant is an implicit φP, in the way presented in (59).

(59) $[_{ApplP}\ \varphi P_i\ [_{Appl'}\ Appl^0\ [_{ModP}$ *silent deontic modal* $[_{CP}\ PRO_i$/DP infinitive]]]]

As in the case of sentences with a matrix mandative / deontic modal predicate and an embedded non-finite clause, the Case assignment analysis might be not the only way to account for the control vs. no control ambiguity of main clause infinitives. However, the proposed approach can straightforwardly capture the relevant properties noted by the two competitive lines of research.

5.4.2 Evaluative adjectival predicates in Hungarian

Cases of DP / PRO alternation restricted by the presence of an overt matrix controller similar to the one discussed in this paper can be found in other languages; consider, for instance, Hungarian sentences with a matrix evaluative adjectival predicate, such as *fontos* 'important' and *kellemetlen* 'unpleasant' (see Tóth (2000), É. Kiss (2002), Rákosi (2006), i.a., discussing these constructions in more detail). As illustrated in the examples below, these predicates usually embed a non-finite or a finite subjunctive clause and a dative (attitude) Holder (60). In case of a non-finite clause, the Holder obligatorily controls the embedded PRO.[26]

(60) a. János-nak fontos / kellemetlen [megjelen-ni(-?e) az ünnepélyen].
János-DAT important / unpleasant appear-INF-3SG DET ceremony.at
'It is important / unpleasant for János to appear at the ceremony.

b. János-nak fontos / kellemetlen (az), [hogy Kati későn érkezett].
John-DAT important / unpleasant (it) that Kate late arrived

25 Fleisher's (2006) arguments for bi-claisality of main clause infinitives include the following: (i) presence of the finite matrix *byt'* 'be', (ii) positioning of (embedded) negation after *byt'*, (iii) co-occurrence of *byt'* with perfective infinitives, normally prohibited in monoclausal constructions. A bi-clausal approach is also implied in Schein (1982), and Sigurðsson (2002).

26That the covert embedded subject is PRO becomes evident in sentences with ellipsis where only a bound variable reading is available (i).

(i) János-nak fontos megjelen-ni az ünnepélyen, és Mari-nak is.
János-DAT important appear-INF DET ceremony.at and Mari-DAT too
Only: 'For János it is important to appear at the ceremony, and for Mari it is also important that she will appear at the ceremony.'

'It is important / unpleasant for John that Kate arrived late.'

Furthermore, the embedded subject position can also be occupied by an overt referential DP; for instance, in (61) the inanimate dative DP *a szögnek* cannot refer to an Attitude Holder and is merged as an argument of the embedded predicate, resulting in literal and idiomatic interpretations.

(61) Fontos volt [a szög-nek ki-búj-ni(-?a) a zsákból].
important was DET nail-DAT out-get-INF-3SG the bag.in
Literally: 'It was important for the nail to get out of the bag.'
Idiomatic: 'It was important for the truth to be revealed.'

Although further examination of the constructions is required, the availability of overt / covert subjects does not appear to correlate with the feature specification of an embedded non-finite clause.[27] I adopt Rákosi's (2006) approach and analyze evaluative adjectives in Hungarian as predicates with one internal argument (usually, a proposition), while an external Attitude Holder is introduced in Spec,ApplP, in line with Pylkkänen (2000); the structure, which is very similar to the one for Russian deontic modals, is schematized in (62).

(62) $[_{ApplP}\ [DP_{DAT}]_i\ [_{Appl'}\ Appl^0\ [_{AdjP}\ Adj^0\ [_{InfP}\ PRO_i/DP\ \ldots\ ]]]]$

The subject position of an embedded non-finite clause can be occupied either by PRO or by an overt referential DP; furthermore, as demonstrated by Tóth (2000) and Rákosi (2006), the embedded subject can stay within a non-finite clause on its left periphery (the argumentation is omitted here due to the limitations of space). Crucially, Hungarian sentences under consideration comply with the Generalization proposed for Russian: an overt (Attitude) Holder and an overt embedded subject cannot co-occur (63).

(63) a. *János-nak kellemetlen[Péter-nek ilyet kér-ni(-e)].
János-DAT unpleasant Péter-DAT such.ACC ask-INF-3SG
Intended: 'It was unpleasant for János for Péter to ask such a thing.'

b. *János-nak fontos volt [a szög-nek ki-bújni(-a) a zsákból].

27Rákosi (2006) claims that the subject of the infinitival clause is a dative DP when an infinitive is agreement-marked and that, in case of a non-agreement-marked infinitive, the subject position is occupied by PRO. However, the data need to be thoroughly revised. As shown in the examples presented in this section, which were elicited from native speakers of Hungarian, presence of an agreement marker is judged as marginal regardless of whether the embedded subject is a DP or PRO.

János-DAT important was DET nail-DAT out-get-INF-3SG the bag.in

Intended: 'It was important for János for the truth to be revealed.'

I suggest that a Case licensing analysis similar to the one developed for Russian can account for the Hungarian puzzle as well: the Holder and the embedded subject get licensed by the same functional head, namely, the matrix $Appl^0$. There remain many questions about particular properties of the Hungarian sentences that I have not touched upon in this brief discussion, and further investigation of the parallels between Russian, Hungarian, and (potentially) other languages will contribute to the discussion of distribution and licensing of nominal elements.

6 Concluding remarks

The paper focused on mandative verbs and deontic modals in Russian and presented the two previously unnoticed puzzles: first, the syntactic distribution of these two groups of predicates is almost identical and, second, they support both obligatory control and an ECM-type configuration, embedding non-finite clauses with PRO / overt DP subjects.

To account for the first puzzle, I developed a single analysis arguing that constructions with a matrix mandative verb should be decomposed: mandative verbs are, essentially, lexical realizations of a verb of communication that embeds a silent deontic modal head. The data under consideration open the door to further investigation of functional vs. lexical and overt vs. covert modal items.

As for the second puzzle, the reported DP / PRO alternation posits a challenge to the existing categorizations of clause-embedding predicates that attempt to place each verb either into the 'overt embedded subject' group or the 'control' group. I further demonstrated that the alternation does not correlate with the structural size or the Tense – Agr characteristics of embedded infinitival constructions, however, it is not completely free either, and the availability of an embedded lexical subjects depends on the presence of an overt dative Holder in the matrix clause.

I argued that the Case licensing approach (Chomsky 1981) comes closest to capturing the DP / PRO alternation. On the one hand, DPs and PRO can be merged within the same syntactic environment, but on the other hand, an overt DP subject must be licensed by Case received from a functional head. Although T^0 in a non-finite construction is inherently deficient, in sentences with a matrix evaluative / deontic modal predicative Case valuation can be done by a matrix applicative

head, which introduces a Holder. Since lexical subjects of embedded infinitives can stay relatively low, arguably, in Spec,TP, I proposed that Case licensing is cyclic and is mediated by C^0 (Legate 2005). From an empirical point of view, the Russian data complement the other cases of cross-clausal A-dependencies, since most of them are attested either in smaller non-phasal infinitives or in finite clauses with embedded agreement and an overt complementizer.

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