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Mandative verbs:

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. This 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, which normally introduces an obligation Holder; thus, matrix Holders and lexical embedded subjects end up competing to match features of 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 subjects 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 obligatory control and overt embedded subjects are available, often arguing for the complementary distribution of the two

phenomena.[1] Hence, multiple classifications for predicates that can embed a non-finite clause have been proposed: see, for example, Davies and Dubinsky (2004) for a classification of English verbs, Wurmbrand's (2001) theory of restructuring configurations, Jackendoff and Culicover (2006) for a semantic categorization, to name a few. Meanwhile, rare exceptions that support both control and raising – such as English aspectual predicates like *begin* – are often analyzed in terms of lexical ambiguity (Perlmutter 1970).

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: they can embed non-finite clauses both with covert (controlled, (1a)) and overt (referential, (1b)) subjects.

(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

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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), a.o., 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 mechanism of theta-role assignment.

2 Wurmbrand (2001), Landau (2013), a.o., 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), a.o. 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*.

'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 remain independent and 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.

The existing approaches that aim to classify the predicates under discussion as either control or raising / ECM[3] are too restrictive to fully account for the data. Instead, I develop a novel analysis that captures all the relevant properties of the constructions under discussion and further explains the similar syntactic distribution of mandative verbs and deontic modals. In essence, I propose that mandative verbs are overt realizations of a verb of communication that embeds a silent deontic modal; the latter, in turn, selects a propositional clause as its argument.[4] Unlike in those approaches that place a modal component within an 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 structure is given in (2), where either PRO or a referential DP can occupy the structural subject position of the embedded non-finite clause.

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3   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.

4   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.

(2)
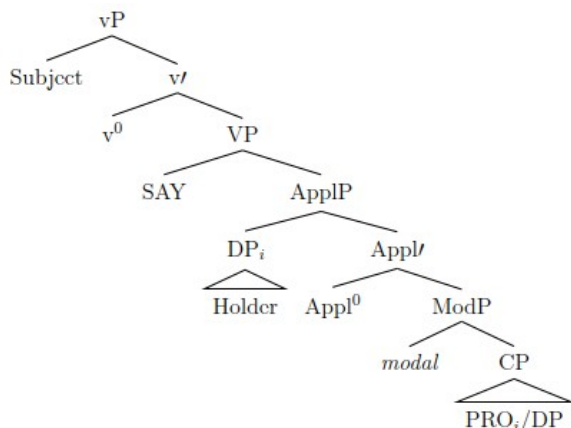
Focusing on the DP / PRO alternation, I demonstrate that, on the one hand, it does not correlate with the structural size or the Tense – Agr characteristics of the embedded non-finite clause (see many analyses along these lines in Landau (2004), Bondaruk (2006), Pires (2007), a.o.). On the other hand, 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 (compare this, for example, to the arguably free DP / PRO alternation in Dravidian languages reported by Sundaresan and McFadden (2010)). I propose to regulate the alternation in terms of cross-clausal Case assignment, inspired by a combination of Chomsky's (1981) classical Case licensing theory and a more recent claim that DPs and PRO are not inherently in complementary distribution, put forward by McFadden (2004), a.o.

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 (3a) and (3b): if the matrix Holder is an overt DP, it must check Case with $Appl^0$ (3a); if, however, the Holder is implicit, a Case-less φP (following Landau (2010)), an overt embedded subject can get licensed instead (3b).

(3) a. $[_{ApplP} [_{DP} \text{Holder}]_i [_{Appl'} \text{Appl} [_{ModP} \text{modal} [_{CP} \text{PRO}_i \text{ infinitive}]]]]$
         ⌊——— DAT ———⌋

     b. $[_{ApplP} [_{φP} \text{Holder}] [_{Appl'} \text{Appl} [_{ModP} \text{modal} [_{CP} \text{DP infinitive}]]]]$
         ⌊——————— DAT ———————⌋

The Russian data complement the known cases of cross-clausal A-dependencies (see Wurmbrand (2018) for an overview of the problem), adding Appl to the set of functional heads that allow long-

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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). Following Chomsky (1995), I assume that PRO is a referentially dependent variable that does not require Case to be licensed, due to its lack of phi-features. Specification of phi-features must happen prior to LF either via establishing control relations with an appropriate antecedent, or by assigning arbitrary reference. 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, a.o.) 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.

Second, the standard Case vs. case notation is used to refer to the special (abstract) feature that licenses a nominal vs. its morphological realization. I adopt the revised version of Case Filter (Chomsky 1981) developed within the Agree framework (Chomsky 2000, 2001, 2008), where Case is treated as one of many features that must be valued when a nominal enters into a dependency with a functional head (Pesetsky and Torrego 2001).

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

2.1   Background

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.[5] 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'.[6]

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 (4). As illustrated here, the dative DP can be implicit;[7] as further shown

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5   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).

6   Adjectival modals are morphologically identical to the neuter.sg forms of the semantically equivalent short adjectives and have similar syntactic distribution. The main difference between long and short adjectives in Russian is that, while long adjectives can be used as predicates and prenominal modifiers and exhibit case concord with the subject / head noun, 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.

The question of why not all deontic modals have corresponding adjectival counterparts remains to be answered by future research. On the one hand, the fact that modals of necessity often behave differently from other modal items has been reported for many languages, starting with English *need* (Duffley 1994; Harves and Kayne 2012). On the other hand, not all deontic modals of necessity in Russian have agreeing adjectival counterparts; for instance, for *nado* 'necessary' there is no adjective **nadyj*. Thus it is hard to relate this property to their semantics.

7   At this point, I denote silent Holders as *ec*. I follow Landau (2010), a.o., in assuming that they are structurally present weak implicit arguments, phi-Ps; for argumentation, see Section 4.3.2 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.

in (4b), 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.

(4) 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.'

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 and event nominals.[8] Although the present paper primarily concerns sentences with an embedded non-finite clause, the examples in (5) provide important evidence against an analysis of Russian deontic modal predicatives as functional elements, as the broad range of possible dependents (both non-finite and finite clauses and nominals) suggests that the deontic modals under consideration are lexical heads (compare this to Wurmbrand's (1999, 2001) claim that modal verbs in many Germanic languages are functional heads in monoclausal constructions). This is further supported by the availability of obligatory control, as will be demonstrated in Section 3 of this paper.

(5) 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.'

c. Maša   razrešila Pete   pokupku   akcij.

Maša.NOM allowed Petja.DAT   buying.ACC   shares.GEN

'Maša allowed Petja to buy shares.'

d. Pete   byla   neobxodima pokupka   akcij.

Petja.DAT was.F.SG necessary   buying.F.SG.NOM shares.GEN

'For Petja it was necessary to buy shares.'

Let us now focus on 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 (6) and (7) 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 (6c) and (7c), the embedded subject obligatorily behaves as a bound variable under ellipsis, which suggests that it is not a *pro*.

(6) a. Ivan$_k$ skazal čto Petja velel Maše$_i$ pojti odno$_j$/ *odnomu$_k$.

Ivan.NOM said that Petja.NOM ordered Maša.DAT go.INF alone.F alone.M

'Ivan said that Petja had ordered Maša to go alone.'

← *logophoric control fails*

b. Petja velel [druzjam Maši$_k$]$_i$ pojti odnim$_i$ / *odnoj$_k$.

Petja.NOM ordered friends.DAT Maša.GEN go.INF alone.PL alone.F

'Petja ordered Maša's friends to go alone.'

← *non-c-command control fails*

c. 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*

(7) a. Ivan$_k$ skazal čto Maše$_i$ nužno / možno pojti odnoj$_i$ / *odnomu$_k$.

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

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

b. [Druzjam Maši$_k$]$_i$ nužno / možno pojti odnim$_i$ / *odnoj$_k$.

friends.DAT Maša.GEN necessary allowed go.INF alone.PL alone.F

'For Maša's friends it is necessary / allowed to go alone.'

c. 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	Embedded	DP$_{DAT}$ / embedded Subj coreference
Mandative verbs	Obligation Holder	+	Non-finite / finite subjunctive clause, event nominal	Obligatory
Deontic modals	Obligation Holder	+	Non-finite / finite subjunctive clause, event nominal	Obligatory

2.2 Towards the analysis

The following two and a half 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. 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).

So far, no formal analysis has been proposed for the non-verbal deontic modals in Russian. As for the mandative verbs, traditionally, they are considered ordinary object control predicates (Franks and Hornstein 1992; Babby 1998; Landau 2013, a.o.), on a par with their English counterparts. However, the recent works by Barrie and Pittman (2010) (for English) and Minor (2013) (for Russian) argue that these verbs should be analyzed as raising predicates with an overt embedded subject. Thus, Barrie and Pittman (2010) demonstrate that English mandative verbs like *order* and *permit* can pass the tests for an overt embedded subject (see their examples for expletives in (8a), idiom chunk in (8b) and embedded passivization in (8c)) and argue that sentences with these predicates **always** involve subject-to-object raising, although they do not support this claim with the results for movement diagnostics.

(8)   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.

Minor (2013) focuses on a similar class of verbs in Russian, and argues that, in sentences with a matrix mandative predicate (a speech act verb, in his terms) and an embedded non-finite clause,

only overt DPs with a hidden restrictor bound by the matrix 'controller' can occupy the embedded subject position (i.e. indefinite pronouns and quantified expressions, but not, for example, referential non-quantified DPs). 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 I will demonstrate in the next two sections, all these approaches face several problems when applied to the Russian data and need to be revised. The **first puzzle** that must be accounted for is the dual behavior of mandative verbs and deontic modals, as they support both obligatory control and an ECM-type configuration. Sentences with mandatives and deontic modals pass the tests for an overt embedded subject and the obligatory control diagnostics; thus, the subject position of an embedded non-finite clause can be occupied either by a referential DP or PRO. In the second case, that is, under the control configuration, the DP$_{DAT}$ that we see on the surface should be analyzed as a matrix Holder controlling the silent embedded subject. In addition to this, I argue that no real subject-to-object raising takes place, contrary to Barrie and Pittman (2010).

The **second puzzle** 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 analysis presented in this paper, as I argue that mandative verbs should be considered to be lexical realizations of a verb of communication embedding a silent deontic modal.

3   Overt embedded subjects vs. obligatory control

3.1   *The dative DP as the embedded subject*

I argue that the DP$_{DAT}$ in the sentences under consideration can 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 (contrary to Minor's (2013) claim). Evidence for this is found in the results for the idiom chunk, embedded passivization and inanimateness tests.[9]

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

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9   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), a.o., for a discussion of null expletives in Slavic languages.

idiomatic interpretation (9a, 9b), which is possible only if 'a black cat' DP is base-generated as a part of the embedded collocation.[10] In contrast, an idiomatic reading is not available in sentences with ordinary object control verbs, such as implicatives *zastavit'* 'force', *vynudit'* 'compel' (9c), which suggests that, in this case, 'a black cat' is thematically unrelated to the embedded predicate.

(9) 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.'

Note that the test does not work for all idioms in all contexts. The same phrase *čërnaja koška probežala meždu nimi* 'a black cat ran between them' apparently does not retain its idiomatic interpretation in (10).

(10) Ja   razrešil   čërnoj   koške   probežat'   meždu   nimi.

     I   allowed   black   cat.DAT   run.INF   between   them

     Literally: 'I allowed a black cat to run between them.'

     Idiomatic reading not available: 'I allowed them to quarrel.'

This can be explained, however, from a pragmatic point of view; it is generally difficult to combine an idiom and a corresponding non-idiomatic expression that describes a (usually) non-volitional act with a mandative predicate (11).

(11) a. Ja   razrešil,   čtoby   čërnaja   koška   probežala   meždu   nimi.

      I   allowed   so that   black   cat.NOM   run.SUBJ   between   them

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10 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   fromapple tree
   Idiomatic reading available: 'In such a family the children should not be like their parents.'

Literally: 'I allowed a black cat to run between them.'

Idiomatic reading not available: 'I allowed them to quarrel.'

b. #Ja razrešil im possorit'sja.

I allowed them.DAT quarrel.INF

'I allowed them to quarrel.'

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 (12a) and (12b) / (12c) and (12d) 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.

(12) 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 (13), semantic equivalency under voice transformations is not allowed in case of an ordinary object control verb.

(13) 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 (14), hence must be the embedded subject itself.

(14) 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 (15), this property distinguishes the predicates under discussion from ordinary object control verbs.

(15) *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. In the next subsection, I will demonstrate that the dative DP can also correspond to a matrix Holder, while the embedded subject position is occupied by PRO.

3.2   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 (16).[11]

(16) 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 predicates derived using the *raz-sja* affixes (*razojtis'* 'disperse', *razbežat'sja* 'scatter', *razrugat'sja* 'quarrel, break up') and subject-oriented *together*-type modifiers. Thus, (17) and (18) 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.

(17) 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.'

(18) 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.'

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11 In sentences similar to (16), 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), a.o., 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.

3.3   *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 (in particular, implicative predicates).

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, nominal	Obligatory	+	+
Deontic modals	DP_{DAT}	Non-finite, finite subjunctive, nominal	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 of the predicates under consideration manifests itself in constructions with embedded voice transformations (12) and in sentences with a quantified dative DP, which has wide scope and narrow scope readings depending on the structural interpretation. Consider, for example, (19) where two readings are available: the DP_{DAT} 'five boys' can scope either above the matrix predicate (wide scope) or within the embedded clause (narrow scope).

(19)   Petja   razrešil   pjati   malčikam   ostat'sja.

Petja.NOM   permitted   five.DAT   boys.DAT   stay.INF

(i) 'There are five boys such that Petja permitted them to stay.' (wide scope)

(ii) 'Petja permitted (someone) that there be five (random) boys who would stay.'

(narrow scope)

The availability of a narrow scope reading signals that the quantified DP is base-generated within the lower clause; compare, for example, (19) and a parallel construction with an implicative object control predicate and a matrix direct object (20).

(20) Petja   zastavil pjat'   malčikov   ostat'sja.

Petja.NOM forced   five.ACC boys.ACC   stay.INF

'There are five boys such that Petja forced them to stay.' (wide scope)

Not available: 'Petja forced someone that there be five boys who stay.' (narrow scope)

This ambiguity has also been reported by Minor (2013); however, he focuses primarily on the availability of a narrow-scope reading and does not mention the fact that narrow-scope and wide-scope interpretations, as described in the present paper, are normally mutually exclusive.

4   The analysis: verbs of communication embedding modals

4.1   Outline of the analysis

The most straightforward structural representations for sentences with overt embedded subjects (21) are given in (22).[12]

(21) a. Direktor   prikazal   projektu   zakončit'sja k   martu.

director.NOM ordered   project.DAT   complete.INF by   March

'The director ordered for the project to be complete by March.'

b. Nado   projektu   zakončit'sja k   martu.

necessary   project.DAT   complete.INF by   March

'It is necessary for the project to complete by March.'

(22) a. [$_{vP}$ Subject [$_{v'}$ v^0 [$_{VP}$ mandative [$_{CP}$ [$_{DP}$ Subject$_{DAT}$] infinitive]]]

b. [$_{ModP}$ modal [$_{CP}$ [$_{DP}$ Subject$_{DAT}$] infinitive]]

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12 In line with previous analyses (Williams 1987, Lasnik 1998, a.o.) I consider embedded non-finite clauses to be CPs; support for this comes from the availability of embedded *-to* topics (i).

(i) a. Petja   velel   Maše   [projekt-to   ran'še   zakončit']?
Petja.NOM ordered   Maša.DAT   project.ACC-TO earlier   complete.INF
'As for the project, did Petja order Maša to complete it earlier?'

b. Tebe   nado   [projekt-to   ran'še   zakončit']?
you.DAT   necessary project.ACC-TO earlier   complete.INF
'As for the project, is it important / necessary for you to complete it earlier?'

c. Petja   razrešil   v sredu-to   projektu   zakončit'sja?
Petja.NOM allowed   on W.-TO   project.DAT   complet.INF
'As for (this) Wednesday, did Petja allow for the project to be complete by then?'

d. Možno   v sredu-to projektu   zakončit'sja?
allowed   on W.-TO project.DAT   complete.INF
'As for (this) Wednesday, is it allowed for the project to be complete by then?'

Following Dyakonova (2009), Scott (2012), a.o., I assume that contrastive *-to* topics are located in Spec,CP: they must be placed higher than other constituents at the left periphery, as they can only scramble with *wh*-words, but not with other kinds of topic / focus. Thus, despite the fact that argumental infinitival constituents, in general, cannot be accompanied by an overt complementizer and it is hard to (dis)prove the presence of an embedded C head, the examples in (i) suggest that these clauses are CPs.

The structure in (22a) resembles the ones proposed for English mandatives by Barrie and Pittman (2010) and for Russian 'speech act verbs' by Minor (2013), see (23) and (24) respectively.

(23) Barrie and Pittman's (2010) structure for English mandatives

Ivan [$_{vP}$ [$_{DP}$ the floor] ordered [$_{XP}$ *mandee*] [$_{IP}$ ~~the floor~~ to be swept]]

(24) Minor's (2013) structure for Russian speech act verbs

[$_{vP}$ the doctor v [$_{VP}$ advised{uθ [$_{TP}$ someone{iD to get medicine]]]][13]

Recall, however, that these analyses cannot fully capture the Russian data under discussion, as they appear to be too restrictive, failing to accommodate obligatory control cases and sentences with a matrix Holder independent from the embedded subject. In addition to this, Minor's (2013) account erroneously leaves aside sentences with overt subjects of embedded infinitives not bound by a restrictor (that is, referential non-quantified DPs).

To account for the two puzzles, namely, the dual nature of mandative verbs and deontic modals and their distributional similarity, I propose a novel analysis in terms of structural decomposition.

I consider mandative verbs a sub-class of 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 (25).

(25) 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

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13 Minor (2013) claims that the dative DP, even though generated within the embedded clause, still must comply with the selectional restriction of a matrix mandative predicate and be potentially suitable as the matrix obligation holder (normally animate and volitional); hence, he denotes a matrix predicate as carrying an unvalued theta-feature to be checked by a lower suitable DP (marked with iD).

14 An alternative approach to ditransitive predicates is the Small Clause analysis (Hale and Keyser 2002; Harley 2003; Den Dikken 2006, a.o.). 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 an embedded subject (i).

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

in (26), 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.

(26) $[_{vP}$ Subject $[_{v'}$ v^0 $[_{VP}$ SAY $[_{ApplP}$ $[_{DP}$ Goal$_{DAT}][_{Appl'}$ Appl^0 $[_{CP}$ … $]]]]]]$

Under the assumption that mandative verbs belong to the class of communication verbs, the structure in (26) accommodates cases of an embedded finite subjunctive clause together with an overt Holder, and those sentences with an embedded non-finite clause that exhibit obligatory control properties.

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 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 (27).

(27)
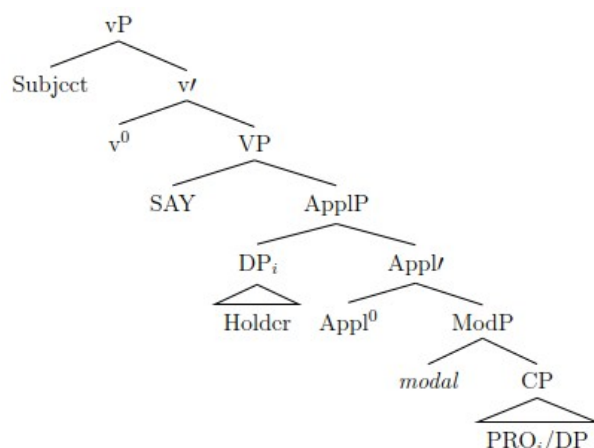
As for now, I refrain from entering into a detailed discussion of verbs of communication in Russian in general, and I consider both analyses viable. For the sake of simplicity, in this paper I adopt an applicative analysis and Pylkkänen's basic semantics and denote the functional head that relates an Addressee / Obligation holder and an embedded clause as Appl.

I further argue that the silent modal in (27) belongs to the class of deontic modal predicates. The structure for the latter is given in (28).[15]

(28)   [$_{ApplP}$ [$_{DP}$ obligation Holder] [$_{Appl'}$ Appl^0 [$_{ModP}$ deontic modal [$_{CP}$ ...]]]]

As mentioned in Section 2, I consider deontic modals to be lexical heads that require a single argument 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), a.o. This assumption concurs with a cross-linguistic trend for modal adjectives to behave as unaccusative predicates (Cinque 1990, a.o.); 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: (i) visibility to instrumental depictives (29a), (ii) control into rationale clauses (29a) and active gerundial constructions (29b), (iii) binding into subject oriented modifiers, such as *sam po sebe* 'himself, on his own' and *na udivlenije drug druga* 'to each other's surprise' (30).[17]

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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   medsestre$_i$ [PRO$_i$ 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, a.o.), 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.
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.

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

(29) a. [Čtoby ne zlit' otca], pjanym$_i$ Pete$_i$ nel'zja, čtoby Anna ostavalas'.

so that NEG anger.INF father.ACC drunk.INS Petja.DAT not.allowed so that Anna.NOM stay.INF

'So as not to make the father angry, when Petja is drunk, it is not allowed for him for Anna to stay.'

b. Uxodja iz doma, Pete 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 hime for Anna to stay.'

(30) [Na udivlenije drug druga$_i$] detjam$_i$ nužno, čtoby Anna ostalas'.

on surprise each other children.DAT necessary so that Anna.NOM stay.INF

'To each other's surprise, it is necessary for the children for Anna to stay.'

The proposed decomposition analysis explains the distributional similarities between mandative verbs and deontic modal / evaluative predicatives, including the obligatory control vs. overt embedded subject ambiguity. Recall that the structure in (26) leaves aside examples with an overt referential embedded subject; I argue that the availability of an embedded non-finite clause with a covert / overt subject is directly related to the structural presence of a silent deontic modal. In the next section I will provide 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 a decomposition analysis presented in this paper. The first is the possibility of ambiguous interpretations of examples with a sentential negation.

Let us first take a look at mandative and modal predicates in general. The fact that universal 'must'-type predicates can scope below or above the matrix negation has been widely discussed in the literature, including von Fintel and Iatridou (2007), Iatridou and Zeijlstra (2013), a.o.; in turn, existential predicates denoting permission typically scope below the matrix negation and do not

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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.

allow ambiguous interpretations (Iatridou and Zeijlstra 2013). The contrast is illustrated in (31) with the Russian modal predicates (*byt'*) *dolžen* 'must' (universal) and *mоč'* 'can' (existential).

(31) a. Ivan   ne   dolžen   delat'   zadanie.

     Ivan.NOM   NEG   must   do.INF   task.ACC

     (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 (32a), which involves the mandative verb of permission *razrešit'* 'permit', and its potential interpretations (given here in periphrastic sentences and marked as available / unavailable).

(32) a. 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.'

   b. Available: 'According to the director, it is not possible for the party to continue till midnight.' NEG > CAN

   c. Not available: 'According to the director, it is possible for the party to be over earlier than midnight.'   *CAN > NEG

   d. Available: 'The director did not say that it is possible for the party to continue till midnight.'   NEG > SAY

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 (a) to be interpreted as (b), and for the reading (c) to be unavailable (true to the facts); however, nothing predicts the availability of the reading (d).

If the communication (SAY) and the modal components are separated, there are three potential positions for the negation to be interpreted: (i) under SAY and the modal (reading c; unavailable as existential modals cannot outscope negation), (ii) between SAY and the modal (reading b), and (iii) above SAY and the modal (reading d). Thus, the decomposition analysis proposed in this paper yields a straightforward explanation for the interpretations in (32).

Second, predicates denoting information transfer can be 'transformed' into mandative verbs, at least in colloquial Russian. Consider verbs in (33a): 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 (33b) and (33c), 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.

(33) 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 that Maša should 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 that Maša should leave.'

The contrast between (33a) and (33b, 33c) 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.[18] This 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.[19]

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

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18 The connection between root modality and subjunctive mood has been thoroughly studied for many Indo-European languages, including, for instance, Romance (Panzeri 2002, a.o.); this pairing is often compared to that of epistemic modality and indicative mood (attested, again, in French and Spanish, a.o.). 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.

19 In addition to this, the proposed analysis helps to account for the difference between mandative predicates and deontic modals, on the one hand, and ordinary object control verbs such as the implicatives *zastavit'* 'force' and *ubedit'* 'compel', on the other hand (see the discussion in Section 3). As has been suggested by a reviewer, implicative verbs do not necessarily involve an act of direct communication, thus, the proposed decomposition analysis is not applicable to them. Furthermore, these predicates do not entail deontic modality, and should rather be considered causative verbs; for a detailed discussion and an analysis along this line I refer the reader to Landau (2015).

2006; Jung 2009; Tsedryk 2017, a.o.). Although on the surface root infinitives look like non-finite clauses with a dative DP 'subject' (34), they should be analyzed as biclausal constructions with a silent matrix modal element, as was persuasively demonstrated by Fleisher (2006).[20]

(34) 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 (34), one might ask if sentences with a matrix mandative predicate embed a 'root infitive type' direct speech. In other words, could (a) be parallel to (b) in (35)?

(35) 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 (35a) as a structural equivalent to (35b). 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 (35a) and (35b)). 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 (35b).

    In the next subsection I will go through all the kinds of constructions with a matrix mandative verb attested in Russian and propose for them the structural representations based on the structure in (27).

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20 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); see, however, Moore and Perlmutter (2000) and Tsedryk (2017) advocating monoclausal analyses.

4.3 Structural representations

4.3.1 Embedded finite clauses and eventive DPs

The analysis for sentences with a matrix mandative verb and a finite clause is straightforward: the proposition is selected by a silent deontic modal and the whole modal constituent is embedded under a verb of communication (SAY); this is illustrated in (36) and (37).

(36) Maša   velela   (Anne)   [čtoby   ona   pomyla   posudu].

Maša.NOM   ordered Anna.DAT so that she.NOM wash.SUBJ   dishes.ACC

'Maša ordered Anna to wash the dishes.'

Literally: 'Maša ordered Anna so that she washed the dishes.'

(37)
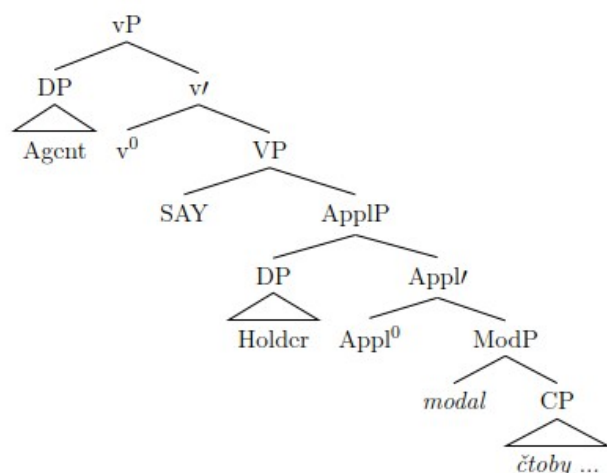
4.3.2 Embedded non-finite clauses. Control configuration

A structure similar to in (27) is also applicable to sentences with a mandative predicate embedding a non-finite clause with a controlled PRO subject (38 and 39).

(38) Maša   velela Anne$_i$ [PRO$_i$ pomyt'   vmeste   posudu].

Maša.NOM   ordered Anna.DAT   wash.INF   together   dishes.ACC

'Maša ordered Anna to wash the dishes together.'

(39)
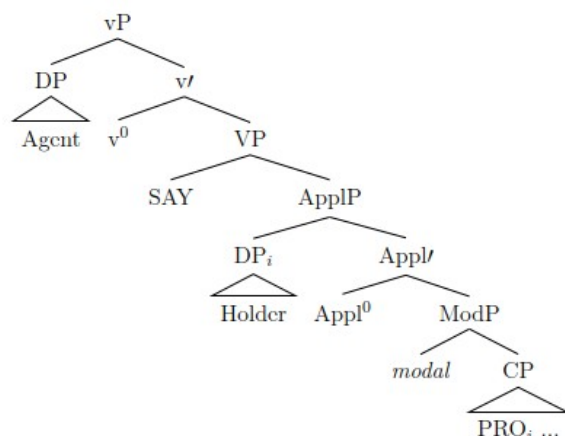
Note that, as in the case of a matrix deontic modal, a Holder can be implicit, a φP (see Landau 2010),[21] still controlling PRO within the lower non-finite clause (40).

(40) 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.'

Obligatory control between the two covert elements becomes evident when the implicit Holder refers to a specified being. Compare the basic sentence in (41a) with the test sentence in (41b): within the given context (41a), 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 (41b) 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 (41b) the silent Holder and the silent embedded subject must refer to the same group of people – only the bosses or only the employees.

(41) a. Načal'nikam nado,   čtoby   sotrudniki   rabotali   kak možno bol'še.

       bosses.DAT   necessary   so that   employees.NOM work.SUBJ   as much as possible

---

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.

'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.'

Based on these data I argue that an implicit Holder, similarly to an explicit one, is syntactically present and obligatorily controls a covert embedded subject.[22]

4.3.3 Embedded non-finite clauses with lexical subjects

Another option that appears when the Holder is covert is to embed a non-finite clause with an overt subject (42); the structure is given in (43).

(42) 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.'

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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. As discussed in this paper, 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.   *Samim po sebe   nado   spasat'   pand.
         ourselves / themselves   necessary   save.INF   pandas.ACC
         Intended: 'It is necessary for ourselves to save pandas.'

   b.   *Pjanymi   neobxodimo   vernut'sja   domoj   kak možno ran'še.
         drunk.INS   necessary   return.INF   home   as soon as possible
         Intended: '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.

(43)
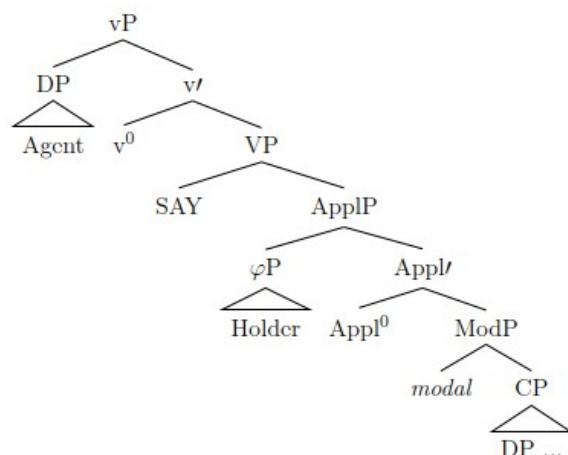
The analysis accounts for the overt embedded subject vs. control ambiguity, including diverging interpretations of examples with an embedded passive construction (12) and quantified expressions (19).

4.3.4 DP / PRO alternation

As argued in this paper, in Russian, mandative verbs and deontic modals can embed non-finite clauses with overt / covert 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), a.o., 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 (44), 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 (44) 'tomorrow' cannot modify the matrix predicates in past tense).

(44) 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 The DP / PRO alternation

5.1 *Regulating the alternation*

Based on the structure in (27) 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 (45), even though there is no general restriction ruling out co-occurrence of two dative DPs next to each other within one sentence in Russian (46).

(45) 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.'

(46) 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 (47).

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

I propose to account for this generalization in terms of Case licensing and cross-clausal Case assignment. 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 incapable of assigning Case;[23] however, in sentences with a matrix

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23 The proposed analysis is based on the idea of the defective non-finite T / C. It has been argued, however, that in Russian a 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, a.o.).

(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).

However, 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

mandative / deontic modal predicate licensing can be done by a matrix applicative head, which introduces and (normally) licenses a Holder. Therefore, an embedded referential subject ends up competing with an overt matrix Holder for the Case licensed by a matrix Appl.[24] The two DP / PRO options are the following: if the matrix Holder is an overt DP, it must check Case with $Appl^0$; if the Holder is implicit, a DP-less φP that does not require Case to be licensed, an overt embedded subject can match the feature and the derivation survives.

The correlation between the availability of an overt subject in the embedded non-finite clause and the presence of a matrix Appl manifests itself in other cases as well, including sentences with a matrix epistemic modal and main clause infinitives. In the rest of this subsection, I would like to briefly discuss these constructions sketching an analysis.

First, adjectival epistemic modals, such as *vozmožno* 'possible', *verojatno* 'probable', can embed a non-finite clause but prohibit a matrix Holder (48).

(48) (*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 further shown in (49), overt referential subjects are also unavailable in non-finite clauses embedded under such a predicate.

(49) *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

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between *odin* and *sam* in (i)). Crucially for the present discussion, ordinary secondary predicates, which in simple 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.'

Following Grebenyova (2005) and Franks (2014), I assume that the difference between secondary predicates 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 subject Case in non-finite clauses.

24 I assume that multiple Case assignment is unavailable in Russian. Despite the fact that in some languages a single Case feature can arguably be checked by several nominals at the same time (see, for instance, Scandinavian double object constructions where both the Goal and the Theme are, arguably, accusative), to the best of my knowledge, no support for multiple Case assignment can be found in Russian.

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.

Second, the main clause infinitives should be considered (Moore and Perlmutter (2000), Fleisher (2006), Jung (2009), Tsedryk (2017), and references therein). As illustrated in (50), a non-finite clause combines with a dative DP with the help of the BE copula (covert in present tense); semantically, their interpretations involve root existential modality ('can', 'may').

(50) 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. 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 (51).

(51) ?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, both constructions show positive results for the diagnostics for an overt embedded subject, such as the idiom chunk and non-sentience tests (52); see Jung (2009) advocating a raising analysis.

(52) 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 these constructions is beyond the limits of this paper, and, for the present discussion, it suffices to conclude that they allow 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 (53).

(53) *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), a.o., I suggest the following (simplified) structural representations for main clause infinitives (54a). I argue that the traditional descriptions should be further 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 (54b).

(54) a. $[_{ApplP}$ DP$_{DAT}$ $[_{Appl'}$ Appl^0 $[_{CP}$ PRO infinitive]]]

b. $[_{ApplP}$ φP $[_{Appl'}$ Appl^0 $[_{CP}$ PRO 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.

Returning to the proposed Case licensing analysis, I argue that Case assignment happens by establishing a long-distance cross-clausal A-dependency between Appl and the embedded subject, 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 (see Wurmbrand (2018) for a discussion of cross-clausal A-dependencies across the world's languages).

5.2   The distance of Case licensing

5.2.1   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;[25] support for this comes from the distribution of indefinite

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25 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.

non-specific *-nibud'* pronouns, the licensing of negative concord items (NCIs), and the positioning of adjuncts. In what follows I will consider these phenomena one by one, extending the discussion in Minor (2013). Minor's arguments for the dative DP staying within its clause are persuasive, even though his final claim that, in the case of a matrix mandative verb, the dative DP is restricted and is always thematically related to the main predicate is undermined by the data presented in the previous sections of this paper.

5.2.1.1 The distribution of indefinite pronouns

A first piece of support for the 'embedded subject' analysis comes from the behavior of Russian indefinite non-specific pronouns derived with the *-nibud'* suffix. I follow Haspelmath (1997) and Yanovich (2005) who propose that a quantifier over any natural-language type is required to license *-nibud'* pronouns; consider, for instance, the contrast between the examples in (55a,c) and (55b,d). In affirmative sentences with a mandative verb / deontic modal *-nibud'* pronouns are typically illicit in the matrix clause, yet they are allowed within the embedded clause where they scope under an intensional operator introduced by the matrix predicate (55).

(55) a. Koroleva   velela   Ivanu   pozvat'   kogo-nibud'.
       queen.NOM   ordered Ivan.DAT call.INF   someone.ACC
       'The queen ordered Ivan to call someone.'

   b. *Kto-nibud' velel   Ivanu   pozvat'   korolevu.
       someone.NOM ordered Ivan.DAT call.INF   queen.ACC
       Intended: 'Someone ordered Ivan to call the queen.'

   c. Nado /   možno pojti   kuda-nibud'
       necessary   allowed go.INF   somewhere
       'It is necessary / allowed to go somewhere.'

   d. *Nado /   možno dlja   kogo-nibud' pojti v   kino.
       necessary   allowed for   someone.GEN go.INF into cinema
       Intended: 'For someone it is necessary / allowed to go to the cinema.'

Crucially for the present discussion, a *-nibud'* pronoun is grammatical as a DP$_{DAT}$ (56), which suggests that, in these cases, the pronoun is merged and licensed within the embedded clause (i.e. the scope of an operator): in (55b, 55d) and (56) there is no additional operator in the matrix clause that could interfere and license a *-nibud'* pronoun; yet, (56) are acceptable, while (55b, 55d) are not.

(56) a. Koroleva   velela   komu-nibud' pozvat' Ivana.

　　　 queen.NOM ordered   someone.DAT call.INF Ivan.ACC

　　　 'The queen ordered that there be someone who would call Ivan.'

　　 b. Nado /   možno   komu-nibud' pojti   v   kino.

　　　 necessary   allowed   someone.DAT go.INF   into   cinema

　　　 'It is necessary / allowed for someone to go to the cinema.'

5.2.1.2 The licensing of negative concord items

Second, 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 appear together with a clausemate negation; thus, an embedded negation cannot license an NCI located within the matrix clause (57).

(57) 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 (58)) when there is no matrix negation.

(58) 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 (58), 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.[26] Consider the contrast between the acceptable examples in

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26 It is almost impossible to demonstrate that an NCI licensed within its embedded clause cannot raise into an A-position in a matrix clause, as no cases of long-distance raising to subject / object have been reported in Russian.

(58) and the ungrammatical example in (59), which shows that an NCI seeking to be licensed by an embedded negation cannot occupy the matrix direct object position.

(59) *Ivan   vynudil nikogo   ne   prixodit'.

   Ivan.NOM   forced   nobody.ACC NEG   come.INF

   Intended: 'Ivan forced nobody to come.'

5.2.1.3 The positioning of adjuncts

Finally, 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) (60).

(60) 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 (61).

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 (i). Importantly, in these constructions two positions are available for negation: it can be high, scoping above the modal, or low, scoping above the lexical predicate (ib).

(ii) a. Ty   možeš   ne   sjest' kuricu.
       you.NOM   can.NPST.2.SG NEG   eat.INF chicken.ACC
       'You are able / allowed not to eat the chicken.'
    b. Ty   ne   možeš   ne   sjest'   kuricu.
       you.NOM   NEG   can.NPST.2.SG NEG   eat.INF   chicken.ACC
       'You are not able / allowed not to eat the chicken.'

The lower negation can license a negative concord item in the object / indirect object 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 (ii).

(ii) a. Ty   možeš   ne   est'   ničego.
       you.NOM   can.NPST.2.SG NEG   eat.INF   nothing.GEN
       'You are able / allowed not to eat anything.'
    b. *Nikto   možet   ne   est'   kuricu.
       nobody.NOM can.NPST.3.SG NEG   eat.INF   chicken.ACC
       Intended: 'Anybody is able / allowed not to eat the chicken.'

Despite the limitations of the argument, this behavior could still be considered supporting the claim that a negative concord item cannot undergo A-movement out of its local licensing domain.

(61) 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 (62), or an adverb / a temporal adjunct is positioned between a mandative / deontic modal predicate and a dative DP (63), the examples receive an ambiguous interpretation.

(62) 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.'

(63) 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.

5.2.2   *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 (64) (see Dyakonova (2009), Scott (2012), a.o., for a discussion of these left-periphery items).

(64) 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; 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 for 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, a.o.), and cross-clausal ECM in Turkish (Şener 2011).

To overcome the apparent violation of the Phase Impenetrability Condition (PIC)[27] and the locality restriction on Agree / Case matching 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, a.o.

The idea of cyclic Agree is straightforward: instead of postulating direct feature sharing between a matrix probe and an embedded goal, we divide this process into smaller steps identifying intermediate probes / goals. In the case of Russian, the embedded C is such an 'intermediary'. Case feature sharing proceeds as follows: the matrix Appl establishes a probe-goal relation with the embedded C which, in turn, allows the embedded DP to check [uCase] with the C (schematized in (65) for deontic modals).

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

(65)
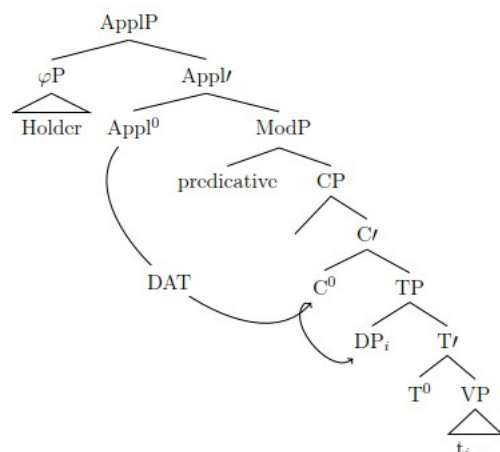
I assume that non-finite C can participate in Agree having φ-features; see a similar idea put forward in Landau's (2004, 2006) work and van Urk's (2015) proposal, based on data from Dinka, that C exhibits both A-bar and A properties.

6 Concluding remarks

In this paper, I 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 two puzzles, 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. Although the proposed analysis is initially data-driven, I believe that its central idea of decomposition can be successfully applied to other languages. Furthermore, the data under consideration open the door to further investigation of functional vs. lexical and overt vs. covert modal items.

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 Obligation Holder in the matrix clause.

I argued that the Case licensing approach (Chomsky 1981) comes closest to capturing the DP / PRO alternation. I proposed that, although DPs and PRO can be merged within the same syntactic environment, (Sundaresan and McFadden 2010), an overt DP subject of an embedded clause must be licensed by checking its [uCase] feature with a functional head. Although T 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, similarly to other known cases of cyclic Agree, is mediated by C (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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