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Mandative verbs and deontic modals in Russian: Between obligatory control and overt embedded subjects

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The paper presents and examines a previously undescribed puzzle concerning the syntactic distribution of Russian mandative verbs (*velet* ‘order’, *razrešit* ‘allow’) and non-verbal deontic modals: these predicates exhibit dual behavior as they embed non-finite clauses with either implicit obligatorily controlled (PRO) or overt referential (DP) subjects. The ambiguity holds for the same native speakers and no detectable difference in terms of the Tense – Agreement characteristics can be found between infinitival constituents with DP/PRO 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 the 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 AppI^0 , which normally introduces an obligation Holder; thus, matrix Holders and lexical embedded subjects end up competing to receive Case from the same functional head. Finally, I show that, as no true subject raising happens, Case assignment proceeds long-distance over a CP boundary.

Keywords: control; raising; Case; mandative verbs; deontic modals; Russian

1 Introduction

Starting from the first papers on non-finite complementation, the difference between obligatory control sentences with an embedded PRO subject, such as *Mary_i decided [PRO_i to write a report]*, and sentences with an overt lexical subject generated in the embedded clause, such as *Mary_i seems [t_i to have written the report]*, has been noticed (Chomsky 1965; Postal 1974; Rosenbaum 1974; Rooryck 1992, to name a few). Much work on the topic aims to determine the contexts where an obligatorily controlled PRO and overt embedded subjects are available, often arguing for the complementary distribution of the two kinds of items;¹ see multiple classifications for control vs. raising predicates in Wurmbrand (2001), Davies & Dubinsky (2004), and Jackendoff & Culicover (2006).

¹ An alternative for the PRO-based approach to control is the movement-based analysis developed by Hornstein (1999; 2001; 2003), Boeckx & Hornstein (2003), and Boeckx (2004). Many challenges for the Movement Theory of Control have been summarized by Landau (2007); see also Kiss (2004), Runner (2006), Bobaljik & Landau (2009), and Wood (2012) for detailed discussions. The problems include overgeneration and incompatibility with the 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.

The present paper examines Russian mandative verbs² (*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 (1985), Franks & 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 & Pittman (2010) and Minor (2013) propose that mandatives should be re-analyzed as subject-to-object raising verbs. The novel puzzle at the center of this paper is that Russian mandatives and deontic modals exhibit dual behavior: unlike ordinary object control verbs, for instance, implicatives *zastavit* ‘force’ and *vynudit* ‘compel’,³ the predicates under discussion can embed non-finite clauses both with covert (controlled, (1a) and (1b)) and overt (referential, (1c) and (1d)) subjects, thus allowing seemingly free DP/PRO alternation.

- (1) a. Maša velela **Anne_i** [**PRO_{i+}** sdelat’ vmeste zadanije].⁴
 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 zadanije].
 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
 ‘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) and controls the embedded PRO subject; despite the fact that the two items are partially coreferent, they are not identical, as suggested by the presence of the modifier *vmeste* ‘together’, which requires a semantically plural embedded 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. As I will show later in the paper, such overt

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

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

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

As demonstrated in this paper, implicatives do not pass raising tests and should be considered control predicates; the structure of such constructions is discussed in more detail in Section 5, where I follow Landau (2015) and adopt a predicative control analysis for such sentences.

⁴ All examples presented in the paper were elicited with 10 native speakers of Russian (25–35 y.o.).

embedded subjects do not move into a matrix A position staying relatively low within the embedded clause.

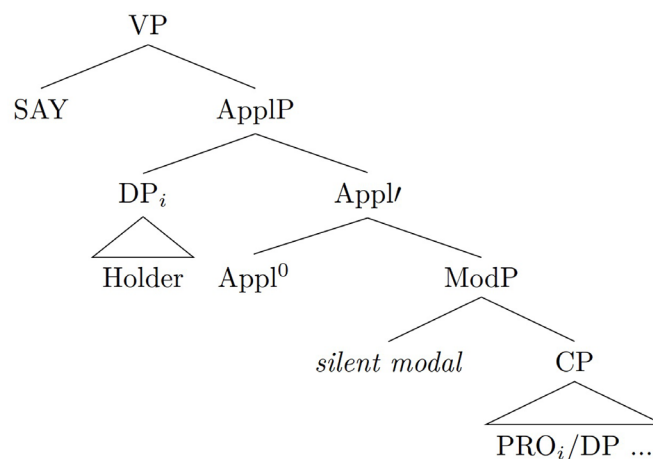
Focusing on the DP/PRO alternation, I will demonstrate that, on the one hand, it does not correlate with the structural size or the Tense – Agreement characteristics of the embedded non-finite clause (cf. Landau 2004; Bondaruk 2006; Pires 2007, i.a.). On the other hand, it is not entirely free either,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

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

Thus, the following questions arise: (i) What is the structure of sentences with mandatives and modals and why is their distribution so similar? and (ii) How is the DP/PRO alternation regulated? The existing approaches that classify predicates strictly as either control or raising/ECM⁵ cannot fully account for the data; instead, I develop a novel analysis that captures all the relevant properties of the constructions under discussion.

First, I propose that mandative verbs are overt realizations of a verb of communication that embeds a silent deontic modal; the latter, in turn, belongs to the class of ordinary modal predicates that select a propositional clause as an argument.⁶ Unlike in those approaches that place a modal component within the infinitival clause itself (Bhatt 1999; Pesetsky & Torrego 2001; Wurmbrand 2014), in this case the modal is a separate lexical head, although it remains covert. The ultimate structures are given in (3), where either PRO or a referential DP can occupy the subject position of the embedded non-finite clause.

- (3) a. *Mandative verbs*



⁵ In this paper, I am using the term “ECM” for purely classificatory purposes. 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 eventually propose that an embedded DP subject needs to be licensed by a matrix functional head.

⁶ Adopting the Distributed Morphology framework, I assume that lexical choice happens post-syntactically, presumably after movement of the deontic modal head to the communication head.

non-finite clauses with overt referential/PRO subjects. Section 4 presents the decomposition analysis, highlighting the similarities in the behavior of mandative verbs and deontic modals and providing additional support for the structural presence of a silent deontic modal head in constructions with a matrix mandative verb. Section 5 focuses on the reported DP/PRO alternation in embedded non-finite clauses and argues that it can be regulated in terms of Case-licensing. Section 6 concludes the paper.

2 Mandatives and deontic modals: General properties

Let us start by describing the syntactic distribution of Russian mandative verbs in comparison to that of deontic modals. Mandative verbs include the following: *razrešit'* 'allow', *pozvolit'* 'allow', *zapretit'* 'prohibit', *prikazat'* 'order', *velet'* 'order', *predpisat'* 'obligate', *poručit'* 'charge', *skazat'* 'tell', and their derived forms.⁷ 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'.⁸

Mandative verbs and deontic modals usually co-occur with a dative DP that often refers to an obligation/permission holder (Holder) and an embedded constituent denoting the event that should or should not happen. As illustrated in (5), the dative DP can be dropped;⁹ as further shown in (5b), deontic modals require a copula (silent in present tense), which, in the case of an embedded clause, always appears in the default N.SG form.

- (5) a. *Vrač velet (Maše) jest' ovošči.*
 doctor.NOM ordered Maša.DAT eat.INF vegetables
 'The doctor ordered Maša/someone to eat vegetables.'

⁷ The paper does not consider predicates that 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 verbs is *obeščat'* 'promise', which, on a par with its English translation equivalent, allows either the matrix subject or the matrix object to be coreferent with the understood subject of the embedded clause.

- (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), and Farrell (1993), to name a few; see an overview of the problem in Landau (2013).

⁸ Adjectival modals are morphologically identical to the N.SG forms of the semantically equivalent short adjectives and have similar syntactic distribution. Unlike long adjectives, short adjectives can only be used as primary predicates and cannot be marked for case.

- (i) a. *Soobščeniye bylo nužnoje / nužno.*
 message.N.SG.NOM was.N.SG necessary.LONG.N.SG.NOM necessary.SHORT.N.SG
 'The message was necessary.'
 b. *Prišlo nužnoje / *nužno soobščeniye.*
 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 from the corresponding short adjectives it is reasonable to analyze the two groups together. Note that not all deontic modals have corresponding adjectival counterparts; for instance, for *nado* 'necessary' there is no adjective (**nadyj*), while for *nužno* 'necessary' there is one (*nužnyj*). This remains to be accounted for by future research.

⁹ I follow Landau (2010) in assuming that silent Holders are structurally present weak implicit arguments, φPs; for argumentation, see Section 5 of this paper. As the research mainly focuses on constructions with overt dative DPs, I refer the reader to Bouchard (1982), Cinque (1988), Sag & Pollard (1991), Vanden Wyngaerd (1994), Jackendoff & Culicover (2003), Landau (2010; 2013) for a discussion of implicit Addressees, Holders, and other kinds of silent arguments.

- b. (Maše) bylo nužno jest' ovošči.
 Maša.DAT was.N.SG necessary eat.INF vegetables
 'For Maša/someone it was necessary to eat vegetables.'

Aside from a non-finite clause, mandative verbs and deontic modals can also embed finite subjunctive clauses.¹⁰

- (6) a. Maša velela Pete, čtoby Anna ostalas'.
 Maša.NOM ordered Petja.DAT so that Anna.NOM stay.SBJV
 '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.SBJV
 'For Petja it was necessary/allowed that Anna would stay.'

In sentences with a matrix mandative verb or 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 (7a) and (8a) where the relation between the DP_{DAT} and the subject complies with the c-command and locality requirements and cannot be established solely from a pragmatic perspective. Furthermore, as illustrated in (7b) and (8b), the embedded subject obligatorily behaves as a bound variable under ellipsis, which suggests that it is not a *pro*.

- (7) a. *Logophoric control and non-c-command control fail*
 Ivan_k skazal, čto Petja velel [druzjam Maši_j]_i pojti
 Ivan.NOM said that Petja.NOM ordered friends.DAT Maša.GEN go.INF
 odnim_i / *odnoj_j / *odnomu_k.
 alone.PL alone.F alone.M
 'Ivan said that Petja had ordered Maša's friends to go alone.'
- b. *No strict reading under ellipsis*
 Učitel' velel Maše ujti, i direktor Ivanu
 teacher.NOM ordered Maša.DAT leave.INF and director.NOM Ivan.DAT
 tože.
 too
 'The teacher ordered Maša to leave and the director ordered Ivan to leave.'
 Not available: '... the director ordered Ivan for Maša to leave.'
- (8) a. Ivan_k skazal, čto [druzjam Maši_j]_i nužno / možno pojti
 Ivan.NOM said that friends.DAT Maša.GEN necessary allowed go.INF
 odnim_i / *odnoj_j / *odnomu_k.
 alone.PL alone.F alone.M
 'Ivan said that for Maša's friends it is necessary/allowed to go alone.'
- b. Maše nužno / možno ujti, i Ivanu tože.
 Maša.DAT necessary allowed leave.INF and Ivan.DAT too
 'For Maša it is necessary/allowed to leave and for Ivan it is
 necessary/allowed to leave.'
 Not available: '... for Ivan it is necessary/allowed for Maša to leave.'

The properties of mandative verbs and deontic modals discussed so far are summarized in Table 1.

¹⁰ This property distinguishes Russian deontic modals from modals found, for instance, in many Germanic languages that can only co-occur with a non-finite lexical predicate (Wurmbrand 1999; 2001).

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

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

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

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

3 Obligatory control vs. overt embedded subjects

3.1 The dative DP as a matrix Holder

There are contexts in which the dative DP that appears in sentences with a matrix mandative/deontic modal predicate 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 denoting the situation that should or should not happen; importantly, in the latter case the embedded subject and the dative DP do not have to be coreferent.¹¹

- (9) a. *Vrač velel medsestre, čtoby Maša jela ovošči.*
 doctor.NOM ordered nurse.DAT so that Maša.NOM eat.SBJV vegetables
 ‘The doctor ordered the nurse that Maša eat vegetables.’
- b. *Medsestre nel’zja, čtoby Maša jela ovošči.*
 nurse.DAT not.allowed so that Maša.NOM eat.SBJV vegetables
 ‘For the nurse it is not allowed that Maša eat vegetables.’

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

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

¹¹ In sentences similar to (9), the 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.

- b. Pete nužno / nado razojtis' ne pozže šesti.
 Petja.DAT necessary necessary disperse.INF NEG later six
 'For Petja it is necessary to disperse by six.'
- (11) a. Marina velela Anne pojti vmeste v kino.
 Marina.NOM ordered Anna.DAT go.INF together into cinema
 'Marina ordered Anna to go to the cinema together.'
- b. Marina znala, što Anne nado / možno pojti vmeste
 Marina.NOM knew that Anna.DAT necessary allowed go.INF together
 v kino.
 into cinema
 'Marina knew that for Anna it is necessary/allowed to go to the cinema together.'

I follow Wurmbrand (2002) in assuming that availability of partial coreference requires the presence of PRO and supports a control analysis for sentences with mandative verbs and deontic modal predicates.

3.2 The dative DP as the embedded subject

The DP_{DAT} in the sentences under consideration can also be base-generated within the lower clause receiving a thematic role from the embedded predicate; thus, it can be completely independent from the matrix verb. Evidence for this is found in the results for the idiom chunk, embedded passivization, and inanimacy tests.¹²

First, embedded under a mandative/deontic modal predicate, the idiom *černaja koška probežala meždu nimi*, literally translated as 'a black cat ran between them', can still retain its idiomatic interpretation (12a, 12b), which is possible only if 'a black cat' DP is base-generated as a part of the embedded collocation.¹³ In contrast, an idiomatic reading is not available in sentences with ordinary object control verbs, such as implicatives *zastavit'* 'force', *vynudit'* 'compel' (12c), which suggests that, in this case, 'a black cat' is thematically unrelated to the embedded predicate.

- (12) a. Ja ne velel černoj 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 them to quarrel.'
- b. Černoj 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 černuju 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.'

¹² Another commonly used diagnostic – insertion of an expletive pronoun – cannot be applied since there are no overt expletive pronouns in Russian. See Franks (1990), Perlmutter & Moore (2002), i.a., for a discussion of null expletives in Slavic languages.

¹³ Another idiom that can be used for this test is *jabloko padajet nedaleko ot jabloni* 'like father, like son', literally translated as 'an apple falls not far from an apple tree'.

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

Second, sentences with a matrix mandative verb or a deontic modal and an embedded passive construction can get the same interpretation as parallel sentences with an embedded active construction. Assuming that passivization of a predicate does not result in a truth-conditional difference between the active and the passive constructions, it follows that the DP_{DAT} is an argument of the embedded predicate. In the examples in (13a/b) and (13c/d) 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 pairs of sentences. However, it is also possible to interpret the sentences in the 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 predicates, while the matrix obligation holders remain implicit.

- (13) a. Direktor prikazal mal'čiku byt' ubitym Voldemortom.
 director.NOM ordered boy.DAT be.INF kill.PTCP Voldemort.INS
 (i) 'The director ordered the boy that he should be killed by Voldemort.' (\neq 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.' (\neq 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.' (\neq 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.' (\neq c)
 (ii) 'It is necessary that Voldemort kill the boy.' (= c)

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

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

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

- (15) a. Direktor razrešil večerinke prodolžat'sja do polunoči.
 director.NOM permitted party.DAT continue.INF until midnight
 'The director permitted that the party continue until midnight.'
- b. Nado stroitel'stvu zakončit'sja k martu.
 necessary construction.DAT complete.INF by March
 'It is necessary for the construction to be complete by March.'

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

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

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

3.3 Overt embedded subjects vs. controlled PRO

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

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. This dual behavior cannot be fully accounted for by the traditional control (Franks & Hornstein 1992; Babby 1998; Landau 2013) or more recent raising analyses (Barrie & Pittman 2010; Minor 2013).

For instance, Barrie & Pittman (2010) argue that English sentences with mandative verbs like *order* and *permit* always involve subject-to-object raising,¹⁴ although they only demonstrate that the DP under consideration is an argument of the embedded predicate and do not apply movement diagnostics. Such an approach would be too restrictive for Russian as it would leave aside sentences with an overt matrix Holder and partial control. Minor (2013) focuses on a similar class of verbs in Russian and argues that overt DPs can occupy the embedded subject position only in a small group of sentences with a matrix mandative predicate (a speech act verb, in his terms) and an embedded non-finite clause. He further claims that, in such cases, the DP does not pass the idiom chunk and embedded passivization tests and is obligatorily assigned two thematic roles, being related simultaneously to the matrix and to the embedded predicates. As has been demonstrated in this section, the DP/PRO alternation is found in a much larger number of contexts than reported by Minor.

In what follows I will consider the DP/PRO alternation in detail and account for it by an analysis in terms of Case licensing. Before that, however, it is necessary to present the general structural representation for sentences with mandatives and deontic modals. Considering various syntactic properties of sentences with a matrix mandative/deontic

Table 2: Overt embedded subjects vs. control diagnostics.

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

¹⁴ Barrie & Pittman (2010) support their claim with the results for the expletive (ia), idiom chunk (ib), and embedded passivization (ic) tests.

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

modal predicate, their syntactic distribution is almost identical. To the best of my knowledge, this fact has not been previously addressed in the literature; however, it is straightforwardly accounted for by the syntactic structure developed in this paper.

4 Analysis: Verbs of communication embedding modals

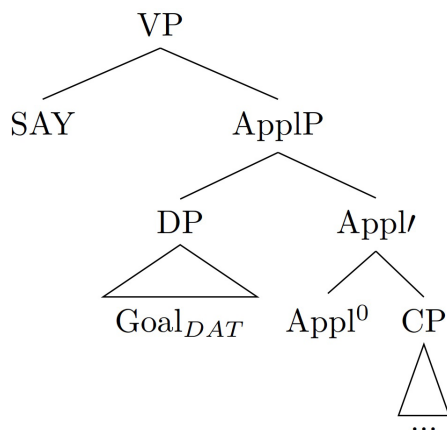
4.1 Outline

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

- (17) a. Maša velela Anne, čtoby ona pomyla posudu.
 Maša.NOM ordered Anna.DAT so that she.NOM wash.SBJV 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 Pyllkkänen’s (2008) low applicative approach (Dyakonova 2005 and Boneh & Nash 2017).¹⁵ The structure for these predicates is schematized in (18), where the matrix verb of communication (denoted here as SAY) takes as its complement an applicative phrase with an applied object – a Goal of communication.

(18) *Verbs of communication*



Under the assumption that mandative verbs belong to the class of communication verbs, the structure in (18) accommodates cases of an embedded finite subjunctive/non-finite clause together with a matrix DP_{DAT}. However, the following three questions remain to

¹⁵ An alternative approach to ditransitive predicates is the Small Clause analysis: the dative Goal is considered a PP predicate with a silent P head, while the transferred proposition is generated as the small clause subject (Hale & Keyser 2002; Harley 2003; Den Dikken 2006, i.a.). In case of verbs that embed a non-finite clause, the predication is reverse so that a dative Goal could control the embedded subject.

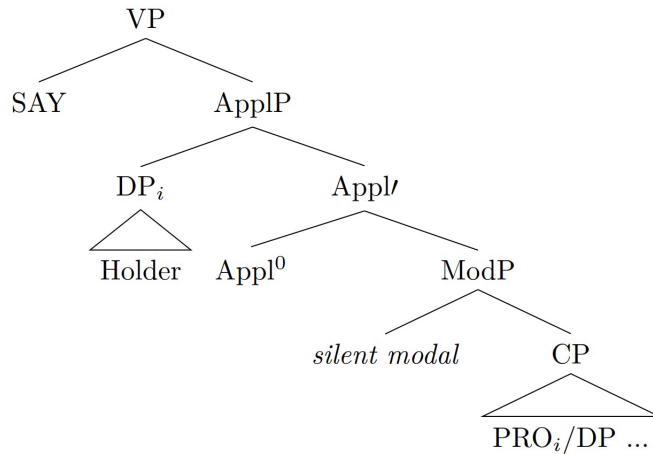
(i) [_{VP} Subject [_v v⁰ [_{VP} SAY [_{SC} [_{PP} P⁰ [_{DP} Goal_{DAT}]] [_R R⁰ [_{CP} ...]]]]]]

As for now, I refrain from entering into a detailed discussion of verbs of communication in Russian in general and I consider both analyses viable. For the sake of simplicity, in this paper I adopt an applicative analysis and Pyllkkänen’s basic semantics and represent the functional head that relates a Goal/Holder and an embedded clause as Appl⁰.

be answered: (i) What could explain the difference between ordinary verbs of communication and mandative predicates? In other words, what makes us interpret Goals as (obligation) Holders? (ii) Where does the striking similarity between the distributional properties of mandatives and deontic modals stem from? and (iii) How should sentences without an overt Holder and with an embedded non-finite clause with a lexical subject be accommodated?

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

(19) *Mandative verbs*



The silent modal in (19) belongs to the class of deontic modal predicates. The structure for the latter is given in (20).¹⁶

¹⁶ 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.

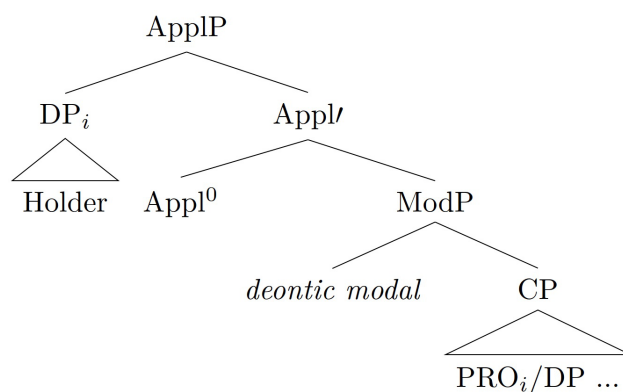
- (i) *Vrač skazal Pete medsestre_i [PRO_i dat' Maše lekarstvo].
 doctor.NOM said Petja.DAT nurse.DAT give.INF Maša.DAT medicine.ACC
 Intended: 'The doctor said to Petja that for the nurse it is necessary to give Maša the medicine.'

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 (Hoekstra 1984; Koopman 2014; Den Dikken & Dékány 2018; De Clercq & Vanden Wyngaerd 2019), however, its presence is further supported by the ungrammaticality of examples with multiple Beneficiaries, External Possessors, and dative Goals.

- (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 a Goal 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, što 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.'

(20) *Deontic modals*

I consider deontic modals to be lexical heads that require a single argument (a finite subjunctive clause or a non-finite clause with a DP/PRO subject) merged in the complement position; in this, I follow the discussion of adjectival predicates in Russian in Grashchenkov & Grashchenkova (2007), Geist (2010), Say (2013), and Borik (2014). This assumption concurs with a crosslinguistic trend for modal adjectives to behave as unaccusative predicates (Cinque 1990); 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* or *smart* in *It is sad/smart to do something*).¹⁷

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

- (21) a. Pjanym_i Pete_i nel'zja, čtoby Anna ostavalas'.
- drunk.INS Petja.DAT not.allowed so that Anna.NOM stay.INF
- 'When Petja is drunk it is not allowed for him for Anna to stay.'
- b. Petja_i udaril Ivana_j iz-za Borisa_k pjanym_{i/j/*k}.
- Petja.NOM hit Ivan.ACC because.of Boris.GEN drunk.INS
- 'When Petja was drunk he hit Ivan because of Boris.'
- 'When Ivan was drunk Petja hit him because of Boris.'
- Not available: 'When Boris was drunk Petja hit Ivan because of him.'

Second, Holders can control into active gerundial constructions (22a), which is also characteristic of arguments (22b).¹⁸

¹⁷ 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.

¹⁸ It might be suggested instead that Holders are merged as lower internal arguments in the Spec,ModP; for instance, a dyadic unaccusative approach has been adopted by Baker (2017) for verbal predicates with (only) two absolutive arguments in Burushaski. Note, however, that Baker primarily adopts this structural representation to account for the peculiar Case assignment/agreement pattern and offers little independent support, only mentioning that the subjects of all absolutive-absolutive verbs are nonagentive Experiencers/Possessors. As has been persuasively demonstrated by Pesetsky (1995) for several Indo-European languages, even among the predicates that assign Experiencer/other kinds of nonagentive thematic roles, genuinely dyadic unaccusative structures with two internal arguments are extremely rare; for instance, after examining a wide variety of experiencer predicates in English, he concludes that only a few should be analyzed as sharing such a structure: *appeal to*, *matter to*, *occur to*. With these considerations in mind, I keep to the high applicative analysis for constructions with a deontic modal.

- (22) a. ec_i uxodja iz doma, Pete_i nel'zja, čtoby Anna
 leaving from house Petja.DAT not.allowed so that Anna.NOM
 ostavalas'.
 stay.SBJV
 'When Petja leaves the house, it is not allowed for him for Anna to stay.'
- b. $ec_{i/*k}$ uxodja iz doma, Petja_i opazdyval iz-za Anny_k.
 leaving from house Petja.DAT was.late because.of Anna.GEN
 'When Petja was leaving the house, he was late because of Anna.'

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

4.2 Mandative verbs embed a deontic modal

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

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

- (23) a. Ivan ne dolžen delat' zadanije.
 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 mozet delat' zadanije.
 Ivan.NOM NEG can do.INF task.ACC
 (i) 'Ivan is not able to do the task.' NEG > CAN
 (ii) Not available: 'Ivan is able not to do the task.' *CAN > NEG

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

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

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

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

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

- (25) Direktor ne razrešal večerinke prodolžat’sja do polunoči.
 director.NOM NEG allowed party.DAT continue.INF till midnight
 Literally: ‘The director did not allow the party to continue till midnight.’
- Not available: ‘According to the director, it is possible for the party not to continue till midnight.’ *SAY > CAN > NEG
 - Available: ‘According to the director, it is not possible for the party to continue till midnight.’ SAY > NEG > CAN
 - Available: ‘The director did not say that it is possible for the party to continue till midnight.’ NEG > SAY > CAN

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

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

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

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

verb of communication which denotes a simple transfer of information usually encoded in an embedded indicative clause. Only when the constituent referring to this piece of information contains a deontic modal does a mandative interpretation appear and an embedded non-finite or finite subjunctive clause becomes available. The connection between deontic modality and subjunctive mood has been thoroughly studied for many Indo-European languages, including, for instance, Romance (Panzeri 2002); 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. This phenomenon does not prove that the modal head is present; however, the analysis proposed in this paper does provide a simple explanation for the similarity between various sub-classes of predicates which otherwise might be harder to achieve.

The claim that silent lexical modals are attested in Russian has been independently made to account for the behavior of so called root infinitives (Moore & Perlmutter 2000; Fleisher 2006; Jung 2009; Tsedryk 2018). Although on the surface root infinitives look like non-finite clauses with a dative DP subject (27), they are biclausal constructions with a silent matrix modal element, as was persuasively demonstrated by Fleisher (2006). The sentences are discussed in more detail in Section 5.4.

- (27) a. Maše Ø [zavtra rano vstavat'].
 Maša.DAT necessary tomorrow early wake.up.INF
 'Maša should wake up early tomorrow.'
- b. Mašine Ø [zdes' ne projexat].
 car.DAT possible here NEG pass.INF
 'The car cannot pass here.'

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

- (28) a. Petja skazal Maše (*budet) rano vstavat'.
 Petja.NOM said Maša.DAT be.NPST 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.NPST early wake.up.INF
 'Petja said: "Maša should wake up early".'

At least three facts speak against analyzing (28a) as a structural equivalent to (28b). First, the prosody is different; in particular, direct speech is normally separated from the matrix part by a 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. 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; this is impossible in sentences similar to (28b).

5 The DP/PRO alternation

5.1 Existing approaches to DP/PRO alternation

As argued in this paper, Russian mandative verbs and deontic modals can embed non-finite clauses with covert/overt subjects. The 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 & McCloskey (1987), Bondaruk (2006) on Irish, and Sundaresan & McFadden (2009) on Dravidian languages. Many authors 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 – Agreement features (following Landau’s 2004 calculus of control); see, for instance, Pires (2007). Another potential way of analysis proposed by Bondaruk (2006) for Irish 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 & McFadden (2009) present and examine several cases of 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 or Tense; thus, unless we want to stipulate covert morphology in non-finite clauses with overt subjects, DP and PRO subjects are available within the same environment. Second, as demonstrated in (29), the time reference of all non-finite constituents embedded under a mandative verb or a deontic modal is determined in the same way as relative future (note that in (29) ‘tomorrow’ cannot modify the matrix predicates in past tense).

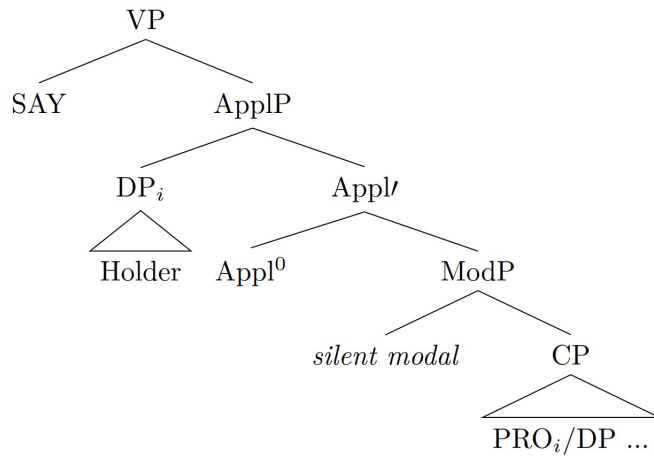
- (29) a. Petja velel Maše pojti zavtra vmeste v kino.
 Petja.NOM ordered Maša.DAT go.INF tomorrow together in cinema
 ‘Petja ordered Maša to go to the cinema together tomorrow.’
- b. Marine bylo možno pojti zavtra vmeste v kino.
 Marina.DAT was.N.SG allowed go.INF tomorrow together into cinema
 ‘For Marina it was allowed to go to the cinema together tomorrow.’
- c. Direktor velel projektu byt’ zakončennym zavtra.
 director.NOM ordered project.DAT be.INF finish.PTCP tomorrow
 ‘The director ordered for the project to be finished tomorrow.’
- d. Bylo neobxodimo projektu byt’ zakončennym zavtra.
 was.N.SG necessary project.DAT be.INF finish.PTCP tomorrow
 ‘It was necessary for the project to be finished tomorrow.’

Furthermore, the DP/PRO alternation in Russian is not entirely free, since the availability of an embedded lexical subject depends on the presence of an overt matrix Holder. This will be discussed in the next section.

5.2 Regulating the alternation

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

(30) *Mandative verbs*



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

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

- (32) a. *Maša velela Anne [projektu zakončit'sja k Martu].
 Maša.NOM ordered Anna.DAT project.DAT complete.INF by March
 Intended: 'Maša ordered Anna for the project to be complete by March.'
- b. *Anne nado [projektu zakončit'sja k Martu].
 Anna.DAT necessary project.DAT complete.INF by March
 Intended: 'For Anna it is necessary for the project to be complete by March.'
- (33) Maša velela Anne [Pete kupit' podarki].
 Maša.NOM ordered Anna.DAT Petja.DAT buy.INF presents
 'Maša ordered Anna to buy presents for Petja.' ('Petja' = an embedded beneficiary)

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

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

To account for the generalization we need to find a feature/property that will allow us to distinguish between PRO cases and DP cases and will be related to the presence of an overt matrix Holder. I propose that this feature is Case. I assume that, although DPs and PRO, in principle, can be merged within the same syntactic environment, the overt DP subject of an embedded clause must be Case licensed. A non-finite T⁰ is capable of assign-

ing only the Null Case unsuitable for overt DPs;¹⁹ however, in sentences with a matrix mandative/deontic modal predicate licensing can be done by the matrix applicative head, which introduces and (normally) licenses a Holder.²⁰ Therefore, the embedded referential subject ends up competing with an overt matrix Holder for the Case licensed by the matrix Appl.²¹ The two DP/PRO options are the following: if a matrix Holder is an overt DP, it

¹⁹ The proposed analysis is built upon the idea of the Null Case assigning non-finite T⁰/C⁰. It has been argued, however, that in Russian a proper structural subject case is assigned within non-finite clauses. Support for this claim usually comes from the availability of dative-marked embedded subject-oriented semi-predicatives (Comrie 1974; Greenberg 1985; Franks & Hornstein 1992; Babby 1998; Moore & Perlmutter 2000; Fleisher 2006; Landau 2008).

- (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 T⁰ or C⁰).

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

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

Madariaga (2006) proposes that semi-predicatives are QPs undergoing direct adjunction to PredP/VP; however, a similar analysis has been put forward for case concord secondary predicates by Bailyn (2001; 2002), who argues that they are APs/NPs adjuncts to the clausal spine. Thus, both kinds of modifiers are expected to behave in the same way with regard to case marking, contrary to the facts. Following Grebenyova (2008) and Franks (2014), I assume that the difference between secondary and semi-predicatives is unexpected under the assumption that they establish case concord with the embedded dative-marked PRO subject. Until we fully account for concord of semi-predicatives and non-verbal predicates, these data cannot be considered reliable evidence of the availability of a proper subject Case in non-finite clauses.

²⁰ The analysis relies on the idea that downward Head-Spec Case assignment is available in Russian together with the Spec-Head one. Within the minimalist theory, this discrepancy is well-known in languages where ECM-type phenomena are attested. Within a more recent Agree framework (Chomsky 2001 and elsewhere) where Case is considered to be one of the features to check the dual directionality can be accounted for by adopting a restricted hybrid approach. From a crosslinguistic perspective, support for downward Agree has been found in many languages; at the same time, as noted by Koopman (2006), Chomsky's original (2001) notion of Agree leaves a possibility for (a kind of) agreement to be triggered under Merge.

The distance of Case licensing in Russian is discussed in the next section.

²¹ I assume that multiple Case assignment to DP arguments is unavailable in Russian, although in some languages a single Case can arguably be assigned to several arguments at the same time (see, for instance, Scandinavian double object constructions where both the Goal and the Theme are accusative).

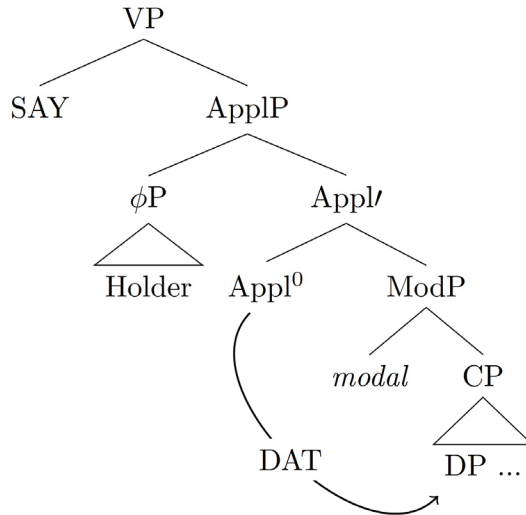
A mechanism of multiple "Case agreement" by a single functional head has been adopted by Bailyn (2001), Richardson (2001), and Madariaga (2006) to account for case concord in sentences with secondary predicates.

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

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

must receive Case from Appl⁰; if the Holder is implicit, a DP-less φP that does not require Case to be licensed, the overt embedded subject can get the Case and the derivation survives. The structural representation for such sentences is given in (35).

(35) *Licensing of overt embedded subjects*



Following Landau’s (2010) discussion of implicit arguments,²² I argue that the structural presence of an implicit φP Holder (and, consequently, the presence of Appl⁰) is supported by the fact that a silent Holder still controls PRO within the lower non-finite clause.

- (36) a. Maša velela ec_i [PRO_i spasat’ pand].
 Maša.NOM ordered save.INF pandas.ACC
 ‘Maša ordered to save pandas.’
- b. ec_i neobxodimo [PRO_i spasat’ pand].
 necessary save.INF pandas.ACC
 ‘It is necessary to save pandas.’

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

- (37) a. Načal’nikam nado, čtoby sotrudniki rabotali
 bosses.DAT necessary so that employees.NOM work.SBJV
 kak možno bol’še.
 as much as possible
 ‘For the bosses it is necessary that the employees work as much as possible.’
- b. Sotrudniki uznali, čto ec_i nado [ec_i rabatat’
 employees.NOM learned that necessary work.INF
 kak možno bol’še].
 as much as possible

(2008), Franks (2014); see, for instance, the idea of case agreement with a (local) DP available in parallel to agreement in number and gender put forward by Franks (2014).
²² The idea that pronouns come in different sizes can be traced back to Cardinaletti (1994) and Cardinaletti & Starke (1999). Other important works on the topic include Ritter (1995) and Noguchi (1997), to name a few; in particular, Déchaine & 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.

- (i) ‘The employees learned that for them it is necessary to work as much as possible.’
 (ii) ‘... that for the bosses it is necessary to work as much as possible.’
 Not available: ‘... that for the bosses it is necessary for them (the employees) to work as much as possible.’

Within the given context (37a), the bosses believe that the employees should work as much as possible, while the employees themselves may have a completely different opinion on the issue. Taking this into account and assuming that the reference of implicit Holders and covert embedded subjects is established independently, we would expect (37b) to be interpreted as ‘The employees have learned that to their bosses it is necessary that they (the employees) would work as much as possible’. This reading, however, turns out to be unavailable and in (37b) the silent Holder and the silent embedded subject must refer to the same group of people – only the bosses or only the employees. Based on these data I argue that an implicit Holder, similarly to an explicit one, is syntactically present in sentences with a covert embedded subject and, by extension, in sentences with an overt referential embedded subject.²³

The correlation between the availability of an overt subject in the embedded non-finite clause and the presence of a matrix Appl⁰ further manifests itself in sentences with a matrix epistemic modal, such as *vozmožno* ‘possible’, *verojatno* ‘probable’, which embeds a non-finite clause but prohibits a matrix Holder.

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

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

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

This can easily be 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 to license the embedded overt DP subject. Although the behav-

²³ Landau (2010) proposes to distinguish between strong and weak implicit arguments (IAs): the two kinds of entities are structurally different, as weak implicit arguments are deficient D-less ϕ Ps, yet all of them are syntactically projected and are potentially visible as controllers. Only strong IAs, but not weak IAs, are visible as subjects of predication and binders to Condition A. In Russian, overt matrix Holders can license instrumental secondary predicates and bind reflexives and reciprocals in subject-oriented modifiers; however, implicit Holders are incapable of doing so.

- (i) a. *(Nam_i) samim po sebe nado [PRO_i spasat’ pand]
 we.DAT ourselves/themselves necessary save.INF pandas.ACC
 Only: ‘It is necessary for us ourselves to save pandas.’
 b. Pjanyimi_i *(nam_i) neobxodimo [PRO_i vernut’sja domoj kak možno ran’she].
 drunk.INS we.DAT necessary return.INF home as soon as possible
 Only: ‘Drunk, it is important for us to return home as soon as possible.’

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

ior of epistemic modals does not necessarily prove that the proposed Case assignment analysis is the only viable approach, the fact that not only are dative Holders and overt embedded subjects each independently allowed to occur but they are also prevented from co-occurring simultaneously strengthens the connection between the two.

Returning to the proposed Case licensing analysis, I argue that Case assignment happens by establishing a long-distance cross-clausal A-dependency between Appl⁰ and the embedded subject (Wurmbrand 2019 for a discussion of cross-clausal A-dependencies across the world's languages), since the latter does not undergo raising to a matrix A position and stays relatively low within the embedded clause. Support for this is provided in the next subsection.

5.3 Distance of Case licensing

5.3.1 Against subject-to-object raising

5.3.1.1 Licensing of negative concord items

The dative DP interpreted as an argument of the embedded clause can stay within this clause and does not have to undergo A-movement,²⁴ as demonstrated by the behavior of negative concord items (NCIs) and the positioning of adjuncts.

First, licensing of negative concord items (*ni*- pronouns, NCIs) should be considered. In general, Russian NCIs are proper n-words, adopting the terminology coined in Laka (1990): they usually appear together with a clausemate negation. Thus, an embedded negation cannot license an NCI located within the matrix clause.

- (40) a. *Nikto velel Ivanu ne prixodit'.
 nobody.NOM ordered Ivan.DAT NEG come.INF
 Intended: 'Nobody ordered Ivan not to come.'
- b. *Dlja nikogo nužno ne prixodit'.
 for nobody.GEN necessary NEG come.INF
 Intended: 'For nobody it is necessary not to come.'

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

- (41) a. Ivan velel nikomu ne prixodit'.
 Ivan.NOM ordered nobody.DAT NEG come.INF
 'Ivan ordered that nobody would come.'
- b. Nado nikomu ne prixodit'.
 necessary nobody.DAT NEG come.INF
 'It is necessary that nobody come.'

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

²⁴ This does not imply that the embedded subject cannot move 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-subject/object raising and that the embedded subject does not have to end up in a matrix A-position.

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

It is not an easy task to demonstrate that an NCI licensed within an embedded clause cannot further move into an A-position in the matrix clause, as no cases of long-distance raising to subject/object have been reported in Russian. However, Stepanov (2007) argues that the modal verb *moč'* 'can, may', which can receive both epistemic and deontic interpretations, is a functional predicate in a monoclausal construction (cf. also Wurmbrand 2001 for an analysis of modal verbs in English in terms of functional restructuring). Importantly, in this construction two positions are available for negation: it can be high, scoping above the modal (43a), or low, scoping above the lexical predicate (43b).

- (43) a. Xoloda mogut ne isportit' posevy.
 cold.weather.PL.NOM can.NPST.3PL NEG damage.INF crops.ACC
 'It is possible for cold weather not to damage crops.'
- b. Xoloda ne mogut isportit' posevy.
 cold.weather.PL.NOM NEG can.NPST.3PL damage.INF crops.ACC
 'It is not possible for cold weather to damage crops.'

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

- (44) a. Xoloda mogut ne isportit' ničego.
 cold.weather.pl.NOM can.NPST.3PL NEG damage.INF nothing.GEN
 'It is possible for cold weather not to damage anything.'
- b. *Ničto možet ne isportit' posevy.
 nothing.NOM can.NPST.3SG NEG damage.INF crops.ACC
 Intended: 'It is possible for anything not to damage crops.'

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

5.3.1.2 Positioning of adjuncts

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

- (45) a. (včera) Maša (včera) pročitala (včera) etu knigu
 yesterday Maša.NOM yesterday read.PST yesterday this book.ACC
 (včera).
 yesterday
 'Maša read this book yesterday.'
- b. (ZAVTRA) Maša (*zavtra) zastavila (*zavtra) Petju
 tomorrow Maša.NOM tomorrow forced tomorrow Petja.ACC
 [(zavtra) poexat']
 tomorrow go.INF
 'Maša forced Petja to go there tomorrow.'

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

- (46) a. Maša velit projektu v ponedel'nik byt' zakončennym.
Maša.NOM order.NPST project.DAT on Monday be.INF finish.PTCP
'Maša will order that the project be finished on Monday.'
Not available: 'On Monday Maša will order that the project be finished.'
- b. Nužno / nado bylo rane ešče včera zažit'.
necessary necessary was.N.SG wound.DAT already yesterday heal.INF
'It was necessary that the wound would have healed already yesterday.'
Not available: 'Already yesterday it was necessary that the wound would heal.'

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

- (47) a. Maša velit Pete v ponedel'nik pomyt' posudu.
Maša.NOM order.NPST Petja.DAT on Monday wash.INF dishes
(i) 'Maša will order Petja to wash the dishes on Monday.'
(ii) 'On Monday Maša will order Petja to wash the dishes.'
- b. Nado bylo Pete včera zakončit' projekt.
necessary was.N.SG Petja.DAT yesterday finish.INF project.ACC
(i) 'Yesterday, for Petja it was necessary to finish the project.'
(ii) 'For Petja it was necessary to finish the project yesterday.'
- (48) a. Maša velit v ponedel'nik projektu byt' zakončennym.
Maša.NOM order.NPST on Monday project.DAT be.INF finish.PTCP
(i) 'Maša will order that the project be finished on Monday.'
(ii) '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 necessary that the wound would heal.'

Taking these data into account, I conclude that the dative DP base-generated within the embedded non-finite clause stays within its clause.

5.3.2 Long-distance Case licensing

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

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

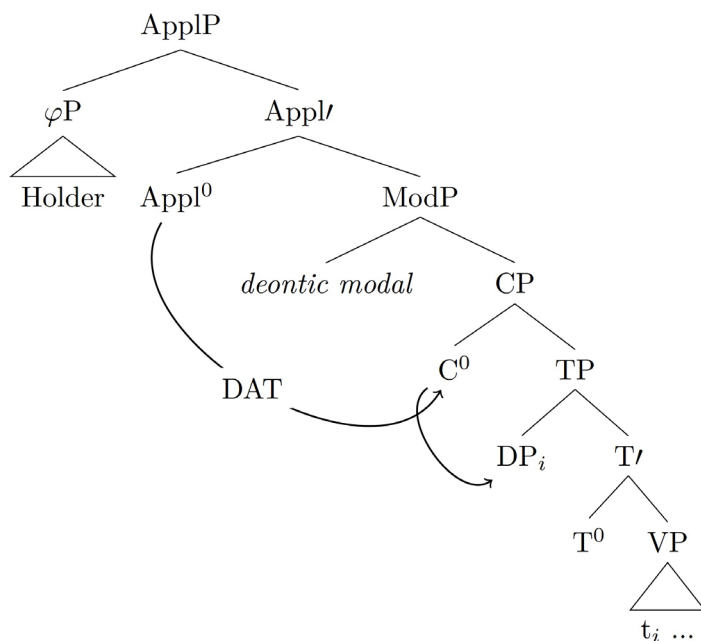
In such cases, the overt embedded subject can still get licensed by the matrix Appl⁰; to account for this I propose that long-distance Case assignment proceeds across the clausal

boundary. Cases of cross-clausal A-dependencies have been argued to exist in several other languages, including, for instance, hyper raising in Brazilian Portuguese (Ferreira 2009; Nunes 2009), long-distance agreement in Hindi-Urdu and Tsez (Mahajan 1990; Polinsky & Potsdam 2001; Chandra 2007), and cross-clausal ECM in Turkish (Şener 2011).

To overcome the apparent violation of the Phase Impenetrability Condition (PIC)²⁵ I assume that 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, Blackfoot, and several other languages.

The idea of cyclic Case assignment is straightforward: instead of postulating direct feature sharing between a matrix head and the embedded DP, we divide this process into smaller steps. In the case of Russian, the embedded C⁰ serves as an intermediary. Case assignment proceeds as follows: the matrix Appl⁰ establishes a relation with the embedded C⁰ which, in turn, allows the embedded DP to receive the required Case (as schematized in (50) for deontic modals).

(50) *Cyclic Case assignment to overt embedded subjects*



I assume that a non-finite C⁰ can participate in Case licensing; see similar ideas that C⁰ exhibits both A-bar and A properties put forward in Landau’s (2004; 2006) work and van Urk’s (2015) proposal, based on data from Dinka.

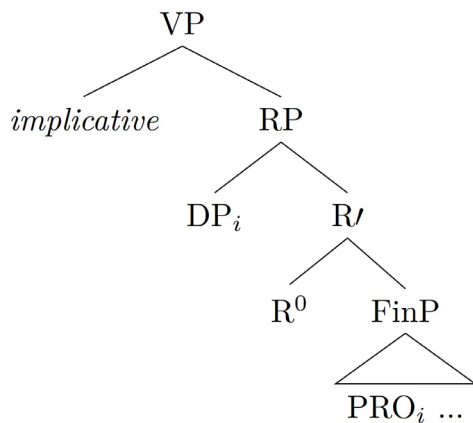
This assumption leaves open the following question: How could such an operation be restricted? One possible answer is that long-distance Case licensing is restricted by interfering factors unrelated to the status of C⁰. For example, under the proposed analysis, a free Case must be available for long-distance Case licensing to happen. Thus, if Case is always taken by a matrix argument that cannot be a φP, we expect it to be impossible for an overt embedded subject to get licensed. This is what happens in sentences with a matrix implicative verb, such as *zastavit* ‘force’, already mentioned in Section 3. Recall that sentences with a matrix implicative allow only obligatory control and prohibit overt embedded subjects.

²⁵ See Bobaljik & Wurmbrand (2005), Den Dikken (2007; 2012), and Bošković (2014) on phases as the highest projection of a cyclic domain – vP, CP.

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

Implicatives differ from mandates in that they do not necessarily involve an act of direct communication and do not entail deontic modality; thus, the proposed decompositional analysis is not applicable to them. Instead, I adopt Landau's (2015) account and assume that in sentences with a matrix implicative the embedded non-finite clause is predicated of the matrix controller, as schematized in (52) where RP stands for the Relator Phrase, i.e. a small clause (Den Dikken 2006).

- (52) *Clauses with a matrix implicative verb*



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

- (53) Direktor zastavil *(Mašu_i) [PRO_i ujti].
 director.NOM forced Maša.ACC leave.INF
 'The director forced Maša to leave.'

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

5.4 Expanding the data-set

In this section I will expand the data-set by presenting two constructions that allow a kind of DP/PRO alternation very similar to the one discussed in the paper, fall under the proposed generalization (an overt embedded subject is allowed only when there is no overt controller in the matrix clause, (34)), and can potentially be accounted for by a Case licensing analysis. The constructions include main clause infinitives in Russian and sentences with a matrix evaluative adjectival predicate in Hungarian. I will briefly discuss each of these cases, outlining some directions for future investigation.

5.4.1 Main clause infinitives in Russian

As mentioned in Section 4.2, in main clause infinitives a non-finite clause combines with a dative DP with the help of the copula (covert in present tense) (54); semantically, their interpretations involve root existential modality ('can', 'may').

- (54) a. Maše (budet) rano vstavat'.
 Maša.DAT be.NPST early wake.up.INF
 'Maša should/will have to wake up early.'
- b. Pete bylo ne rešit' ètu zadaču.
 Petja.DAT existed NEG solve.INF this task.ACC
 'Petja could not solve this task.'

There is an ongoing debate on whether a control relation is established between the dative DP and an embedded PRO subject or the overt embedded subject itself raises to a matrix position (Moore & Perlmutter 2000; Fleisher 2006; Jung 2009; Tsedryk 2018, and references therein). I argue that, just as in the case of matrix mandative/modal predicates, the two lines of argumentation should be reconciled to reveal the truth.

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

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

On the other hand, the construction shows positive results for the overt embedded subject diagnostics, such as the non-sentence test (56); see Jung (2009) advocating a raising analysis.

- (56) 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 the peculiar properties of this construction is beyond the limits of this paper, and, for the present discussion, it suffices to conclude that main clause infinitives allow the DP/PRO alternation in the embedded non-finite environment.

Furthermore, main clause infinitives fall under the proposed generalization (34): the matrix dative DP cannot co-occur with an overt embedded subject.

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

Building upon Fleisher (2006) and Tsedryk (2018), I suggest the following (simplified) structural representation for main clause infinitives.²⁶

- (58) *Main clause infinitives*

$$[_{AppIP} [_{DP}_{DAT}]_i [_{AppI'} AppI^0 [_{ModP} \textit{silent modal} [_{CP} PRO_i \textit{infinitive}]]]]]$$

I argue that the traditional descriptions should further be revised to account for the possibility, illustrated in (56), of an overt embedded subject being licensed by the higher functional head when the matrix participant is an implicit φ P, as schematized in (59).

²⁶ Fleisher's (2006) arguments for bi-clausality 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).

(59) *Licensing of overt embedded subjects in main clause infinitives*

$$[\text{AppIP } \phi P_i [\text{AppI}^0 [\text{ModP } \textit{silent modal} [\text{CP } \text{PRO}_i/\text{DP infinitive}]]]]$$

└──────────────────────────────────┘
DAT

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 straightforwardly captures the relevant properties noted by the two competitive lines of research.

5.4.2 *Evaluative adjectival predicates in Hungarian*

Cases of DP/PRO alternation restricted by the presence of an overt matrix controller similar to the one discussed in this paper can be found in languages other than Russian; consider, for instance, Hungarian sentences with a matrix evaluative adjectival predicate, such as *fontos* ‘important’ and *kellemetlen* ‘unpleasant’ (Tóth 2000; É. Kiss 2002; Rákosi 2006 for detailed discussions of these constructions). As illustrated in the examples below, these predicates usually embed a non-finite or a finite subjunctive clause and a dative (attitude) Holder (60). In case of a non-finite clause, the Holder obligatorily controls the embedded PRO.²⁷

(60) *Evaluative adjectival predicates with clausal arguments in Hungarian:*

- a. János-nak fontos / kellemetlen [megjelen-ni(-?e) az ünnepélyen].
 János-DAT important unpleasant appear-INF-3SG DET ceremony.at
 ‘It is important/unpleasant for János to appear at the ceremony.’
- b. János-nak fontos / kellemetlen (az), [hogy Kati későn érkezett].
 John-DAT important unpleasant (it) that Kate late arrived
 ‘It is important/unpleasant for John that Kate arrived late.’

Furthermore, the embedded subject position can also be occupied by an overt referential DP; for instance, in (61), which I elicited from native speakers, the inanimate dative DP *a szögnek* cannot refer to an Attitude Holder and is merged as an argument of the embedded predicate *kibújni*, which results in two interpretations including an idiomatic one.

(61) *Overt embedded subjects in infinitival clauses in Hungarian:*

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

Although further examination of the constructions is required, the availability of overt/covert subjects does not appear to correlate with the feature specification of an embedded non-finite clause.²⁸ I adopt Rákosi’s (2006) approach and analyze evaluative

²⁷ That the covert embedded subject is PRO becomes evident in sentences with ellipsis where only a bound variable reading is available.

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

²⁸ Rákosi (2006) claims that the subject of an infinitival clause is a dative DP when the infinitive is agreement-marked and that, in case of a non-agreement-marked infinitive, the subject position is occupied by PRO.

adjectives in Hungarian as predicates with one internal argument (usually, a proposition), while an external Attitude Holder is introduced in Spec,ApplP, in line with Pyłkkänen (2000); the structure, which is very similar to the one for Russian deontic modals, is schematized in (62).

(62) *Evaluative adjectival predicates with clausal arguments in Hungarian*

$$[_{\text{ApplP}} [_{\text{DP}}_{\text{DAT}}]_i [_{\text{Appl}} \text{Appl}^0 [_{\text{AdjP}} \text{Adj}^0 [_{\text{TP}} \text{PRO}_i/\text{DP} \dots]]]]$$

The subject position of an embedded non-finite clause can be occupied either by PRO or by an overt referential DP; furthermore, as demonstrated by Tóth (2000) and Rákosi (2006), the embedded subject can stay within a non-finite clause on its left periphery (the argumentation is omitted here due to limitations of space). Crucially, the Hungarian sentences under consideration comply with the generalization proposed for Russian (34): an overt (Attitude) Holder and an overt embedded subject cannot co-occur.

(63) *Clauses with an overt Holder and an overt embedded subject in Hungarian:*

- a. *János-nak kellemetlen [Péter-nek ilyet kér-ni(-e)].
 János-DAT unpleasant Péter-DAT such.ACC ask-INF-3SG
 Intended: ‘It is unpleasant for János for Péter to ask such a thing.’
- b. *János-nak fontos volt [a szög-nek ki-bújni(-a) a zsákból].
 János-DAT important was DET nail-DAT out-get-INF-3SG the bag.in
 Intended: ‘It was important for János for the truth to be revealed.’

I suggest that a Case licensing analysis similar to the one developed for Russian can account for the Hungarian puzzle as well: the Holder and the embedded subject get licensed by the same functional head, namely, the matrix Appl⁰. There remain many questions about particular properties of the Hungarian sentences that I have not touched upon in this brief discussion; further investigation of the parallels between Russian, Hungarian, and (potentially) other languages will contribute to the discussion of distribution and licensing of nominal elements.

6 Concluding remarks

This paper has focused on mandative verbs and deontic modals in Russian and presented 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/DP subjects.

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

As for the second puzzle, the reported DP/PRO alternation posits a challenge to the existing categorizations of clause-embedding predicates that attempt to place each verb either into the “overt embedded subject” group or the “control” group. I further demonstrated that the alternation does not correlate with the Tense – Agreement characteristics of embedded infinitival constructions. However, it is not completely free either, and the

However, the data need to be thoroughly revised. As shown in the examples presented in this section, which were elicited from native speakers of Hungarian, presence of an agreement marker is often judged as marginal regardless of whether the embedded subject is a DP or PRO.

availability of an embedded lexical subjects depends on the absence of an overt dative Holder in the matrix clause.

I argued that the Case licensing approach (Chomsky & Lasnik 1993) comes closest to capturing the DP/PRO alternation. On the one hand, DPs and PRO can be merged within the same syntactic environment but, on the other hand, an overt DP subject must be licensed by Case received from a functional head. Although T^0 in a non-finite construction is inherently deficient, in sentences with a matrix mandative/deontic modal predicate Case valuation can be done by the matrix applicative head, which introduces a Holder. Since lexical subjects of embedded infinitives can stay relatively low (arguably, in Spec,TP), I proposed that Case licensing is cyclic and is mediated by C^0 (Legate 2005). From an empirical point of view, the Russian data complement the other known cases of cross-clausal A-dependencies, as most of them are attested either in smaller non-phasal infinitives or in finite clauses with embedded agreement and an overt complementizer.

Abbreviations

ACC = accusative, DAT = dative, DET = determiner, F = feminine, GEN = genitive, INF = infinitive, INS = instrumental, LONG = long adjective, M = masculine, N = neuter, NEG = negation, NOM = nominative, NPST = non-past, PL = plural, PST = past, PTCP = participle, SG = singular, SHORT = short adjective, SBJV = subjunctive.

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Competing Interests

The author has no competing interests to declare.

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