

## Defective pronouns in the history of Russian: null subjects and object clitics

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**ABSTRACT**

In this paper, I present a unified account for the change in referential null subjects and accusative clitics in Russian. Clitics and null subjects are minimal defective pronouns. In Old Russian, long verb movement was the key for licensing these elements. The reorganization of the verbal system around aspectual distinctions by Middle Russian and the consequent loss of long verb movement modified this cue; null subjects became overtly realized, while object clitics disappeared altogether, and were replaced by null objects, free from any requirement of prosodic support. As for null subjects, learners were able to reanalyse the corresponding gaps as either (i) bound by null topics, or (ii) c-commanded by coreferent antecedents (“finite control”). Thus, Modern Russian started to qualify as a partial null subject language.

**KEYWORDS** object clitics, null subjects, Russian, diachronic change

### 1 INTRODUCTION

In this paper, I offer a formal account of the change in the system of null pronouns in Russian; more specifically, I present a unified account for the change in referential null subjects (NSs) and the loss of accusative clitics (DO-clitics) in Russian. In the course of history, referential NSs became much more restricted than they were before, a change usually characterized as a shift from a “consistent null subject” pattern into a “partial null subject” pattern, following Holmberg’s 2005 taxonomy. At the same time, pronominal clitics were lost in the language, while null objects became widely available.

The outline of the paper is as follows: in §2, I review the contexts in which referential NSs were legitimated in OR (§2.1), as well as account for the system of DO-clitics during this period (§2.2). Thereafter, I explain the existing mechanisms of licensing referential NSs in MR, specifying the available environments (§2.3). In §3, I propose a diachronic account for the change between the two systems. §4 is a conclusion.

### 2 MECHANISMS OF LICENSING REFERENTIAL NSS AND DO-CLITICS IN OLD RUSSIAN AND MODERN RUSSIAN

With regard to the nature of NSs, I build on the classic formal approach proposed by Holmberg (2005), and Holmberg et al. (2009); NSs are defective minimal  $\varphi$ Ps with unvalued interpretable  $\varphi$ -features ( $\varphi P_{[i\varphi; \_]}$ ). Depending on the type of language, i.e. on the value that parametrized T has in each specific language, the behavior of a NS subject will vary.<sup>1</sup>

<sup>1</sup>§2.1 and §2.3 are a concise summary of Madariaga (2022), in which I give additional arguments and examples, and provide syntactic evidence for the proposed structures.

## 2.1 REFERENTIAL NULL SUBJECTS IN OLD RUSSIAN

According to Holmberg et al. (2009), in consistent NS languages, T enters the derivation with an unvalued D-feature, which must be satisfied in the course of the derivation, usually matched by a full DP. Alternatively, a defective  $\varphi$ P (a NS) receives a referential interpretation by performing D-matching with T. In this case, some Topic at CP (null or overt) is responsible for identifying the  $\varphi$ P's reference (Frascarelli 2007); the referential index of a Topic at [Spec,CP] is copied by the unvalued D-feature of T, and, finally, through Agree, by the  $\varphi$ P (the NS), which at the same time matches the unvalued  $\varphi$ -features of T. The D-feature of T has no morphological expression of its own, and it is “spelled out” by spelling out the person and number features, resulting in rich verbal morphology.

- (1)  $[_{CP} \text{Topic}_i C [_{TP} \varphi P_i T_{D:-} [_{VP} V \dots]]]$

Old Russian (OR) is acknowledged to be a consistent NS language (Meyer 2011, Eckhoff & Meyer 2011, Madariaga 2018, 2022, Jung 2018; etc). Thus, I assume that NSs in OR had the structure in (1), and were licensed directly in the domain of T, where D-feature valuing takes place.

As for the specific conditions licensing referential NSs in OR, any kind of topical antecedent was able to endow a NS with the necessary referential index. As shown by Borkovskij (1978), Meyer (2011), and Eckhoff & Meyer (2011), pronominal non-emphatic, non-contrastive, non-focal NSs were freely licensed, regardless of the syntactic context (root or embedded), and the type of topic involved, whenever it was not contrastive. I will consider here two types of non-contrastive topics, following Frascarelli (2007):

(i) Given Topics, also known as Familiar Topics, part of the discourse common ground, shared by the speaker and the hearer. They are mentioned in the preceding discourse or in previous illocutionary acts (Krifka 2007), and can occur in the presence of certain informational features, such as logophoric or deictic (situational / contextual) features;

(ii) Aboutness-Shift Topics, similar to Sentence Topics (Reinhart 1981), reintroduce a topic in the discourse or shift to a new propositional content without losing or replacing information from the previous context. I will assume that these topics are licensed in a dedicated ShiftP by virtue of a special informational feature [+aboutness].

In OR, unlike in MR, these two types of topics behave essentially in the same way, i.e. license NSs. Let us first illustrate NSs tied to a Given Topic interpretation in second person (2). Then, three examples of NSs related to Sentential Topics are given for third person dual (3-a), and singular (3-a)(3-b).<sup>2</sup> As we will see later, OR and MR are not substantially different with regard to Given Topics, but they differ with respect to Sentence Topics in that they are overwhelmingly null in OR, whereas they are overt in MR (see §2.3):

- (2) (Olegъ) гька: kamo e danъ daete?  
 Oleg said who E tax pay.2PL  
 ‘Oleg asked: “Who do (you) pay the tax?”’ (8v, p. 24)
- (3) a. Levъ<sub>i</sub> vьskorě posla ja<sub>j</sub>. I e<sub>j</sub> pridosta ko c(a)r(e)vi.  
 Lev quickly sent.3SG them.CL.ACC.DU and E came.3DU to tsar

<sup>2</sup>The change under study here was finalized between Early Middle Russian and Late Middle Russian (by the 16-17th centuries), so I will often stick to the denotation Old Russian (OR), including Early Middle Russian, and Modern Russian (MR), including Late Middle Russian as well. Old Russian data have been extracted from conversational-like and narrative passages in the Primary Chronicle (early 12th century) contained in a 14th-century copy, the Laurentian Codex (AKAN 1926–28). Occasionally, examples of the Suzdal Chronicle (13th century) from the same Laurentian Codex (same edition) are given; these examples are marked as “Suzdal”. The passages are identified by the paragraph in the codex and the page number in the original edited version.

- I e<sub>i</sub> re(če) ima<sub>j</sub>...  
 and E told.3SG them.CL.DT.DU  
 ‘Lev sent for them (=Constantine and Methodius) and (they) came to the  
 tsar, and (he) told them...’ (9, p. 26)
- b. I bl(ago)s(lo)vi ju<sub>i</sub> patrearxъ<sub>j</sub>. I e<sub>i</sub> ide s miromъ  
 and blessed.3SG her.CL.ACC.F patriarch and E went.3SG with peace  
 въ svoju zemlju.  
 to own land  
 ‘And the patriarch blessed her (=Olga). And (she) went to her land in peace.’  
 (18, p. 62)

Example (2) shows that NSs tied to logophoric features were dropped in OR (the reference of the NS is the hearer, which is deictically recovered from the speech context). Examples (3-a)(3-b) illustrate null sentential topics: in (3-a), Lev sends for the brothers Constantine (Cyril) and Methodius from Thessalonica. In the next sentence, the reference of the NS shifts to the two brothers, and a second NS changes its reference back again to the initial topic, Lev. Here, disambiguation of the subject reference is performed with the help of verbal morphology (singular vs. dual). In (3-b), the reference of the NS shifts from the patriarch to Olga, who is the central topic of the passage, although she had been last mentioned as an overt subject 14 lines before. In this example, verbal morphology does not help to “find out” the NS’s reference, as all verbal forms are singular.

Now a pair of examples of emphatic (here contrastive) subjects show that these had to be realized as overt pronouns (Borkovskij 1978). In (4-a) I illustrate a first person and a second person contrastive pronoun. Third person did not have at the time a dedicated form for personal pronouns and other pronouns were used instead: demonstratives like *sej* ‘this’, and *onъ* ‘that’, most often before the adversative particle *že*, expressing contrast (4-b), or the emphatic pronoun *samъ* ‘himself’.

- (4) a. Azъ utro poslju po vy. Vy že rьčete...  
 I.NOM morning will.send.1SG for you.CL.ACC you.NOM PART will.say.2PL  
 ‘I will send for you in the morning. And you will say...’ (15-15v, p. 56)
- b. Onъ že reč(e) imъ: voto vy estъ.  
 this.NOM PART told.3SG them.DT here you.CL.DT is  
 ‘(The Novogorodians told Sviatoslav: “Give us Vladimir”). And he told them:  
 “here you have”’ (21, p. 69)

Incidentally, OR is reminiscent of Spanish, a modern language of the consistent NS type, in the sense that the two languages are very permissive with regard to the mechanisms of identification of the referential index of NSs. In Spanish, NSs are licensed in different informational environments, related not only to Given Topics, but also to Sentence Topics (Jiménez-Fernández 2016). This effect can be formalized by saying that any feature [+given] at CP is enough to license a NS, i.e. a feature transmitting the reference of an antecedent mentioned in (or inferred from) the previous context or shared knowledge of the situation. The fact that a pronominal subject in OR and Spanish has to be realized as null, in the absence of a [+focus] or [+contrastive] feature, suggests that a topic feature is regularly available at CP.

In Old Russian, the relevant configuration for licensing NSs was underpinned by the existence of V-to-T movement, which ensured the ability of T to (i) check the EPP, (ii) match its  $\varphi$ -features, and (iii) value its unvalued D-feature from that position, thus becoming able to transmit the necessary reference to the NS from a higher topic. In the case of non-perfect tenses, the canonical position of the conjugated verb in OR was high, often raising over clitics (5-a), and sometimes over subjects (cf. example (3-b) above). Jung (2018) also observes that, in perfect tenses, the auxiliary precedes negation. Word order in early texts (5-a) contrasts with later texts, in which NSs and clitics have been replaced by full pronouns and the position of the verb is lower (5-b):

- (5) a. *i e poklaneju ti se.*  
 and E.BOW.1SG YOU.CL.DT REFL.CL.ACC  
 'I greet (lit. bow to) you.' (Birch bark letter 798, late 12th c., ap. Jung 2018)
- b. *a jeza tobe koloneju-se.*  
 and I.NOM YOU.STR.DT BOW.1SG-REFL  
 'I greet (lit. bow to) you.' (Birch bark letter 501, early 14th c., ap. Jung 2018)

## 2.2 DIRECT OBJECT CLITICS IN OR

Early Slavic, including OR, displayed a range of clitic elements: pronominal clitics, verbal auxiliaries, and sentence clitics. Later East Slavic, including MR, lost pronominal and auxiliary clitics altogether. Most Slavic languages (West and South Slavic) have preserved all the three types of clitics (cf. i.a. Bošković 2016, Franks 2017; cf. Migdalski 2016 for a complete synchronic and diachronic overview of Slavic clitics).

In this paper, I will focus on pronominal accusative clitics (in direct object function), excluding the reflexive *se / sja*, whose development was different from the rest. The form *se / sja* was not lost, but became a verbal suffix signaling passive-medial voice, as well as reflexive-reciprocal values (cf. example (5-b)).

From the point of view of their use and pragmatic status, DO-clitics in OR are reminiscent of NSs, in the sense that they were all put to use in similar pragmatic conditions. Accusative clitics (sg. *mja, tja, i, ju*; pl. *ny, vy, e/ja*; dual *na, va, i/ja*) surfaced in "neutral" (non-focused, non-emphatic, non-contrastive) contexts; cf. examples (6) and (9-a)(9-b)(10-a)(10-b)(11-a)(11-b) below, and also examples (3-a)(3-b) above. In the same way as NSs, they also alternated with full pronouns (sg. *mene, tebe, ego, eě*; pl. *nasz, vasz, ixz*; dual *naju, vaju, eju*), used in contrastive, emphatic, or focused positions (7).

- (6) *e<sub>i</sub> povelě zasypati ja<sub>j</sub> zivy. I e<sub>k</sub> posypaša ja<sub>j</sub>.*  
 E commanded bury them.CL.ACC.PL alive and E buried them.CL.ACC.PL  
 'And (she) commanded to bury them alive. And (they) buried them.' (15v, p. 56)
- (7) *a samъ ide Kurьsku (...) a mene posla Smolinьsku.*  
 and himself went Kursk.DT (...) and me.STR.ACC sent Smolensk.DT  
 'He went to Kursk and me, he sent me to Smolensk.' (81, p. 247)

Additionally, compulsory use of a full accusative pronoun instead of a clitic could be due to purely phonological and prosodic reasons, i.e. stressed positions required the use of a full pronoun. For example, (i) in sentence-initial position, (ii) before an apposition, or (iii) a second coordinand in coordination (8-a) Zaliznjak (2008: p. 131ff).<sup>3</sup> These requirements were due to the phonologically deficient nature of clitics, which forces them to get an adequate prosodic support. Finally, non-verbal-adjacent positions, when the verb-clitic unit was interrupted by the presence of another element (e.g. a vocative or a dislocated subject), could also very often (although not always) force the realization of a full pronoun (8-b):

- (8) a. *kako preľstivše izъbъjutz [družinu moju i mene].*  
 like deceiving destroy army my and me.STR.ACC  
 '...that they will destroy me and my army using trickery.' (22, p. 71)

<sup>3</sup>In contrast to DO-clitics in the place of a first coordinand:

- (i) *B(og)ъ posadilъ [tja i knjazъ Andrěi] na otčině svoei i na dēdini v Kyevě.*  
 God put you.CL.ACC and prince Andrei in land own and in grandfather's in Kiev  
 'God put you and prince Andrei in your land and your grandfather's land in Kiev.'  
 (Suzdal 120, p. 356)

- b. da že by mene D(a)v(i)đъ poslušalъ...  
 for PART PART me.STR.ACC David.NOM hear.PAST.M.SG  
 'If David listened to me...'  
 (89, p. 265)

As in the case of NSs, I will assume a real pronominal status for DO-clitics, rather than considering them a mere reflection of agreement.<sup>4</sup> Following Uriagereka (1995), and Bleam (1999), among many others, accusative DO-clitics will be viewed here as special types of pronouns that are generated within the VP and then moved for prosodic support, i.e. they cliticize on the verb for independent phonological reasons.

As for the specific nature of OR clitics, I will follow the classic proposal by Cardinaletti & Starke (1999), namely that prosodic, phonological, and morphological deficiency of clitics correlates with less syntactic structure, as compared to full pronouns. According to these authors, a clitic would be a minimal noun projection at the lowermost level of the phrase, i.e. just an agreement projection. In the terms I have adopted in this paper, then, clitics would have the same basic structure as NSs, i.e. minimal  $\varphi$ Ps with valued interpretable  $\varphi$ -features. This parallelism is also crucial in other accounts, such as i.a. Bleam (1999) and Bošković (2016), who argue that clitics are pro elements (minimal  $\varphi$ Ps in a.o. Roberts 2010's terms).

Therefore, OR accusative clitics are viewed here as non-branching elements, ambiguous between heads and phrases, cf. Chomsky (1995), Bošković (2016), or as phrasal affixes, phonological material inserted directly in the phonological component as the expression of the properties of a phrase (Klavans 1985, Roberts 2010). The phrasal nature of DO-clitics in OR accounts for some idiosyncratic properties, which display mixed properties of OR DO-clitics, shared with weak pronouns (cf. Jung & Migdalski 2015):

(i) The existence of accusative clitics in combination with prepositions, such as *po vy* 'for you.CL.ACC.PL', as in example (4-b) above.<sup>5</sup>

(ii) The relative mobility of OR DO-clitics with respect to the verb. Clitics in early OR usually followed a synthetic verbal form ((3-a)(3-b), (5-a), (6), (9-a)(9-b)), but could sometimes immediately precede it (10-a)(10-b), be inserted between the auxiliary and the main verb (11-a), or precede a whole compound form (11-b) as well.

- (9) a. poneže ljublju tja pače brati tvoeje.  
 because love you.CL.ACC more brothers yours  
 'Because I love you more than your brothers.'  
 (72, p. 216)
- b. I na vesnu posadi mja o(ť)съ v Perejaslavli.  
 and on spring put me.CL.ACC father in Pereyaslav  
 'And in the spring, Father put me in Pereyaslav.'  
 (81v, p. 248)
- (10) a. kto věstъ kdě si mja položatъ.  
 who knows where those.NOM me.CL.ACC will.put  
 'Who knows where they will bury me.'  
 (71, p. 212)

<sup>4</sup>DO-clitics in Slavic, including its earlier periods, cannot double DPs or override Principle B, in contrast to other clitics, which are better analyzed as agreement elements in other languages, e.g. Spanish (cf. Bleam 1999, Ormazabal & Romero 2013, and references therein). On the other hand, OR defective pronouns qualify as clitics, due to their severe phonological and prosodic deficiency and their ability to cluster, as well as the typical restrictions regarding coordination and non-human reference.

<sup>5</sup>In the case of dative clitics, which are not analyzed here for reasons of space, the position after a preposition forced the use of a full dative pronoun, unlike their accusative counterparts. According to Zaliznjak (2008: p. 36), this trait demonstrates the earlier nature of clitics, which could be stressed in older periods of Slavic (in Old Church Slavonic), and became clitics only later. The puzzling fact, i.e. why dative and accusative clitics behave differently in this respect, remains unexplained in this account. The opposite hypothesis, i.e. that clitics were reanalyzed as weak pronouns in a later period (ap. Jung & Migdalski 2015) should be also discarded, as accusative clitics, and only accusative clitics, are regularly selected by prepositions, namely in the earliest OR texts. This property, together with a lesser degree of mobility of dative clitics as compared to accusative clitics, suggests an alternative analysis, namely, the heterogeneous nature of pronominal clitics in OR, as has been proven for other consistent NS languages like Spanish (cf. i.a. Bleam 1999, Ormazabal & Romero 2013). Thus, dative clitics could be less phrasal and more "affixal" than accusative clitics in OR. I leave this issue for future research.

- b. se bo mja vygnalъ iz goroda o(t)ca moego.  
 PART PART me.CL.ACC expelled from town of.father my  
 ‘As he threw me out of my father’s town.’ (81v, p. 248)
- (11) a. I reč(e) c(ěza)рь: perekljukala mja esi, Olъga.  
 and said tsar deceived me.CL.ACC AUX.2SG Olga  
 ‘And the tsar said: “You tricked me, Olga.”’ (17v, p. 61)
- b. na čto mja este pribavili, ose esmъ.  
 for what me.CL.ACC AUX.2PL call here am  
 ‘Why did you call me? Here I am.’ (92, p. 273)

As in the case of NSs, this sort of minimal  $\varphi$ Ps has a further requirement: its reference must be defined in the course of the derivation. As discussed in §2.1, licensing of NSs in consistent NS languages is tied to the presence of an unvalued D-feature on T (Holmberg et al. 2009), valued by the minimal  $\varphi$ P. This unvalued D-feature copies the referential index of a null or overt Topic, and transmits it to the NS during the Agree operation of  $\varphi$ -feature matching by the  $\varphi$ P. As a result of this operation, the valued features are “spelled out” in the shape of rich verbal morphology, and NSs in consistent NS languages can themselves be realized as null.

Accusative  $\varphi$ Ps, unlike NSs, are the expression of direct objects, so their Agree relation is performed with respect to small  $v$ , not T (Roberts 2010). DO-clitics, then, are  $\varphi$ Ps, merged in the canonical initial position of direct objects, and case is matched in the conditions standardly assumed, at  $v$ P. Right there,  $v$  gets its  $\varphi$ -features valued by  $\varphi$ P as well. In argument drop languages such as Basque, the  $\varphi$ -agreement operation of both minimal subjects and objects results in a similar morphological realization (overt subject and object verbal agreement, and no free clitics), while in other NS languages, such as Old Russian, Spanish or Italian, the morphological realization varies: subjects are null, and their  $\varphi$ -agreement is manifested as verbal agreement suffixes, whereas objects are overt clitics, and no object suffixation is realized on the verb.

On the other hand, given their informational properties, the reference of object  $\varphi$ Ps has to be determined by some (null or overt) Topic at CP. How does this happen? According to i.a. Progovac (1999), Migdalski (2016), and Bošković (2016), clitic licensing is parasitic on verb movement, just as in the case of pro subjects in consistent NS languages. Being prosodically deficient,  $\varphi$ Ps have an additional requirement to be adjacent to a suitable stressed word, the verb in the case of OR (a requirement in principle absent in the case of null elements). Thus, when the verb raises, the  $\varphi$ P moves in parallel to their common final landing site, where V attaches to T. In other words, following Kayne (1975) and Chomsky (1995), clitics move as phrases and attach to V-T as heads, in a sort of mixed head-phrase movement (cf. Matushansky 2006: p. 84ff, Roberts 2010). In the case of OR, both elements move “for a reason”; the V to attach to its inflectional suffix at T, and the clitic to get prosodic support and referential interpretation.

In the case of OR, this joint movement did not reach CP, but remained at the TP-level (the highest extended verbal projection), because DO-clitics in OR were not *per se* second position elements (ex.(9-a)(9-b), (10-a)), but rather verb adjacent elements (cf. the discussion in Jung & Migdalski 2015; Migdalski 2016: p. 269ff), and the language was not V2. DO-clitics always had to occur after sentence clitics (*bo*, *li*, and *že*), ethical datives, and the modal clitic *by*, which were strictly second position in OR (cf. Zaliznjak 2008), not necessarily forming a cluster, as shown in the following example:

- (12) usty že čtutъ mja.  
 mouth.INST.PL PART honor me.CL.ACC  
 “They honor me with their words.” (57, p. 169)

In short, from their high position in the sentence, both minimal subjects and objects were able get reference from a suitable null or overt topic at CP.<sup>6</sup>

<sup>6</sup>Co-occurrence of several topics related to clitics is evidenced in e.g. Spanish, a clitic-doubling consistent

- (13)  $[_{CP} \text{Topic}_1 \text{Topic}_2 \dots C [_{TP} \varphi P_1 (=NS) T\text{-}v\text{-}V \varphi P_2 (=clitic) [_{VP} \varphi P_1 v+V\text{-}\varphi P_2$   
 $[_{VP} V\text{-}\varphi P_2]]]]]$

The properties of OR DO-clitics mentioned so far follow straightforwardly from this structure: (i) DO-clitics surfaced as preverbal or postverbal, and always lower than second position clitic elements (sentence clitics of C-level); (ii) non-verb-adjacent accusative pronouns were most often realized as full pronouns (cf. examples (8-a) (8-b) above).

Middle Russian lost pronominal clitics altogether, so they do not exist in the language today. Only South and West Slavic still preserve pronominal clitics, whose properties vary from language to language (cf. Franks 2017, Bošković 2016, Progovac 1999, Migdalski 2016; and a long etcetera).

Finally, Borkovskij (1978: p. 313) reports examples of object drop of the modern type from 16th-century texts, at the time when the consistent NS character of the language was being lost (cf. example (22) and §3.2):

- (14) A ženix<sub>i</sub> po nevestu<sub>j</sub> ne ezdit, a privezet e<sub>j</sub> družka da svaxa.  
 and groom for bride not goes but carries E best.man and matchmaker  
 ‘The groom does not go for the bride; the best man and the matchmaker bring (her).’ (Putešestvija russkix poslov, Lixačev 1954, ap. Borkovskij 1978: p. 314)

### 2.3 REFERENTIAL NULL SUBJECTS IN MR

The final stage in the change analyzed here was completed in Late Middle Russian and is best represented by Modern Russian, which is characterized as a partial NS language (cf. i.a. Holmberg et al. 2009, Roberts & Holmberg 2010, Livitz 2014, Tsedryk 2015, 2022).

According to Holmberg et al. (2009), in partial NS languages, T lacks any D-feature whatsoever, so NSs, after valuing their  $\varphi$ -features in [Spec,T], are unable to get a referential interpretation, and must be interpreted as generic or arbitrary, unless they match an additional D-feature that endows them with a referential interpretation. In other words, to be interpreted as referential, NSs in these languages require an independent grammatical mechanism, namely, entering an additional relation established through CP with some higher DP whose referential index can be copied by the NS. Following Madariaga (2022), I will argue that this referential index can be obtained from heterogeneous sources in MR.

The first way to license referential NSs in MR is obtained by copying the index of a null topic at CP, licensed by informational features (by a null Given Topic). I will follow Sigurðsson (2011) and Tsedryk (2015) in stating that specific informational features (Edge-features), such as logophoric and situational/contextual/topical (deictic) features, can transmit a referential index to a D-lacking  $\varphi P$ , rendering it definite/referential. Given Topics are similar to Krifka’s 2007 Familiar Topics, part of the discourse common ground, shared by the speaker and the hearer (cf. §2.1).

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NS language, in which multiple overt and/or null topics can be clitic-doubled:

- (i) (Pedro<sub>i</sub>) (a su hijo<sub>j</sub>) (el móvil<sub>k</sub>) e<sub>i</sub> no se<sub>j</sub> lo<sub>k</sub> compra ni loco.  
 Pedro to his son the cellular E not CL.DT CL.ACC buys not mad  
 ‘Pedro will not buy his son a cell phone, no way.’ (Spanish)

In Old Russian, because of the relative freedom of word order, left-dislocated topics like the ones in (i) are difficult to distinguish from scrambling. Nonetheless, in Old Russian, overt topics, which function as antecedents of NSs are frequently found as part of a left-dislocated absolute participle construction in nominative case as in (ii):

- (ii) Bolgare<sub>i</sub> že uviděvše e<sub>i</sub> ne mogoša stati protivu.  
 Bulgars.NOM.PL prt. seeing.PCPL.NOM.PL E not could.3.PL be against  
 ‘Having seen it the Bulgars, they could not have any objection.’ (7, p. 14)

- (15) a. A vot i sjurpris! (Vy) davno priexali?  
 and this and surprise you long.ago came.PL  
 ‘What a surprise! Did you arrive long ago?’ (Logophorics)
- b. -Kak prošla zaščita Paši? -Velikolepno, (on) zaščitilsja blestjašče.  
 how passed defense Pasha.GN fantastic he defended brilliantly  
 ‘-How was Pasha’s defense? -Fantastic, he defended his thesis brilliantly.’  
 (Given Topic)

Example (15-a) illustrates the drop of a pronoun whose reference is anchored in the speaker-hearer domain (a logophoric feature). In (15-b), a Given Topic is illustrated: the reference of the NS is also recovered from the common knowledge of the participants’ discourse common ground. In this case, the question formulated by the first speaker implies that both participants in the conversation know that Pasha was about to defend his thesis, so that the pronominal referred to Pasha can be dropped.

The second environment that legitimates referential NSs in MR is also tied to the informational structure: referential NSs can be continuing topics, that is, successive occurrences of a Sentence Topic/Aboutness-Shift Topic, forming a “topic chain” (cf. Frascarelli 2007). In example (16), the successive instances of a nominative subject, a Sentence Topic (“the messenger”), already introduced in the discourse, are realized as null pronominal subjects.

- (16) Knigu dostavil kur’er<sub>i</sub>. Snačala e<sub>i</sub> vežljivo podošel ko mne, potom e<sub>i</sub>  
 book delivered courier first E politely approached to me then E  
 poprosil raspisat’sja.  
 asked sign  
 ‘The book was delivered by the messenger. He first came closer; then he asked me to sign.’

These two mechanisms of NS-licensing have in common the requirement of a suitable pragmatic environment, which endows the NS with a proper reference.

Sentence Topics in MR, unlike Given Topics in MR or Sentence Topics in OR (see §2.1), cannot be dropped. Admittedly, in MR, the distinction between logophoric/Given Topics and Sentence Topics is often difficult to grasp. However, there are contexts in which the two are clearly distinguished; in example (17), the first overt subject (*my*) creates a topic chain, and licenses dropping the next identical subject, which is realized as null (the same as in example (16)). However, the topic chain finishes here, as the following sentence introduces new propositional content; i.e., it shifts from “us going to the lake and doing something there” to “information about Ivan.” Thus, the new subject (*Ivan*) qualifies as a Sentence Topic and cannot be dropped.

- (17) My<sub>i</sub> idem na ozero. e<sub>i</sub> nadeemsja tam vstretit’ Ivana<sub>j</sub>. \*(On<sub>j</sub>)  
 we.NOM go.1PL to lake E hope.1PL there see Ivan.ACC he.NOM  
 obeščal nam peredat’ ključī.  
 promised.M.SG us pass keys  
 ‘We are going to the lake. We hope to see Ivan there. He has promised us to pass on the keys.’  
 (adapted from Tsedryk 2022: p. 42)

The third mechanism available in MR is non-topical embedded NSs entering an anaphoric relation with respect to a c-commanding antecedent in the matrix clause. This kind of embedded NSs has proved to be similar (though not identical) to non-finite NSs, i.e. PRO (cf. Livitz 2014, Tsedryk 2015, Shushurin 2017, Madariaga 2022). For this reason, they are also known in the generative literature as instances of “finite control” in partial NS languages (see i.a. Landau 2004 for Hebrew; Rodrigues 2004, and Boeckx et al. 2010 for Brazilian Portuguese).

- (18) Ivanov<sub>i</sub> poobeščal, čto očēn' skoro  $e_{i/*j}$  pokinet post prezidenta.  
 Ivanov promised that very soon <sub>E</sub> will.leave charge president  
 'Ivanov promised that he (=Ivanov) will leave the presidency very soon.'

Embedded NSs in finite contexts must be c-commanded by the closest correferent subject antecedent. Otherwise, the embedded subject must be overtly realized.

Now I will briefly describe the constructions underlying the three types of referential NSs in MR, according to the assumptions introduced in §2.1. Following Holmberg et al. (2009), in partial NS languages, T lacks an unvalued D-feature, so T cannot be the source of a referential index transmission to the minimal  $\varphi$ P (the NS), as happens in consistent NS languages, such as OR. Nonetheless, this referential index can be obtained in other ways:<sup>7</sup>

(i) An edge-feature present in C (deictic or logophoric) can endow a NS with a referential interpretation, in the presence of a Given Topic, as in examples (15-a)(15-b); cf. Sigurðsson's 2011 Germanic null topics, and Tsedryk (2015) specifically for Russian.

- (19) [<sub>CP</sub> OP<sub>[+edge]</sub> C [<sub>TP</sub>  $\varphi$ P<sub>i</sub> T...]]

(ii) Referential indexes can be transmitted to a NS in a topic chain, by index identification between two links of the chain (Holmberg et al. 2009), corresponding to examples (16)(17). According to Frascarelli (2007), the successive instances of a Sentence Topic/Aboutness-shift Topic copy its referential index through a Shift head. When the chain undergoes reduction, only the highest link needs to be pronounced (Bobaljik 2002).

- (20) [ DP<sub>i</sub> ... [<sub>ShiftP</sub> OP<sub>[+aboutness]</sub> [<sub>TP</sub>  $\varphi$ P<sub>i</sub> T...]]]

(iii) In finite embedded clauses, T lacks an unvalued D-feature, so the  $\varphi$ P needs to get its reference from the closest c-commanding subject, as in example (18). This mechanism of variable binding is simpler than in non-finite clauses, because the  $\varphi$ -features of T are already valued within the embedded clause. However, we still need a bound variable "mediating" between the controller and the embedded  $\varphi$ P for referential index transmission.

- (21) [ DP<sub>i</sub> ... [<sub>CP</sub> OP<sub>i</sub> C [<sub>TP</sub>  $\varphi$ P<sub>i</sub> T...]]]

At this point, it is important to note that it has been argued that MR lacks V-to-T movement under normal conditions; verbs undergo short movement instead, to an Asp head, intermediate between T and  $v$  (Bailyn 2012, Gribanova 2013; confirmed by experimental work by Kallestinova & Slabakova 2008). Constructions in MR that require a high verb do so for specific requirements, as Bailyn (2012) argues for inversion constructions (OVS, XVS, adversity impersonals, etc).

Finally, an identifying feature of MR, as opposed to other Slavic languages, is the availability of definite argument drop (McShane 2005, Gribanova 2013). This is a trait that was virtually absent in early OR, and developed in the language later in the course of its history (cf. ex. (14) above).

- (22) (Something falls; someone wants to get it.)  
 Ne vstavaj, ja  $e$  podnimu.  
 no rise.2SG I.NOM E will.pick.1SG  
 "Don't get up, I'll pick (it) up."  
 (From Gordishevsky & Avrutin 2003, ap. Gribanova 2013: 107)

<sup>7</sup>In Madariaga (2022), I account for the behavior and nature of the different interveners blocking referential NSs in all the three distinct contexts reviewed here, as well as for other syntactic properties, such as the position in the structure and binding abilities of the various types of NSs; cf. also Livitz (2014) and Tsedryk (2015, 2022).

Language	NS	Person agr	Article	Clitic pro	Clitic aux	Tense	Arg. drop
OCS, Old East Slavic	Cons	yes	no	yes	yes	yes	no
Modern East Slavic	Partial	yes(non-past)	no	no	no	no	yes
Bulgarian, Macedonian	Cons	yes	yes	yes	yes	yes	no
BCS, Czech...	Cons	yes	no	yes	yes	no	no

Table 1: Defective pronominalization and related phenomena in Slavic languages.

### 3 ACCOUNTING FOR THE CHANGE BETWEEN THE TWO SYSTEMS

The historical facts under study comprise related shifts, such as the change in licensing referential NSs in Russian and the loss of pronominal clitics, as well as tangential changes, such as the reorganization of subordinate clauses and the rise of null arguments. These changes have been studied in the literature on diachronic syntax under the labels “null subjects/pro-drop”, “pronominal arguments/clitics”, and “dative infinitive subjects” (Borkovskij 1978, Ivanov 1990, Zaliznjak 2008, Meyer 2011, Kibrik 2013, Migdalski 2016, Jung 2018, Madariaga 2018; among others).

In this section, I offer a unified account for these changes. In line with mainstream thought in formal accounts of diachronic syntax, I follow Lightfoot (1999), and assume a cue-based abductive model of reanalysis of the input a learner receives. Any modification of this input can be “interpreted” in a new way, leading learners to acquire a different structure in comparison to previous generations of speakers.

#### 3.1 SALIENT DIFFERENCES BETWEEN OR AND MR IN THE SLAVIC SCENARIO

Before continuing with an explanation of the change under study here, let us first consider the role of the different features that have been traditionally acknowledged to be involved in the licensing of null and defective pronominalization in Slavic. In Table 1, I offer a rough survey of the correlations between being a consistent or a partial NS language (type of NSs), the existence of person agreement, the presence or absence of articles in the language, the existence or absence of pronominal and auxiliary clitics, the type of verbal system (based on tense contrasts vs. aspectual contrasts), and the (un)availability of definite argument drop:

In view of these correlations, we can exclude the absence of articles and the presence of personal agreement, as these features did not essentially change in East Slavic, and therefore could not determine the shift under study. The relevant contrast between MR and older stages is represented by the different nature of NSs, the absence of clitics (auxiliary and pronouns), the reorganization of the aspect-tense system (together with the loss of V-to-T movement), and the rise of null objects of the modern type. In the following sections, I offer a unified account for the changes in these features.

#### 3.2 REORGANIZING TENSE/ASPECT AND THE LOSS OF V-TO-T

The Old Slavic verbal system was characterized by a rich system of verbal tenses, similar to the one we find in modern Romance languages or modern Bulgarian and Macedonian. Tense distinctions included a present, a future, and several past forms: two synthetic (aorist and imperfect) and two analytic (perfect and pluperfect, formed by a personal auxiliary clitic, raised to a high position in the sentence, and a participle I-form). Imperfect and pluperfect forms were archaic already in early OR, while aorist forms were frequent (cf. examples (2), (3-a), (3-b), (4-b), (6), (7) above). Zaliznjak (2008) and Meyer (2011) show that auxiliary clitics in perfect tense were regularly used only for 1st and 2nd person (cf. examples (11-a)(11-b) above), while the 3rd person auxiliary was highly archaic and

virtually nonexistent already in early OR (cf. example (10-b) above). In the following example, an aorist and a perfect form lacking the 3rd person auxiliary (an I-form of the modern type) co-occur:

- (23) I rekosta: cělovalъ tja brat(ъ).  
and said.AOR.3DU kissed.M.SG you.CL.ACC brother.NOM  
'And the two of them said: "your brother wishes you well." (Suzdal, 105v, p. 316)

Aorist faded out by the 14th century (Ivanov 1990). Simultaneously, also by the 14th century, I-forms associated with 1st and 2nd person auxiliaries in perfect tense, as well as synthetic verbs, started to be occasionally lowered (24-a). After that, auxiliaries were lost, between the 15th and 16th centuries (24-b) (Zaliznjak 2008).

- (24) a. Estъ u mene edinъ s(y)nъ doma menšii, a e sъ četyrmi esmъ  
is at me one son at.home young and E with four AUX.1SG  
vyšelъ, a onъ doma.  
left.L-FORM.M.SG and he at.home  
'I have a little son, and I came here with my other four children, and the young one stayed at home.' (*Hypathian Chronicle* 46, 13-14th c. AKAN 1923)
- b. A az stal v dolu s polkom, a Vasilju  
and I.NOM stood.L-FORM.M.SG in valley with army and Vasili.DT  
prikazal...  
ordered.L-FORM.M.SG  
'And I stood in the valley with the army and I ordered Vasili...'. (*Pervoe pišmo Vasilija Grjaznogo Ivanu IV Groznomu* 20, 1576 year, Šokarev 2000)

Because of the loss of verbal auxiliaries, analytic past forms became just low "synthetic" I-forms, marked for gender and number (not person), which did not raise to T (24-b). As for non-past synthetic forms, they preserved person marking, but stopped moving to T. See the contrast in the position of the verb in examples (5-a) vs. (5-b) above, repeated here as (25-a)(25-b):

- (25) a. i e poklaneju ti se.  
and E bow.1SG you.CL.DT REFL.CL.ACC  
'I greet (lit. bow to) you.' (Birch bark letter 798, late 12th c., ap. Jung 2018)
- b. a jęza tobe koloneju-se.  
and I.NOM you.STR.DT bow.1SG-REFL  
'I greet (lit. bow to) you.' (Birch bark letter 501, early 14th c., ap. Jung 2018)

Formally speaking, V-to-T movement was lost, i.e. V underwent short movement (no further than *vP/AspP*), and the old tense-based system gave way to a new paradigm, with just three basic tense distinctions (present, past, future), and instead based on aspect distinctions. The loss of V-to-T movement, in turn, led to the reanalysis of the T head as lacking an unvalued D-feature, when speakers stopped receiving the relevant cue to posit a D-feature in T (cf. a similar idea in Jung 2018, who proposes D-feature lowering rather than D-feature loss). This cue was the external (morphological) realization of the operation of D-feature valuing, that is, person agreement on T, given that the D-feature of T had no morphological expression of its own (Holmberg et al. 2009; cf. §2.1). On the one hand, the loss of overt morphology at T banned the acquisition of T as a head playing a role in D-feature transmission together with Agree. On the other, once V remained in *vP*, V's low position preempted the establishment of the direct syntactic relation between T and C the way it did before. The loss of the D-feature on T was completed between the 15th and 16th centuries, with the total loss of personal auxiliaries in the language (Jung 2018).

Example (25-b) demonstrates another symptom of the V-to-T loss, namely, the additional shift experienced by the reflexive clitic *se / sja*, which in OR was enclitic with

respect to the auxiliary (in perfect tenses) or the raised verb (in other tenses, as in (25-a)). After auxiliaries were lost and verbs stopped raising to T, *sę* / *sja* was the only clitic that survived, reinterpreted as a verbal passive / reflexive marker, and therefore lowered together with the verb. Later on, it became a verbal suffix (25-b), as it is nowadays.

### 3.3 REANALYZING REFERENTIAL NULL SUBJECTS

The loss of V-to-T movement and the reanalysis of T as lacking an unvalued D-feature produced a series of subsequent changes in the language. When T became unable to mediate in the operation of transmission of a D-feature to a minimal  $\varphi$ P, defective subjects could not automatically receive a referential interpretation, and could be interpreted only as generic or arbitrary (see §2.3). All defective referential pronominal subjects had to be realized as overt pronouns. This change is confirmed by the texts; overt pronouns of 1st and 2nd person, which had formerly functioned only as emphatic pronouns, experienced a notable increase in the 15-16th centuries in non-emphatic positions (Borkovskij 1978, Ivanov 1990, Meyer 2011). Later, in the 16-17th centuries, the demonstrative pronoun *онъ* ‘that’ extended in non-emphatic positions, reanalyzed as the 3rd person pronoun, which did not previously exist as such (cf. §2.1).

Russian should have become *de facto* a non-pro-drop language of the English or French type, but it did not. Speakers of Russian were able to preserve referential NSs. The persistent presence of referential subject gaps in the language, in the shape of referential NSs in non-finite clauses and in the productions of older generations of speakers, allowed learners to reanalyze or “reuse” referential NSs, instead of losing them altogether. How? They found alternative ways to interpret (and acquire) at least some instances of referential NSs by reanalyzing their mechanism of licensing. Given that T lacks a D-feature in partial NS languages, the definite (referential) interpretation of an NS requires some independent mechanism of reference transmission. Accordingly, in certain contexts, learners found suitable mechanisms of referential index transmission that rendered the definite interpretation they needed (cf. §2.3). D-feature transmission was performed from (i) a null logophoric or situational feature at C (structure (19)), (ii) an overt Sentence Topic in a topic chain (structure (20)), or (iii) an overt c-commanding antecedent in the case of embedded correferent NSs (structure (21)). In these contexts, and given that there are no interveners blocking the relation between C and the NS (cf. fn. 8), referential NSs “survived.” In other contexts, or in the presence of some intervener, referential NSs are overtly realized.

### 3.4 LOSING CLITICS AND DEVELOPING NULL OBJECTS

The loss of V-to-T had further consequences for other defective pronominal forms. In OR, clitics typically followed the raised verb or verbal auxiliary. When the verb started to remain low and verbal auxiliaries disappeared, clitics lost the necessary phonological support, and started to be realized as full pronouns (compare the dative clitic pronoun in (25-a) and the full dative pronoun in (25-b)). There was probably a short intermediate period, in which, after losing high verbal/auxiliary support, clitics were occasionally realized lower, as Zaliznjak (2008), and Jung & Migdalski (2015) argue. In any event, after the loss of V-to-T movement, DO-clitics became inviable, according to the mechanism of licensing defective  $\varphi$ Ps proposed in this paper (structure (13)), as they could not get a suitable reference from a low position. Therefore, very soon clitics were completely replaced by full, phonologically independent, and syntactically complete pronouns (D-elements).<sup>8</sup>

<sup>8</sup>The exact way in which clitics were replaced by full pronouns is beyond the scope of this paper, but the reader is referred to Jung & Migdalski (2015), and Migdalski (2016) for an explanation. These authors observe the alternation of certain clitics and full pronouns after prepositions in OR. These clitics had to be analyzed by speakers as tonic pronouns with a clitic form; this ambiguity was the possible source for the identification of pronominal clitics and stressed pronouns, and the eventual reinterpretation of the latter as

The loss of DO-clitics was not homogeneous (Zaliznjak 2008: p. 162ff): 1st and 2nd person clitics were lost by the 15th century, while 3rd person clitics were lost approximately a century later. The delay in the loss of 3rd person clitics as compared to 1st and 2nd person parallels the development of 3rd person vs. 1st/2nd person overt pronominal pronouns in place of the old NSs (see §3.3). This follows straightforwardly from the idea pursued here that both types of defective pronominals were essentially the same type of  $\varphi$ Ps, only in different syntactic functions and subject to different phonological requirements.

As a final development, overt realization of pronominal objects was not the only way to replace DO-clitics. The loss of the D-feature on T in Russian implied a complete change in the pro-drop system, and conveyed the automatic loss of the old mechanism of defective pronoun licensing, for both NSs and overtly realized clitics. However, at the same time, learners found a way to reinterpret referential NSs as being licensed from other mechanisms (structures (19), (20), and (21)), and some of these mechanisms became available for defective object referential  $\varphi$ Ps, now realized as null. In the case of objects, argument drop was available, given the right pragmatic conditions. Thus, as happened with the “new” or reanalyzed referential NSs in MR, the availability of transmission of a D-feature from a higher suitable topical element made possible the existence of defective  $\varphi$ Ps in the shape of null topical objects, free from the old requirement of prosodic support that OR clitics had (cf. examples (14) and (22)).

#### 4 CONCLUSION

In this paper, I offered a unified account for the change in the system of defective pronouns in the history of Russian (referential NSs and DO-clitics). This change can be conventionally divided into two general periods: Old Russian (including Early Middle Russian) and Modern Russian (including Late Middle Russian). The first period corresponds to a consistent-NS stage, while the second one must be characterized as a partial-NS stage. In a nutshell, referential NSs became very restricted in MR as compared to OR, whereas OR pronominal clitics were lost altogether. In this paper I showed that these two changes were closely related to each other.

DO-clitics and NSs are both minimal  $\varphi$ Ps, endowed with interpretable  $\varphi$ -features, which are matched in a regular way against  $\nu$  and T, respectively. Minimal  $\varphi$ Ps also need to receive a referential index (definiteness and referential interpretation) in the course of the derivation. In consistent NS languages, the presence of an unvalued D-feature at T automatically forces a referential interpretation of defective NS  $\varphi$ Ps, endowing them with a referential index from an overt or null topic at CP, whenever it is available. In Old Russian, V-to-T movement, detected by learners in the overt realization of person agreement at T, made it possible to acquire a D-feature on T. Clitic  $\varphi$ P objects, on the other hand, were realized as mixed head-phrasal elements within  $\nu$ P but, crucially, because they needed to lean phonologically on V, they raised together with V up to T, and got access to some overt or null topic at CP, which endowed them with reference, in a similar way as NSs.

The reorganization of the verbal system around aspectual distinctions in Early Middle Russian, and the consequent loss of V-to-T modified the cue necessary for learners to acquire a D-feature on T. On the one hand, the loss of long V movement left the T position empty, canceling the ability of T to “mediate” as a referential index transmitter from CP to the referential NS; in other words, T was reanalyzed and lost its D-feature. Thus, in MR, under normal circumstances pronominal subjects must be overtly realized. On the other hand, the loss of long V movement had an effect on clitics, which could no longer raise (together with the V), stopped receiving a referential interpretation, and eventually disappeared from the language, being replaced by full pronouns.

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weak pronouns.

However, in the case of NSs, learners were able to reanalyze residual instances of silent subjects: subject gaps can be licensed in MR as successive copies of A-shift topics, or licensed by given topics, or by a c-commanding subject in embedded clauses (so-called finite control). As for referential defective object pronouns, the mechanism of licensing NSs by a topic feature at C, which had arisen in the language, was applied to object  $\varphi$ Ps, too. Thus, null objects, not committed to any phonological requirement and therefore free to move regardless the behaviour of V, arose in the language, following the new pattern of  $\varphi$ Ps in subject position.

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#### ABBREVIATIONS

ACC	accusative	L-FORM	participle form
AOR	aorist	MR	Modern Russian
AUX	auxilliary	M	masculine
CL	clitic	NOM	nominative
D-feature	definite feature	NS	null subject
DO	direct object	OR	Old Russian
DT	dative	PART	particle
DU	dual	PL	plural
E	emprty category	REFL	reflexive
EPP	Extended projection principle	SG	singular
F	feminine	STR	strong
GN	genitive		

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