

# DERIVATION BY PHASE: RUSSIAN APPLICATIVES\*

*Alona Soschen  
Massachusetts Institute of Technology*

## 1. Introduction

This paper pursues two objectives. First of all, it offers a unifying analysis of Russian Applicative Constructions (RAC) where optional (possessor) NPs are morphologically marked by Dative Case (1a). RAC are usually discussed as Dative of Possession Constructions (DPC) in the linguistic literature. In the second part, the investigation of Applicative Constructions is extended to the properties of Double Object Constructions (DOC) where Indirect Objects are morphologically marked as Datives (1b).

- (1) a. Lin -a vyšila (Petr-u) rubašk-u. RAC/DPC  
Lina-NOM embroidered Petr-DAT shirt -ACC  
'Lina embroidered Peter a shirt.'
- b. Petr- dal \*(Lin -e) knig -u. DOC  
Petr-NOM gave Lina-DAT book-ACC  
'Peter gave Lina a book.'

Pylkkänen (2001, 2003) argues for two types of applicatives: ApplH(igh) and ApplL(ow). McGinnis (2001) adopts Pylkkänen's analysis, and argues that phase account of the applicatives constitutes a crucial step towards an explanatory account of cross-linguistic variation, based on the data from Kichaga, Albanian, and Bantu languages. However, there has been no study that examines DPC from the point of view of the phasal properties expressed in applicative phrases. The present work elaborates on Pylkkänen's approach, which leads to a Derivation by Phase explanation of Move and Agree in RAC and DOC.

## 2. Russian Dative of Possession Constructions

Two different types of Russian Possessive Constructions (Dative and Genitive) are discussed in detail in Lavine (1984). There are examples where possession is conveyed by the dative rather than the genitive - the case normally required expressing possession in Russian. In many cases Dat is not an alternative but is actually preferred to Gen (2, 3).

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- (2) a. Lin -a isportila Petr -u nastroeni-e.  
Lina-NOM ruined Petr-DAT mood -ACC  
'Lina ruined Peter's mood.'
- b. ??? Lin -a isportila nastroeni-e Petr-a.  
Lina-NOM ruined mood -ACC Petr- GEN  
'Lina ruined Peter's mood.'
- (3) a. Lin -a nastupila Petr-u na nogu.  
Lina-NOM stepped Petr-DAT on foot  
'Lina stepped on Peter's foot.'
- b. ??? Lin -a nastupila na nogu Petr-a.  
Lina-NOM stepped on foot Petr-GEN  
'Lina stepped on Peter's foot.'

The function of Dat is defined as 'directionality' to represent the *experiencer*, or the *recipient*. Lavine assumes that a corollary of directionality is a feature of *affectedness*.<sup>1,2</sup> In addition, Dat is perceived as more informative, showing a close relation between the possessor and the possessed object. For example, (4c) is inferable from (4a) but not from (4b).

- (4) a. Lin -a porvala mne jubk-u.  
Lina-NOM tore me-DAT skirt-ACC  
'Lina tore my skirt.'
- b. Lin -a porvala moju jubk-u.  
Lina-NOM tore my-ACC skirt-ACC  
'Lina tore my skirt.'
- c. Jubka byla na me.  
'The skirt was on me (I was wearing the skirt).'

The instances of 'inalienable possession' indicate a close connection between the possessor and the possessée where the object cannot be taken away, such as a part of the body in (3). In these examples, Dat is strongly preferred over Gen. In short, Dat/Gen alternation can be explained if Dat marks the intrinsic bond between the two entities, while Gen expresses a relation of belonging where one entity does not constitute a part of the other.

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<sup>1</sup> Similar constructions with the expression of 'affectée' are found in Hebrew:

(1) Rina oxla (li-DAT) et ha-tapuax.  
(lit.) 'Rina ate me the apple.' Meaning: Rina affected me by eating the apple.

<sup>2</sup> Dat of *affectedness* constructions are observed in Russian child language (vs. their ungrammaticality in adult language).

(2) Ja ne tebe-DAT plaču, ja mame-DAT plaču.  
(lit.) 'I am not crying to you, I am crying to my mommy.'

### 3. Two Types of Applicative Constructions

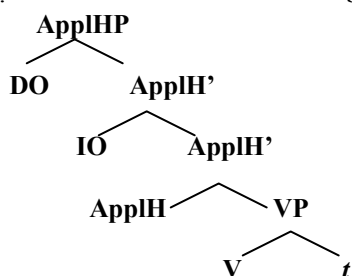
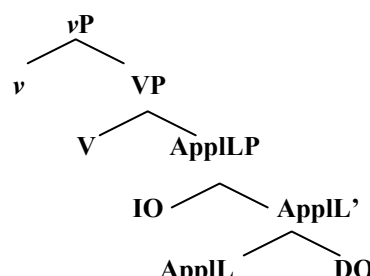
A semantic contrast is observed in Russian (5) and English (6). Examples (5a) and (6a) indicate *possession*, in contrast with (5b) and (6b) where the meaning *goal* is conveyed by a PP.

- (5) a. Lin -a vyšila Petr-u rubašk-u.  
Lina-NOM embroidered Petr-DAT shirt -ACC  
'Lina embroidered Peter a shirt.'
- b. Lin -a vyšila rubašk-u dlja Petra.  
Lina-NOM embroidered shirt -ACC for Petr  
'Lina embroidered a shirt for Peter.'
- (6) a. John baked Mary a cake.
- b. John baked a cake for Mary.

Pykkänen (2001) analyzes English examples as having two different types of applicative constructions. This classification is viewed as necessary to account for the difference in semantic interpretation, and also to provide an account for the distribution in passive sentences in (7).

- (7) a. \*A cake was baked Mary *t*.
- b. A cake was baked *t* for Mary.

A relation between two individuals involves Low Applicative, while High Applicative is instrumental in expressing a relation between an individual and an event.<sup>3</sup> According to Pykkänen, the object NP-raising depends on either ApplH(igh) or ApplL(ow) heading the Applicative Phrase (8).

- (8) a.  b. 

<sup>3</sup> See Kallulli's (2005) examples from Albanian and Serbo-Croatian involving dative DPs in constructions that express a relation of unintended causation holding between an individual and an event.

The distinction between the two structures is in the movement to subject position in ApplH. This movement is possible because it heads a *phase* which provides an extra Spec position, while ApplL does not. The lower object can raise to the subject position in a passive High Applicative (7b), but not in a passive Low Applicative (7a).

Following Chomsky (1999, 2000), *v*P, CP, and possibly DP constitute phases, in contrast with VP and TP which do not possess phasal properties. Only the edge and the head of a phase are visible to later syntactic operations; the domain is opaque. Derivations are sent off to PF and LF at each phase. In applicative constructions, DO moves to Spec, ApplP to check uninterpretable features on a phase head. When the head of ApplP does not have uninterpretable features, movement of DO to Spec, ApplP is blocked. It will be shown that in Russian, in contrast with English, ApplLP constitutes a phase, which accounts for object-to-subject movement.

#### 4. Russian Applicative Constructions

In this paper, we argue that a Derivation by Phase approach allows us to account for both the differences between English (9a) and Russian (10a), and similarities between (9b) and (10b).

- (9) a. \*A cake was baked Mary *t*.  
 b. A cake was baked *t* for Mary.
- (10) a. Rubašk-a byla vyšita Petr-u.  
 shirt -NOM was embroidered Petr-DAT  
 (lit.) ‘A shirt was embroidered Peter.’
- b. Rubašk-a byla vyšita dlja Petra.  
 shirt -NOM was embroidered for Petr  
 ‘A shirt was embroidered for Peter.’

We support the idea that certain Spell-out domains created in a derivation constitute phases. The linear ordering of syntactic units - a result of Move and Merge within a relevant domain - is fixed at the end of each domain, with the derivation sent off to PF and LF at each phase. Object-to-subject movement in passive constructions depends on whether the phase is strong or weak.

##### 4.1. Strong and weak phases in Russian

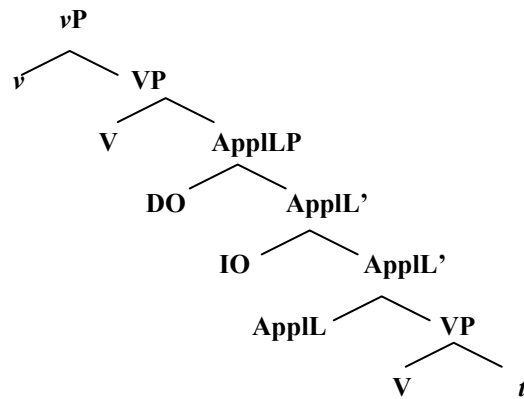
According to Harves (2001), *v*P constitutes either a *strong* or a *weak* phase in certain Russian constructions. Two kinds of phases are distinguished to account for the genitive/accusative alternation in (11). Acc is valued *in situ* via Agree with *v* (*v*P is a strong phase), while Gen is valued *in situ* via Agree with Neg (*v*P is a weak phase).

- (11) a. Ivan ne kupil zurnal.  
Ivan-NOM NEG bought magazine-ACC  
'Ivan didn't buy a magazine.'
- b. Ivan ne kupil zurnal -a.  
Ivan-NOM NEG bought magazine-GEN  
'Ivan didn't buy a magazine.'

#### 4.2. Phasal Properties of ApplL in Russian

The suggestion that ApplL is phasal in Russian is in agreement with Harves (2001). In RAC, Dative case is valued *in situ* via Agree with ApplL(ow) Head. A phase-EPP feature of ApplL accounts for DO movement in (10a) with a structural representation in (12), which is consistent with the property of a phase to have an extra Spec-position.

(12)



ApplHP-phase requirements in sentences with *for*-PPs are the same in English and Russian: passivization is possible in both cases.

- (13) a. Rubašk-a byla vyšita Linoj dlja Petra.  
shirt -NOM was embroidered by Lina for Petr  
'A shirt was embroidered by Lina for Peter.'
- b. A cake was baked by John for Mary.

#### 4.3. Long Distance Case Checking

Long distance Nom Case-checking in (14a) points to the fact that Agree does not always result in Move. Here, the object marked by Nom (Agree with T) does not move. NP-Dat is raised to [Spec, TP] at the end of the ApplL-phase to satisfy the EPP-feature of T.

- (14) a. Petr-u byla vyšita *t* rubašk-a.  
Petr-DAT was embroidered shirt -NOM  
'Peter was embroidered a shirt.'
- b. ?Rubašk-a byla vyšita Petr-u *t*.  
shirt -NOM was embroidered Petr-DAT  
'Peter was embroidered a shirt.'
- c. ???Petr-u rubašk-a byla vyšita *t t*.  
Petr-DAT shirt -NOM was embroidered  
'Peter was embroidered a shirt.'

The *locality condition* (Richards 2001) states that [Spec, TP] attracts the closest unchecked argument in T's c-command domain – however, (14a) is preferable to (14b), which shows that the EPP-feature of T is maximally satisfied by NP which already has Dat case checked with the head of ApplLP. Sentence (14c) exemplifies a distribution of labor between Move and Agree: only one of the two NPs moves: either NP-Dat (14a) or NP-Nom (14b), but not both (14c).

In sum, the distinction (*a-la*-Harvie) between the properties of vP as strong/ phasal and weak/ non-phasal accounts for the resultant differences in object movement of Russian and English applicative constructions; there is also a preference to move a 'saturated', or case-checked NP in Russian to satisfy the EPP-feature of T.

## 5. Russian Applicative and Double Object Constructions

In the linguistic literature, a parallelism between applicative and double object constructions and has not been given enough attention. The second part of this paper provides an account for similarities between RAC and DOC: once IO is assigned Dat case *in situ*, it cannot undergo passivization in Russian (15a). This is in contrast with English, where Nom is assigned in Spec, TP (15b).

- (15) a. \*Petr/ Petr-u byl dan/ vyšit *t* rubašk-u.  
Petr-NOM/Petr-DAT was given/ embroidered shirt -ACC  
'Peter was given/ embroidered a shirt.'
- b. Peter was given/embroidered a shirt.

This restriction does not hold for Russian DO-movement of both DOC and RAC (16a). In contrast, English does not allow DO-movement in passive constructions (16b).

- (16) a. Rubašk-a byla dana/ vyšita Petr-u *t*.  
shirt -NOM was given/embroidered Petr-DAT
- b. \*A shirt was embroidered/given Peter *t*.

Following Marantz (1993) who argued for the intermediate projection between the high VP and a lower VP, we postulate  $\nu$ L(ow) – the head of a phase – in Russian DOC, to emphasize a parallelism between DOC and RAC. According to the hypothesis under discussion, both ApplL and  $\nu$ L head phases in Russian, which is shown in (17) where Y is IO and Z is DO.

- (17) a.  $[_{TP} T [_{VP} X [_{\nu} \nu [_{\nu LP\text{-phase}} Y [_{\nu L'} \nu LH [_{VP} V Z]]]]]]]$   
 b.  $[_{TP} T [_{VP} X [_{\nu} \nu [_{AppILP\text{-phase}} Y [_{AppIL'} ApplLH [_{VP} V Z]]]]]]]$

Agreement with T for IO is blocked due to the Spell-Out requirements of  $\nu$ LP in Russian DOC and ApplLP in RAC. Nom Case-marking of DO in Russian is a result of passive movement to an extra Spec position provided by the phases  $\nu$ LP and ApplLP, and a consequent Agreement of DO with T (18).

- (18) Rubašk-a byla dana/ vyšita Petr-u *t*.  
 shirt -NOM was given/embroidered Petr-DAT  
 (lit.) ‘A shirt was embroidered/given Peter.’

In sum, a phasal property of  $\nu$ L in DOC allows DO-movement which is exemplified in (19a), parallel to movement in ApplLP (19b).

- (19) a.  $[_{TP} Z [_{T'} T [_{\nu LP2} t_Z [_{\nu LP1} Y [_{\nu L'} \nu LH [_{VP} V t_Z]]]]]]]$   
 b.  $[_{TP} Z [_{T'} T [_{AppILP2} t_Z [_{AppILP1} Y [_{AppIL'} ApplLH [_{VP} V t_Z]]]]]]]$

Derivation by Phase in Russian constructions is contrasted with English where neither  $\nu$ LP nor ApplLP are phases, which creates a possibility for IO-movement (20a). However, object-to-subject movement of DO is blocked, because non-phasal heads do not project an extra Spec-position (20b).

- (20) a. Peter was given/ embroidered a shirt.  
 b. \*A shirt was given/ embroidered Peter *t*.

To conclude, the properties of Russian DOC and RAC depend on the qualification of  $\nu$ LP and ApplLP as phases. This way it can be explained why Dative NPs in Russian constructions under investigation must always be spelt out overtly.

## 6. Discourse Constraints on Dative Movement in DOC

Dative Movement (DM) in DOC is discussed at length in Erteschik-Shir (1979). Erteschik-Shir concludes that the discourse approach is preferable to the analysis of DM, and shows that it predicts various kinds of data that other analyses, being purely structural, cannot account for. As an example, it is observed that DM

depends not only on the verb, such as in (21), but also on the IO expressed by a pronoun. For many speakers, (22a) is better than (22b).

- (21) a. Mary was given a gift  
 b. \*Mary was sent/ passed a gift.

- (22) a. ???A book was given me.  
 b. \*A book was given Mary.

Erteschik-Shir ascribes the difference to the *dominance* relations in the sentence. A constituent of a sentence is defined as *dominant* if and only if the speaker intends to direct the attention of his hearers to the intension on the constituent. However, a question remains whether some other factors are involved as well, such as in (22) where both the noun and the pronoun are sentence-final (*dominant*).

In Hebrew, the difference comparable to that in (22) is visible in active sentences. When IO is a pronoun, it obligatorily occupies a position immediately following the verb (23); in (24) where IO is NP, there no such a requirement.

- (23) a. \*Hu natan et ha -sefer li.  
 He gave the-ACC the-book to-me-DAT  
 'He gave the book to me.'
- b. Hu natan li et ha -sefer.  
 He gave to-me-DAT the-ACC the-book (Erteschik-Shir 1979)  
 'He gave me the book.'
- (24) a. Avi šalax et ha -sefer le Dani.  
 Avi sent the-ACC the-book to Dani  
 'Avi sent the book to Dani.'
- b. Avi šalax le Dani et ha -sefer.  
 Avi sent to Dani the-ACC the-book  
 (lit.) 'Avi sent to Dani the book.'

A theory of *dominance* does not explain why a Hebrew pronoun may appear in a non-dominant position only, while both representations are possible in other languages.

According to the analysis developed in this paper, explanation is derived from the assumption that phasal requirements of vPs are sensitive to the lexical input. In this case, Hebrew exhibits a structural preference for vLP over vHP in the presence of a pronoun, which also holds for English (22).



## 7. Wexler's discussion of phasal properties of *v*Ps

Wexler (2004) proposes the Universal Phase Requirement (UPR) which treats all *v*Ps as phases. According to Wexler, UPR exists because the child has a 'perfect' grammar in minimalist terms.

A-Chain Delay Hypothesis (ACDH) cannot account for the fact that the child has no problem raising a subject out of a VP (or a *v*P) forming an A-chain; however, there are problems with a wide range of other structures containing A-chains. These are delayed in verbal passives and unaccusatives, in contrast with adjectival passive, transitive, and unergative structures, which are not delayed. In the former, there is an A-chain as a result of the object-to-subject movement. In the latter, there is no object-to-subject movement, but there is the raising of the external argument to Spec, T, which is also an A-chain.

Full 'actional' passives (25a) show a better performance than 'non-actional' passives (25b) which follows from the ability of children to treat full verbal passives as adjectival passives with a *by-phrase*, in which case 'a broken window' is fine, but 'a seen window' is not.

- (25) a. The window was broken by John.  
 b. The window was seen by John.

This conclusion was further confirmed by the data from other languages. In Greek, children perform equally poorly on both 'actional' and 'non-actional' passives - the strategy of treating the 'actionals' as adjectives is unavailable due to the fact that passive verbal and adjectival (periphrastic) forms are not homophonous (cf. 'AUX broken'/'a broken NP' in English).

Passives and unaccusatives move the object to subject position, the movement that is delayed. However, both in transitives and unaccusatives a subject ends up in Spec, T position. What accounts for the delay then? According to the External Argument Requirement Hypothesis, children take structures with *defective v* as ungrammatical. Defective *v* is a light verb of passives and unaccusatives that doesn't select an external argument. Following Wexler, pre-mature children (until around age 5) take defective *v* to be a phase. *Universal Phase Requirement (UPR) states that (any) v defines a phase, whether v is defective or not.*

The analysis developed in this paper shows that both ApplL and *v*L possess phasal properties in Russian. While Russian ApplLP and *v*LP qualify as phases, in English neither ApplLP nor *v*LP are phases. The conclusion confirms UPR in that any *v* can in principle define a phase. Language-specific parameters of Russian are responsible for assigning phase-characteristics to ApplLP and *v*LP, in contrast with English.

## 8. Summary and conclusions

In this paper we have presented a structural account for the differences and similarities between applicative and double object constructions in Russian and

English. A Derivation by Phase approach allows us to account for the differences between English and Russian passive sentences. In Russian, Dat case of IO is valued *in situ* via Agree with ApplLow Head, followed by the Spell-Out. This is in contrast with English where Nom case of IO is valued with T. Furthermore, DO movement is dependent on the property of a phase to have an extra Spec-position, which is the case in Russian. In English, the DO-movement is blocked due to the absence of a Spec-position because ApplLow is non-phasal.

The second part of this paper provided an account for similarities between Applicatives and DOC in Russian. We postulated  $vL(ow)$  – the head of a phase - in Russian DOC. According to the hypothesis under discussion, both ApplLow and  $vLow$  possess phasal qualities in Russian. This explains why Dative NPs in Russian constructions under investigation must be always spelt out overtly.

In sum, we propose that derivations under investigation depend on the phasal/non-phasal properties of ApplL and  $vL$ . Both ApplLP and  $vLP$  qualify as phases in Russian, which was contrasted with English where neither ApplLP nor  $vLP$  are phases. Also, it was shown that phase requirements of ApplHP are similar in both languages in allowing DO-movement. The analysis presented in this paper confirms the Universal Phase Requirement which treats all  $vPs$  as phases.

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