

## Teasing apart telicity and grammatical aspect

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### 1. PREMISES

- two different levels of aspectuality:  
**inner aspect** (telicity) vs. **outer aspect** (imperfective vs. perfective)
- Slavic prefixes do not uniformly mark perfective aspect
  - (1) *On pod-pis-yva-t' pis'mo.* – ‘He signed / was signing the letter.’  
he UNDER-write-IPF-PAST letter.ACC
  - (2) *On po-vy-da-va-l' knigi.* – ‘He gave out (the) books.’  
he PO-OUT-give-IPF-PAST books.ACC
- Slavic prefixes do not uniformly mark telicity
  - (3) *On po-spal dva časa.*  
he PO-sleep.PAST for two hours
  - (4) *\*On po-spal za dva časa.*  
he PO-sleep.PAST in two hours

### 2. THE DATA: ASPECT USAGE IN RUSSIAN AND CZECH

#### Main differences between Russian and Czech (Gehrke (2002), cf. also Petruxina (2000))

- **state verbs** in general: Russ. **perfect** meaning often with perfective copula verbs e.g. *okazalsja* vs. Czech imperfective *byl* – ‘was’ / *měl* – ‘had’
- Russian perfective **temporal Aktionsart verbs** (prefixes *po-*, *pro-*, *za-*) vs. Czech imperfective state and process verbs.
- **directed motion verbs**: Russ. pf. *pošel* vs. Czech ipf. *šel* (‘went’).<sup>1</sup>
- **perception verbs**: Russ. pf. *uvidel* / *posmotrel* vs. Czech ipf. *viděl* / *díval* (‘saw’ / ‘looked / watched’)
- **repetition**: Russian secondary imperfectives vs. Czech “simpler” verb forms
- Russian **gerunds** vs. Czech finite verb forms (more subordinate clauses)

e.g. *po-* - ‘a bit’:

Czech ‘spatial’: *po-o-točila*<sup>P</sup> *křeslo* – ‘she turned the chair a bit’; *po-klek-l*<sup>P</sup> – ‘he kneeled a bit’

- (5) *Pak holička po-od-stoupila*<sup>P</sup> [...] (Kundera, *Žert*)  
then hairdresser.NOM PO-FROM-step.PAST  
‘Then the hairdresser stepped aside a little bit.’  
*Potom parikmaxerša oto-šla*<sup>P</sup> *čut*<sup>P</sup> [...] (Russian translation)  
then hairdresser.NOM FROM-go.PAST bit

<sup>1</sup> Czech *pošel* has a different lexical meaning – ‘kicked the bucket’.

Russian temporal: *po-* (*pro-*, *za-*)<sup>2</sup> primarily to mark grammatical aspect and to move R

- (6) *On pomolčal<sup>P</sup> nekotoroje vremja v smjatenii, vsmatrivajas<sup>1</sup> v lunu,*  
 he PO-be-silent.PAST for a while in confusion IN-look.IPF.PART in moon.ACC  
*plyvuščuju za rešetkoj, i zagovori<sup>P</sup>: [...]* (Bulgakov, *Master i Margarita*)  
 swimming behind bars and ZA-speak.PAST

‘Bewildered, he was silent for a while and looked at the moon behind the bars. Then he said: [...]’

*Chvíli zaraženě mlčel<sup>1</sup>, sledoval<sup>1</sup> plující měsíc za mříží,*  
 a-while bewildered be-silent.PAST follow.PAST swimming-moon.ACC behind bars  
*a pak se zeptal<sup>P</sup>: [...]* (Czech translation)  
 and then SE PF-ask.PAST

- (7) ... že *jsem<sup>i</sup> u něho byla<sup>i</sup> celou hodinu a o jeho ústavu*  
 that AUX.1SG at him be.PAST whole-hour.ACC and about his institute  
*jsem věděla<sup>i</sup> tolik co předtím...* (Kundera, *Žert*)  
 AUX.1SG know.PAST so much what before

‘...that I spent a whole hour with him and about his institute I knew as much as before...’

... čto ja *protorčala<sup>P</sup> u nego bityj čas i ušla<sup>P</sup>,*  
 that I PRO-be(-located).PAST at him beaten-hour.ACC and AWAY-go.PAST  
*tak i ne uznav<sup>P</sup> dlja sebja ničego novogo...* (Russian translation)  
 so also not PF-know.PART for self nothing new

**e.g. habituality:**

- (8) *Mnogie iz 30 tysjač mexaničeskich ekipažej, begavšie<sup>IDIR</sup> v 28-m*  
 Many.NOM.PL out 30.000 mechanical carriages run.PASTACTPART in 28<sup>th</sup>  
*godu po Moskve, proskakivali<sup>i</sup> po ulice Gercena, šurša<sup>i</sup>*  
 year along Moscow, THROUGH-jump.PAST along street Herzen.GEN rush.GER  
*po gladkim torcam, i čerez každyju minutu s gulom i skrežetom skatyvalsja<sup>i</sup>*  
 over smooth pavement and through every minute with din & squeak DOWN-roll.PAST  
*s Gercena k Moxovoj tramvaj 16, 22, 48 ili 53-go maršruta. (Master i Margarita)*  
 from Herzen to Moxovaja tram 16, 22, 48 or 53<sup>rd</sup>.GEN line.GEN

‘Many of the 30 thousand mechanical carriages, driving around Moscow in 1928, ran along Herzen Street, rushing over the smooth pavement, and every minute tram line 16, 22, 48, or 53 chased from Herzen Street to Moss Street with a din and a squeak.’ (Bulgakov, *Rokovye jaica*)

<sup>2</sup> The Czech cognate of the Russian *pro-* (~ ‘a long time’) is not very common. On top of that, it often derives secondary imperfectives which is why this prefix could arguably be treated as an internal one in Czech (note also that it changes the argument structure since the use of an accusative DP indicating the time that is V-ed becomes obligatory.) The ingressive *za-* is non-existent in Czech where ingressivity is regularly contextually induced (cf. Ivančev (1959/60)).

*Mnohé z třiceti tisíc drožek, které v osmadvacátém jezdily<sup>iUNDIR</sup> po  
 Many.NOM.PL out-of 30.000 carriages which.PL in 28<sup>th</sup> drive.PAST along  
 Moskvě, **proklouzly<sup>p</sup>** Gercenovou ulicí a **zasvištěly<sup>p</sup>** na hladkém  
 Moscow THROUGH-glide.PAST Hercen-street.ACC and ZA-whiz.PAST on smooth  
 dřevěném dláždění; každou minutu **se s řinkotem a skřípěním přehnal<sup>p</sup>**  
 wooden pavement; every-minute.ACC REFL with din and squeak OVER-chase.PAST  
 od Gercenovy ulice k Mechové tramvaj číslo 16, 22, 48 nebo 53. (Czech translation)  
 from Hercen-street to Mechova tram no. 16, 22, 48 or 53*

### 3. VERB CLASSIFICATION

Some Slavic verbs are in and by themselves culminations.

Młynarczyk (2004): formationally-driven classification of Polish verbs

	‘empty prefix’	<i>po-</i>	semelfactive <i>-ną-</i>	morphonological change <sup>3</sup>
<b>class<sub>1</sub></b>	yes			
<b>class<sub>2</sub></b>		yes		
<b>class<sub>3</sub></b>	yes	yes		
<b>class<sub>4</sub></b>	yes	yes	yes	
<b>class<sub>5</sub></b>				yes

formational classification induces semantic distinction:

	IMPERFECTIVES	PERFECTIVES
<b>class 1</b>	statives and ongoing gradual transitions	inchoatives and completed gradual transitions
<b>class 2</b>	ongoing processes	completed processes
<b>class 3</b>	ongoing culminating processes	completed culminated processes
<b>class 4</b>	ongoing unitisable processes	completed non-culminated culminating processes completed arbitrary unitisable processes completed non-minimal unitisable processes completed minimal unitisable processes
<b>class 5</b>	<b>ongoing culminations</b>	<b>completed culminations</b>

can be carried over to Russian (and Czech), examples:

<b>class 1</b>	<i>(u)videt’</i> – ‘see’ <i>(po)krasnet’</i> – ‘become red’	<b>class 3</b>	<i>(na)pisat’</i> – ‘write’ <i>(po)pisat’</i>
<b>class 2</b>	<i>(po)sidet’</i> – ‘to sit’	<b>class 4</b>	<i>(po)kričat’</i> – ‘shout’ Czech <i>(za)kričet</i> <i>kričat’</i> – <i>krik-nu-t’</i>

<sup>3</sup> Morphonological change (to a great extent suffixation, less often vowel alternation) derives secondary imperfectives. The verbs in class 1 to class 4 are imperfective base verbs which derive their perfective counterparts by prefixes or the semelfactive suffix. The class 5 verbs are perfective base verbs (derive secondary imperfectives).

- (9) *On ot-kryl<sup>p</sup> okno.* (Russian class 5 verb)<sup>4</sup>  
 he open.PAST window.ACC  
 ‘He opened (the / a) window.’
- (10) *On ot-kry-va-t<sup>i</sup>, no ne ot-kryl<sup>p</sup> okno.* (Russian class 5 verb)  
 he open.IPF.PAST but not open.PAST window.ACC  
 ‘He tried to open the window, but didn’t.’

**The culmination point is marked by internal prefixes.**

Młynarczyk’s class 5 verbs are perfective base verbs that derive imperfectives by morphological change (‘secondary imperfectives’).

Class 5 verbs usually contain prefixes (in the lexicon).

*po-*: applies at a higher level in the syntax.

#### 4. INTERNAL VS. EXTERNAL PREFIXES

##### Di Sciullo & Slabakova (forthcoming): internal vs. external prefixes

internal prefixes: prepositional properties

external prefixes: adverbial properties

- (11) [TP External T [vP [VP Internal T]]]

External [T] feature in T° – BOUNDEDNESS

Internal [T] feature in v° – TELICITY

##### internal vs. external prefixes

- Internally prefixed verbs are lexically distinct from the unprefixed verb and the semantic contribution of the prefix is highly idiosyncratic (⇒ lexical).  
The application of external prefixes leads to a predictable meaning change.
- Internal prefixes show argument structure effects, external prefixes do not.
- Internally prefixed verbs derive secondary imperfectives.  
Perfective verbs with external prefixes do not.
- Externally prefixed verbs cannot occur as infinitival subjects. Infinitives of these verbs are always dependent on some other verbal form:

- (12) *Nado po-govorit<sup>p</sup> s nim.* – ‘It is necessary to (have a) talk with him.’

- Only external prefixes can stack (on top of internal or external ones) but not internal ones.

<sup>4</sup> Remark on the glosses of the Russian and Czech examples: Since every Slavic verb form is unanimously either grammatically imperfective or perfective but since there is not a clear line in the literature as to what exactly and in all cases morphologically marks grammatical aspect, the grammatical aspect will be indicated as superscripts on each verb form in the original. Only secondary imperfectives that are always marked as such will also be glossed as IPF.

**Internal but not external prefixes induce telicity.**

- compatibility with temporal adverbials
  - (13) *On po-spal<sup>P</sup>* (\*za) dva časa. (Russian external prefix)  
he PO-sleep.PAST (\*in) two hours
  - (14) *On ot-kryl<sup>P</sup> okno* \*(za) dva časa. (Russian internal prefix)  
he open.PAST window.ACC \*(in) two hours
- telicity entailments:
  - (15) *Ja pro-čital<sup>P</sup> knigu.* entails *Ja (bol'se) ne čitaju<sup>I</sup> knigu.* (Russ. int. pref.)  
I THROUGH-read.PAST book.ACC I (anymore) not read.PRES book
  - (16) *Ja po-čital<sup>P</sup> polčasa.* doesn't entail *Ja (bol'se) ne čitaju<sup>I</sup>.* (Russ. ext. pref.)  
I PO-read.PAST ½ hour I (anymore) not read.PRES
- compatibility with *to the end, stop / finish*:
  - (17) \**Ja po-čital<sup>P</sup> knigu do konca.* vs. *Ja pro-čital<sup>P</sup> knigu do konca.*  
I PO-read.PAST book to the end I THROUGH-read.PAST book to the end
  - (18) *On po-spal<sup>P</sup>.* - *On prekratil<sup>P</sup> spat<sup>NI</sup>.* / \**On zakončil<sup>P</sup> spat<sup>NI</sup>.*  
he PO-slept he stopped sleeping / \*he finished sleeping
  - (19) *On u-bil<sup>P</sup> svoju ženu.* - *On zakončil<sup>P</sup> ee ubivat<sup>NI</sup>.* (Russ. ext. pref.)  
he killed his wife he finished killing her
  - (20) *On prekratil<sup>P</sup> ee ubivat<sup>NI</sup>.* (in this case she is still alive)  
he stopped killing her

## 5. RUSSIAN AND CZECH EXTERNAL PREFIXES

differences among particular Slavic languages with respect to external but not internal prefix usage:

- Czech external prefixes are used less often and do not act as Aspect markers but fulfill certain adverbial functions.
- Russian external prefixes mark temporal boundaries and act as Perfectivity markers on imperfective predicates.

### Slavic prefixes can be compared to:

- predicate modifiers (bare object) vs. arguments (object with strong case) (van Hout (2000))
- arguments vs. adjuncts
  - ⇒ internal prefixes identify parts of the event structure: T[E,S] / RP / BECOME (see appendix for different suggestions for the structuring of events)
  - ⇒ external prefixes are predicate modifiers

**clause is split** into the lexical domain (VP level, vP etc.) and the functional domain ((split) IP, CP) (cf. Jackendoff (1972))

- inner aspect / lexical aspect / event structure belongs to the lexical domain
- outer aspect / grammatical aspect belongs to the functional domain
  - ⇒ Internal prefixes as instances of inner aspect belong to the lexical domain.
  - ⇒ Russian external prefixes: perfectivity markers; belong to the realm of outer aspect and thus to the functional domain.
  - ⇒ Czech external prefixes fulfill adverbial functions and modify the whole event

Compare to literature on **adverbs**, e.g. Ernst (2004): Adverbs adjoin to IP, vP or VP; difference between event internal and event external modification

## 6. SLAVIC ASPECT AND MARKEDNESS

Verkuyl (forthcoming):

“[-T] [aterminativity, i.e. atelicity] is a ‘garbage can’ that covers the expression of states, negation, habituality, categoriality, iterativity, bare plurals, empty categories and the like; [+T] is carving out a unique, discernible unit that can be counted or measured”

The opposition telic – atelic “is a subordinate or privative opposition where grammatical aspect is needed as a lubricant [...] the distinction Pfv/Ipfv could be grounded on an equipollent basis after all”.

Bohnmeyer & Swift (forthcoming):

”telicity bias in viewpoint selection”: marked imperfective aspect and unmarked perfective aspect for telic predicates, but just the opposite distribution for atelic predicates.

## 7. SUMMARY

- Slavic prefixes can be divided into internal and external prefixes.
- Internal prefixes mark telicity and identify (parts of) the event structure in the lexical domain of the clause.
- External prefixes are predicate modifiers.
- Russian external prefixes are perfectivity markers in the functional domain of the clause, whereas Czech external prefixes fulfill certain adverbial functions.
- The Slavic perfective and imperfective aspect should be considered to form an equipollent opposition (i.e. both convey a positive meaning) and not a privative or subordinative opposition. The opposition atelicity – telicity, however, is a privative one.

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## APPENDIX: STRUCTURING EVENTS

### Moens & Steedman’s (1988) ‘nucleus’

“a single elementary contingency-based event structure comprising a culmination, an associated preparatory process, and a consequent state [...] any or all of these elements may be compound”

### Pustejovsky (1991): Syntax of Event Structure

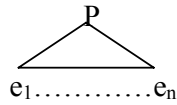
State (S): a single event, which is evaluated relative to no other event

Examples: *be sick, love, know*



Process (P): a sequence of events identifying the same semantic expression

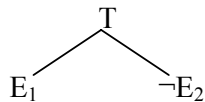
Examples: *run, push, drag*



Transition (T): an event identifying a semantic expression, which is evaluated relative to its opposition.

Examples: *give, open, build, destroy*

E is a variable for any event type (recursive type of event structure)



- (21) *The door is closed.* S – [closed (the-door)]  
*The door closed.* T[P,S] – BECOME ([closed(the-door)])  
*John closed the door.* T[P,S] – CAUSE ([ACT (j,the-door)], BECOME ([closed(the-door)]))

Event composition:

- (22) *Mary ran.* P – [run(m)]  
*Mary ran to the store.* T[P,S] – CAUSE (ACT (m), BECOME (at(m,the-store))) BY run)

**An event needs to be ‘identified’ in syntax (Grimshaw (1990))**

- Arguments (phrases in argument positions) function as event identifiers by being interpreted as participants on the event
- simple event structures (state, process) require at least one argument to be properly identified
- complex event structures (transition): two subevents need to be identified by two arguments

**Ramchand (2003): First Phase Syntax**

