

# On Slavic Semelfactives and Secondary Imperfectives: Implications for the Split ‘AspP’

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## 1 Introduction: Perfective Prefixes as Prepositions

In his recent work Svenonius (2004a,b,c) makes a strong argument for a close connection between particle verbs such as those shown in (1) and Slavic verbs with perfective prefixes, shown in (2):

- (1) a. pick the book **up**  
      b. pushed the ball **out**
- (2) a. My **pod**-njali knig-i  
      we pref-lifted1stPlbooks-pl  
      ‘We picked **up** the books.’  
      b. Dima **vy**-tolknul mjach  
      Dima out-pushed-3rdSgMsc ball  
      ‘Dima pushed **out** the ball.’

The particles ‘up’ and ‘out’ in ‘pick up’ and ‘push out’ correspond to the perfective prefixes ‘pod-’ and ‘vy-’ respectively. In addition, building on Matushansky (2002), Fowler (1994), and Ramchand and Svenonius (2002), Svenonius (2004a,b,c) shows that there are important parallels between prefixes and particles on the one hand and prepositions on the other. This is seen in (3) for English and (4) for Russian:

- (3) a. give **up** ~ **up** the tree  
      b. drop **out** ~ **out** the window
- (4) a. **iz**-bezhat’ ~ **iz** doma  
      out-run ~ out of house  
      avoid ~ out of the house  
      b. **pod**-bezhat’ ~ **pod** domom  
      under-run ~ under house-instr  
      run up to ~ under the house

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Focusing on Slavic perfectives, Svenonius (2004a) notes following Filip (2000) and Babko-Malaya (1999, 2003), that there are two types of prefixes in Slavic: VP-internal and VP-external. The VP-internal prefixes (a.k.a. lexical or low) are akin to small clause predicates, while VP-external prefixes (a.k.a. superlexical or high) are akin to adverbs. Some characteristics that distinguish the two types of prefixes are as follows. First, VP-internal prefixes are idiosyncratic, while VP-external ones have more stable meanings such as inceptive, cumulative, or distributive. From now on I will gloss the VP-external prefixes with their corresponding meaning and the VP-internal ones as ‘perf’ since their meanings are unstable. VP-external and internal prefixes may be homophonous as seen in (5) and (6):

- (5) za-begat’ / za-katat’  
 incep-run / incep-roll  
start running / start rolling **VP-external inceptive ‘za-’**

- (6) za-iti / za-brat’  
 perf-walk / perf-take  
 walk in / take away **VP-internal ‘za-’**

Second, only one VP-internal prefix can appear per verb (7) while VP-external prefixes may co-occur with each other and with the VP-internal prefixes (8):

- (7) a. vy-pisat’ / za-pisat’  
 write out / write down  
 b. \***vy-za**-pisat’ / \***za-vy**-pisat’  
 \*write down out

- (8) **po-na**-pis-iv-at’ / **po-vy**-pis-iv-at’  
 dist-cuml-write-imp-inf / dist-perf-write-imp-inf  
 to write many times / to write out (something) many times

Finally, VP-external prefixes, unlike the VP-internal ones, can combine only with imperfective stems (9) (see Svenonius 2004a,b,c for discussion).

- (9) za-brosat’ / za-brosit’  
 incep-throw(imp) / perf-throw(perf)  
 start throwing / throw up in the air / \*start throwing

The combination of the ‘za’ and a perfective stem ‘brosit’ cannot have an inceptive meaning. Only the meaning induced by the idiosyncratic low ‘za’

is available. The hierarchical layering of the VP-external prefixes, VP-internal prefixes, and the imperfective suffix proposed in Svenonius (2004a:206, 239) for a complex verb such as (10) is shown in (11):

- (10) po- v- stav- a- t'  
 dist-perf-stand-imp-inf  
 to stand up one by one
- (11) [AspP [PP(*po*) Asp(*a*)[vP [v VP[ V(*stav*) PP(*v-*)]]]]]

The correct ordering of the aspectual elements and the verbal stem is achieved by movement<sup>1</sup>.

The above analysis sheds light on the behavior of aspectual prefixes, but what about aspectual *suffixes* in Russian? These are the semelfactive perfective suffix ‘-*nu*’ shown in (12) below and the secondary imperfective suffix<sup>2</sup> ‘-*iv*’ shown in (13). The nature and the location of these suffixes is the topic of the current discussion. The paper is organized as follows. Section 2 presents the data concerning the suffixes *nu* and *iv*. Section 3 defends a proposal that the two suffixes are instantiations of the same light verb *v*. Section 4 compares the suffixes *nu* and *iv* to light verbs in Hindi, Yiddish, and Russian. Section 5 explores the implications of the proposal that there is no projection AspP in Slavic. Section 6 is the conclusion.

## 2 The Data

The Russian semelfactive suffix *nu* (*nou* in Czech, *na* in Polish) (12) has received relatively little attention in the otherwise rich literature on Slavic aspect (Forsyth 1970, Fowler 1994, Borik 2002, Svenonius 2004a,b,c, Filip 2000, 2003, Ramchand and Svenonius 2002, Ramchand 2003, 2004 Romanova 2004). The suffix presents an interesting problem as it shows striking differences from other perfective operators and unexpected, previously unobserved similarities to the secondary imperfective suffix *iv* (13).

- (12) Dima tolk-**nu**-l / stuk-**nu**-l Mish-u / pljunul  
 Dima push-nu-pst / hit-nu-pst Misha-acc / spat-nu-pst  
 ‘Dima pushed (once) / hit (once) Misha / spat.’

<sup>1</sup>Svenonius (2004a), following Taraldsen (2000), argues that prefixes combine with the stem via phrasal movement, not head movement. In this paper I adopt his view and refer the reader to Svenonius (2004a) for arguments.

<sup>2</sup>The secondary imperfective suffix ‘-*iv*’ has an allomorph ‘-*a*’. I will refer to the suffix as ‘-*iv*’ because it is the more common allomorph.

- (13) Misha pod-pryg-**iv**-al / vy-plev-**iv**-al sup  
 Misha perf-jump-imp-pst / perf-spit-imp-pst soup  
 'Misha kept jumping / spitting out the soup.'

At first, *iv* and *nu* seem different: *nu* is perfective, while *iv* is imperfective, as seen from the following perfectivity tests (Borik 2002). First, unlike *iv*-verbs, *nu*-verbs cannot get an ongoing present tense reading (14):

- (14) Oni \*pryg-**nu**-t / otpryg-**iv**-ajut  
 They jump-nu-3rdPIPrs / jump-imp-3rdPIPrs  
 'They \*(will) jump / are jumping.'

Second, they cannot be complements of *begin* / *continue*:

- (15) Dima nachal(\*pryg-**nu**-t') / podpryg-**iv**-at'  
 Dima began jump-nu-inf / jump-imp-inf  
 'Dima began to jump.'

Finally, they cannot form present participles:

- (16) \*pryg-**nu**-jushchij / pod-pryg-**iv**-ajuschij mal'chik  
 jump-nu-part / perf-jump-imp-part boy  
 'The jumping boy.'

Despite the differences, *nu*, like *iv*, is highly regular and attaches to any semantically compatible stem, unlike the idiosyncratic VP-internal perfective prefixes repeated in (17):

- (17) Dima \***na**-brosil / **vy**-brosil musor  
 Dima perf-throw / out-threw garbage  
 'Dima threw out the garbage.'

Second, like *iv*, *nu* can appear with telicizing VP-internal prefixes (18) that cannot occur with each other (19) (Svenonius 2004c, Filip 2003):

- (18) Dima vy-tolk-**nu**-l / vy-tolk-**iv**-al Mish-u iz poezda  
 Dima perf-push-nu-pst / perf-push-imp-pst Misha-acc from train  
 'Dima pushed / was pushing Misha out of the train.'

- (19) Dima \***pro-vy**-tolk-al Mishu /\***na-pro**-rezal xleb  
 Dima perf-perf-push-pst Misha-acc / perf-perf-cut bread  
 'Dima pushed Misha out / cut up / cut through the bread.'

Third, though *iv* appears with other perfectives (20), it is crucially impossible with *nu* (21).

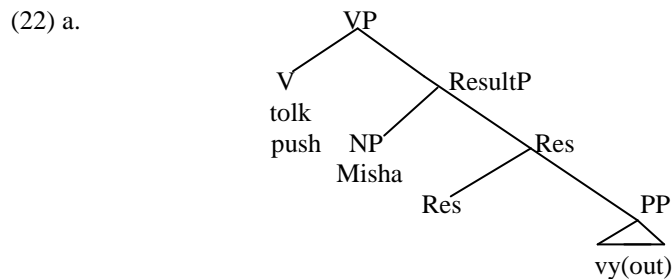
- (20) Dima vy-pis-**iv**-al        chek    / pri-smatr-**iv**-al dom  
 Dima-perf-write-imp-pst check / per-look-iv-pst house  
 'Dima wrote a check / was looking up a house.'
- (21) Dima (pod)-mig-**(\*nu)-iv**- / **-(\*iv)-nu**-al Mish-e  
 Dima perf-wink-nu-imp-past        Misha-dat  
 'Dima kept winking at Misha.'

Semantically, a combination of a *nu* and *iv* is not problematic: (21) could mean to repetitively or continuously wink. The combination is also possible phonologically. Finally, *nu* is the only perfective *suffix* in Russian, which in isolation may seem accidental, but becomes significant when considered together with the above facts.

### 3 The Proposal

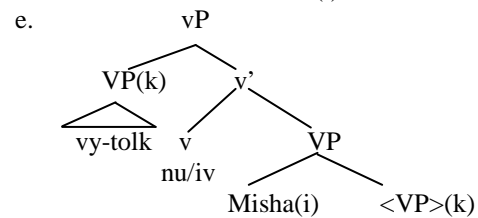
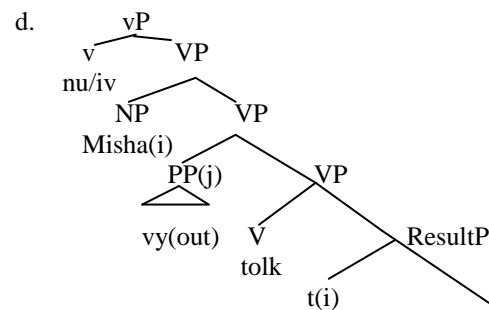
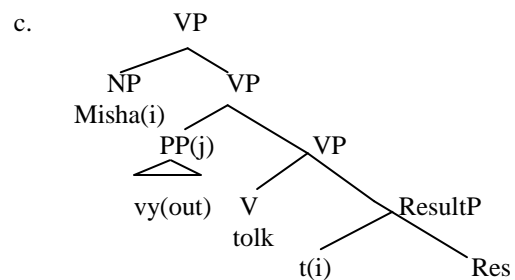
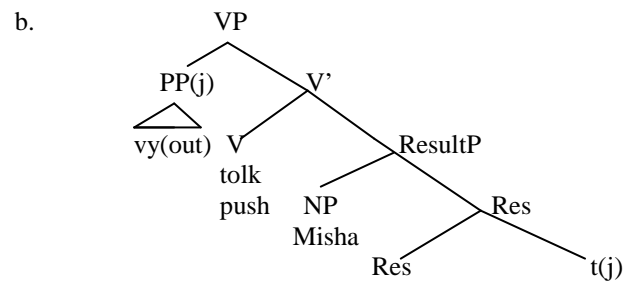
#### 3.1 What are *nu* and *iv*?

I argue that the suffixes *nu* and *iv* are two realizations of a single VP-selecting light verb *v* (Butt 2003, Diesing 1998) that denotes an atelic event and is merged above the low perfective prefix analyzed as a P (Svenonius 2004a,b,c). Whether the *v* is realized as *nu* or *iv* depends on whether it has features [+Inst] or [+Prog]/[+Hab] respectively. Since *nu/iv* spell-out a single *v* head, they cannot occur together. The initial structure of (12) and (13) is shown in (22a) with the derivation in (22 b, c, d, and e):



The movements in the above derivation proceed as follows. First, the PP moves to spec VP (22b), yielding the order [VP [PP(**vy**) [V(**tolk**)...]]. Second, the object is moved from spec ResultP to a second spec VP (22c), yield-

ing [VP NP(**Misha**) [VP [PP(**vy**) [V(**tolk**)...]]]. Third, the *v* headed by **nu/iv** is merged (22d), resulting in [vP *v*(**nu/iv**) [VP NP(**Misha**) [VP [PP(**vy**) [V(**tolk**)...]]]]. Fourth, the VP headed by V ‘tolk’ moves to spec vP (22e) (a la Svenonius 2004a,b), stranding the object. This results in [vP [VP(k) [PP(**vy**) [V(**tolk**)] *v*(**nu/iv**) [VP NP(**Misha**) [t(k)...]]]].



The external argument (not shown) is introduced by *Voi(tr)* (Kratzer 1996), a head that is distinct from the event-denoting light *v* (see Pytkänen 2002, Collins 2005 for extensive arguments).

### 3.2 Atelic perfectives?

The central claim of this paper is that semelfactives are atelic, despite being perfective<sup>3</sup>, and are thus similar to the derived imperfectives. This is supported by their inability to be modified with ‘in X time’ (23a vs. b):

- (23) a. #Dima stuknul po stolu za dolju sekundy  
           Dima knocked on table in split second  
           ‘Dima knocked on the table in a split second.’  
       b. #Dima pljunul v sup za dolju sekundy  
           Dima spat in soup in split second  
           ‘Dima spat in the soup in a split second.’

Instantaneous events denoted by the above verbs should be compatible with the modifier ‘in a split second’, but they are not.

In addition, semelfactives, like imperfectives (24) and unlike telic perfectives, cannot form passive participles<sup>4</sup> (25) (Schoorlemmer 1995):

- (24) \*Dima byl tolkaen / tolkan Mishej  
       Dima was pushed-imp / pushed-imp Misha-instr  
       ‘Dima was pushed by Misha.’  
  
 (25) Dima byl \*tolk-nu-t / **vy**-tolk-nu-t Mish-ej  
       Dima was push-nu-part / perf-push-nu-pst Misha-inst  
       ‘Dima was pushed / pushed out by Misha.’

In (25), the addition of the telicizing prefix ‘vy’ makes passive participle formation possible. Finally, semelfactives can combine with telecizing prefixes (Filip 2003) (26), which telic perfectives resist (27):

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<sup>3</sup>There are other atelic perfectives formed by the addition of perfective prefixes ‘po’ = diminutive and ‘pere’ = distributive (e.g. *po-begat* ‘to run for a while’, *pere-brat* ‘to pick one by one’). These are compatible with modifiers ‘for X time’ (see Filip 2000, 2003 for extensive discussion).

<sup>4</sup>Simplifying Schoorlemmer’s argument a bit, passive participles (the -n/t participles) cannot ever be formed from any atelic verbs because the latter lack a result state needed for passive participle formation.

- (26) Dima vy-tolk-**nu**-l     Mish-u     iz     pojezda  
 Dima perf-push-nu-pst Misha-acc from train  
 ‘Dima pushed Misha out of the train.’
- (27) Dima \*pro-vy-tolk-al     Mishu     / \*pro-na-rezal xleb  
 Dima perf-perf-push-pst Misha-acc / perf-per-cut bread  
 ‘Dima pushed Misha out / cut up the bread.’

## 4 The Suffixes *nu* / *iv* and Other Light Verbs

### 4.1 Light Verbs in Hindi

Importantly, *nu* / *iv* pattern with light verbs in other languages. For example, in Hindi light verbs affect the aspectuality of the predicate by giving different semantic ‘flavors’ to the V (Butt 2003, Butt and Ramchand 2002) such as benefactive or inceptive (28a,b). However, much like the two aspectual suffixes in Russian, light verbs in Hindi are not independent predicators (Butt 2003, Butt and Ramchand 2002, Ramchand 2003).

(Hindi, Butt 2003:11)

- (28) a. Nadya-ne xat     likh     **di**-ya  
 Nadya-erg letter write give-perfMSg  
 ‘Nadya wrote the letter (for someone).’
- b. Nadya has     **par**-i  
 Nadya laugh fall-perf-F-Sg  
 ‘Nadya burst out laughing.’

Stacking two light v’s of the same kind is not possible in Hindi (Butt and Ramchand 2002), much like what we see with *nu* and *iv*.

Interestingly, Butt (2003) notes following Deo (2002) that light verbs can be historically traced back to preverbs in Sanskrit that have directional meaning, e.g. *apa* ‘away’, *adhi* ‘above’, *nis* ‘out’, etc. The preverbs are lost in modern Hindi/Urdu languages, a fact attributed to the development of the productive V-V complexes (Deo 2002, Butt 2003). The two important points for our purposes here are: (a) preverbs are related phonologically and grammatically to perfective prefixes: *para* = *pere* ‘through’, *pra* = *pro* ‘forward / onward / forth’ (Butt 2003) and (b) preverbs are historic predecessors of light verbs (Butt 2003). Taken together, the facts offer historical support for the claim that light verbs and perfective prefixes are two dimensions of the same aspectual coin: both derive from a common ancestor, used to mark aspect in older Indo-European languages. Preverbs got lexicalized as pre-



fixes in Russian, while they remained light verbs in Hindi. It is, thus, not surprising that both light verbs and prefixes mark aspect in Slavic.

#### 4.2 Light Verbs in Yiddish

Further parallels between *nu* and *iv* and light verb constructions come from Yiddish (Diesing 1998). The Yiddish light verbs *ton* ‘do’ and *gebn* ‘give’ alter the aspectuality of the predicate they attach to by giving it a semelfactive interpretation.

- (29) Ikh vel a for ton / a kush gebn  
 I will a travel do / a kiss give  
 ‘I will travel a little / I will give a kiss.’

Diesing (1998) shows that the above light verbs are semantically bleached in that they do not have the argument structure associated with the homophonous lexical verb. For example, *gebn* requires two NP complements, but occurs with only one in the light verb construction. However, they are not entirely semantically empty as they change the flavor of the construction by minimizing (semelfacticizing) the event denoted by the lexical verb.

There are several interesting parallels between *ton/gebn* and *nu/iv*. First, both can be productively added to the verbal stem and produce a predictable meaning change. Second, both lack their own argument structure. Third, the combination of a + stem + lightV forms a unit in Yiddish, even though it does not form a single word as *nu/iv* and the stem do in Russian. The light verb complex in Yiddish cannot be broken apart by topicalization, adverbials, or scrambled NPs (Diesing 1998)<sup>5</sup>. Finally, *ton* and *gebn* cannot appear with non-eventive verbs since these verbs “resist ‘minimization’” (Diesing 1998:127).

- (30) \*Er hot a visn geton dem entfer  
 He has a know done the answer  
 ‘He quickly knew the answer.’

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<sup>5</sup>Diesing (1998) argues that the above clustering facts are due to the verbal stem incorporating into Asp headed by ‘a’ and then the two undergoing further incorporation into the light v *ton/gebn*. Thus, contrary to appearances, even though the light v is a free-standing word in Yiddish, it lacks the syntactic independence characteristic of its lexical counterparts.

According to Diesing (1998), the event argument needs to be present for a verb to be minimized, but is missing from stative verbs (Kratzer 1996). Importantly, the same is observed in Russian semelfactives (31):

- (31) \*On uznanul / ponja-nu-l otvet  
 he know-nu-pst / understand-nu-pst answer  
 ‘He quickly knew / understood the answer quickly.’

While the semelfactive *nu* is quite productive, it cannot combine with inherently stative verbs.

### 4.3 Light Verbs in Russian?

Interestingly, much like Yiddish, Russian has a light verb *davai* ‘give’, shown in (32), that means roughly ‘to suddenly start Verb-ing’<sup>6</sup>. Descriptively, *davai* is used in an imperative 2<sup>nd</sup>Sg form regardless of the features of the subject and subcategorizes for an infinitival complement. It is obligatory in a construction such as (32):

- (32) My prishli i Kuki \*(davai) begat’ tuda sjuda  
 We came-3rdPlpst and Cookie give-imper run-inf here there  
 ‘We came in and Cookie started to run back and forth.’

Interestingly, Russian has a similar construction that involves a particle *nu*, homophonous to the semelfactive suffix. It can be used interchangeably with the verb *davai* resulting in the same interpretation (33). It is also obligatory when it appears with an infinitival complement<sup>7</sup>:

- (33) My prishli i Kuki \*(nu) / \*(davai) begat’ tuda sjuda  
 We came-3rdPlpst and Cookie nu / give-imer run-inf here there  
 ‘We came in and Cookie started to run back and forth.’

<sup>6</sup>The verb also exists as an imperative, meaning ‘let’s’: *Davai poidem gul’at* = let’s go-perf walk-inf ‘let’s go for a walk’. However, this is a different usage, as it always requires a reference to the hearer, which the light verb *davai* does not. To my knowledge, *davai* in its guise as a light verb has not been described in the literature.

<sup>7</sup>When used with an inflected verb, *nu* can only be interpreted as a homophonous particle *nu* similar to the English ‘well’ or ‘so’. The particle is optional:

(i) Dima (nu) begaet tuda sjuda  
 Dima nu run3rdSgPrs here there  
 ‘(So), Dima keeps running back and forth / #Dima suddenly starts running back and forth.’

The above sentences are perfectly natural and well-formed in the context where the cat suddenly starts running back and forth.

While it is beyond the scope of the current discussion to speculate on the syntactic properties of the free-standing *nu* in Russian, several facts suggest that it is indeed a light verb. First, it requires an infinitival complement that must be imperfective, just as required by the light verbs ‘begin’ or ‘continue’ (34):

- (34) Dima *nachal* / *nu* *xvatat*’ / \**xvatal* / \**sxvatit*’ *konfety*  
 Dima started / *nu* grab-inf-inm / grabbed3rdSg / perf-grab candy  
 ‘Dima starts / suddenly starts grabbing the candy.’

Finally, though the light verb *nu* and the suffix *nu* are not entirely semantically related, they do share an important meaning component<sup>8</sup>. They both cause the verb they combine with to denote ‘quick’ or ‘sudden’ events. The light verb *nu* cannot appear with stative verbs such as ‘sleep’, ‘dream’, and ‘sit’, much like what we saw with the semelfactive *nu* (cf. 31):

- (35) \*Dima *nu* *sidet*’ *v* *komnate* / *znat*’ *otvet*  
 Dima *nu* sit-inf in room / know-inf answer  
 ‘Dima starts sitting in the room / knowing the answer.’

In sum, the parallels we observe between light verbs and the semelfactive suffix are reminiscent of the ones between perfective prefixes and prepositions (Svenonius 2004a,b,c). Both have similar, though non-identical meanings that can be traced to some common semantic core. We are thus led to a tempting conclusion that the category Asp can be eliminated from the inventory of functional heads in Slavic and reduced to the independently motivated heads P and v.

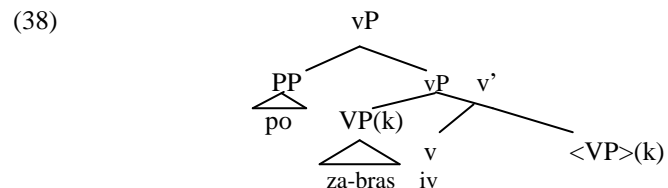
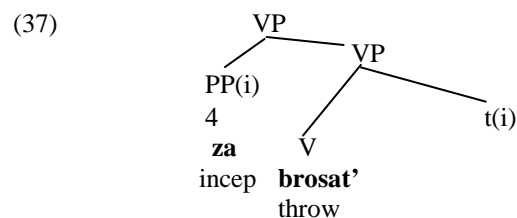
## 5 Implications

Even if the Ps and v’s encode viewpoint (outer) aspect, one may argue that we still need Asp to encode the verb’s situation aspect or aktionsart (Smith 1991/1997). I propose that we do not. Building on parallels between verbal and nominal domains (Bach 1986, Ramchand 2004), simplex imperfectives and underived perfectives can be treated as bare Vs that encode events’ aktionsart and are structurally analogous to bare NPs (Chierchia 1998) (36):

<sup>8</sup>There is no light v homophonous to the secondary imperfective suffix *iv*.

- (36) a. Dima prygal / begal / videl Mish-u  
 Dima jumped<sup>Imp</sup> / ran<sup>Imp</sup> / saw<sup>Imp</sup> Misha-acc  
 'Dima jumped / ran / saw Misha.'  
 b. Dima leg / sel  
 Dima lay down<sup>perf</sup> / sat<sup>perf</sup>  
 'Dima lay down / sat down.'

Hence, simplex imperfectives are morphologically 'underived' and compatible with *nu* (*mig-at* ~ *mig-nu-t* 'wink' ~ 'wink once'), VP-internal perfectives (*sidet* ~ *ot-sidet* 'sit' ~ 'sit out'), VP-external perfectives (*begat* ~ *za-begat* = run~start to run), and sometimes with *iv* (*xodit* ~ *xazhivat* 'walk' ~ walk periodically'). Finally, the VP-external perfectives (Filip 2000, Svenonius 2004a,b,c) also do not require Asp. They can be treated as adjoined to VP (e.g. *za-brosat* = incep-throw 'start throwing') (37) or to vP (*po-za-bras-iv-at* 'to throw one by one') (38):



The adjunction view of VP-external prefixes is supported by their separability from the stem (39), unlike what we see with the VP-internal ones (40). This view also accords with Svenonius' treatment of VP-external perfectives as adverbial in their nature.

- (39) pere ili nedo-delat' (rabotu)  
 re- or under-do-inf work  
 over or under do the work  
 (40) \*vy-ili za-pisat'  
 out or down-write  
 write out or down

## 6 Conclusion

To sum up, I have argued that *nu/iv*, despite their initial differences, occupy the same head, *v*, and have the status of light verbs. Embedded in the framework that treats prefixes as members of the category *P*, the analysis of *nu/iv* suggests that aspect in Slavic is generally reducible to *Ps* and *v*'s. Importantly, we are not just renaming *Asp P* or *v*. While treating prefixes as *Ps* allows us to unify them with Germanic particles (Svenonius 2004a,b,c, Ramchand and Svenonius 2002), treating aspectual suffixes as *v*'s allows us to unify them with light verbs in languages such as Hindi, Yiddish, and Russian. The overall conclusion that emerges from the proposal is that though the perfective / imperfective aspectual distinction in Slavic is a real one, it is semantic in nature, and is not due to the [+/- perfective] feature of an Aspect head. The syntactic correlate of (im)perfectivity is 'distributed' among different heads. In Slavic, and arguably, universally, *Asp*, like *C* is a collocation of syntactic heads (Rizzi 1997), but is not itself a head.

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