

# Chapter 3

## Delimitatives, diminutive-iteratives and the secondary imperfective in North Slavic

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This paper is concerned with diminutive-iterative verbs, delimitative verbs with the prefix *po-* and the secondary imperfective suffix. It is argued that diminutive-iterative *po*-verbs are derivationally based on delimitative predicates. Further, the secondary imperfective suffix is not an undifferentiated element. It is argued that the two instances of the imperfectivizing suffix – the iterative one and the progressive one – merge in distinct structural positions and that the delimitative prefix *po-* occurs between them. In the derivation of diminutive-iteratives, delimitative *po-* selects a predicate with a scalar structure and the Davidsonian event variable and contributes an extensive measure function to the base predicate. The iterative *-yva*, with its pluractional semantics, then iterates the eventuality denoted by the *po*-predicate.

### 1 Introduction

This section introduces diminutive-iterative *po*-verbs, delimitative *po*-verbs and secondary imperfective verbs and briefly overviews their morphosyntactic and semantic properties relevant to the analysis pursued in following sections.

#### 1.1 Diminutive-iterative verbs

As to their form, diminutive-iterative verbs contain the prefix *po-* and the imperfectivizing/iterative suffix *-yva*, as shown in (1) for Russian, in (2) for Polish, and



in (3) for Czech (see also Švedova 1980: 600, Katny 1994: 66–70, and Petr 1986: 398). In what follows, I will use -yva as a shorthand that also stands for other allomorphs, e.g. in Russian, it stands for the allomorphs -yva/-iva, -va and -a.

- (1) po-lěž-iva-t'  
DEL-lie-ITER-INF  
'to lie from time to time' (Russian)
- (2) po-plak-iwa-ć  
DEL-cry-ITER-INF  
'to cry from time to time' (Polish)
- (3) po-sed-á-va-t  
DEL-sit-TH-ITER-INF  
'to sit from time to time' (Czech)

Concerning morphological (grammatical/viewpoint) aspect properties, diminutive-iterative *po*-verbs are always imperfective. With respect to their meaning, diminutive-iteratives are usually described as denoting a short action (with low intensity) that is repeated several times; see e.g. Zaliznjak & Šmelev (1997: 103) for Russian, Czochralski (1975: 23) for Polish and Karlík et al. (1995: 194, 209) for Czech. The action does not have to be repeated regularly and the iterative suffix brings about an unspecified number of instances of the particular eventuality. Typically, the number of repetitions depends on the context.

## 1.2 Secondary imperfective verbs

Secondary imperfective verbs contain an -yva allomorph, which derives imperfective predicates from perfective stems, as shown in examples (4), (5) and (6). Crucially, -yva allomorphs used in formation of diminutive-iterative verbs are identical to the -yva allomorphs used in secondary imperfective verbs.

- (4) a. za-pis-a-t'<sup>PFV</sup>  
behind-write-TH-INF  
'to write down'
- b. za-pis-yva-t'<sup>IPFV</sup>  
behind-write-SI-INF  
'to write down'
- 'to be writing down' (Russian)

- (5) a. pod-pis-a-ć<sup>PFV</sup>  
below-write-TH-INF  
‘to sign’  
b. pod-pis-ywa-ć<sup>IPFV</sup>  
below-write-SI-INF  
‘to sign’  
‘to be signing’ (Polish)
- (6) a. vy-ps-a-t<sup>PFV</sup>  
out-write-TH-INF  
‘to excerpt’  
b. vy-pis-ova-t<sup>IPFV</sup>  
out-write-SI-INF  
‘to excerpt’  
‘to be excerpting’ (Czech)

Secondary imperfective verbs can have (at least) four meanings. 1. progressive, expressing that a certain eventuality is in progress; 2. iterative, which expresses the successive occurrence of several instances of a certain eventuality; 3. habitual (generic), which describes an eventuality that is characteristic of an extended time period; and 4. general-factual, which typically refers to a realized or even completed eventuality (in a fashion similar to perfective verbs); see e.g. Comrie (1976: 24–40), Dahl (1985: 75–102), Dickey (2000: 49–125), Grønn (2004: 22–30), Timberlake (2004: 417–424) and Petruxina (2011: 64–76). This article is concerned with the progressive and iterative meanings.

### 1.3 Delimitative verbs

Delimitative verbs are formed with the help of the delimitative prefix *po-* and with the reduplicated form *popo-* in the case of motion verbs in Czech, as demonstrated by (7), (8), and (9). The prefix is adjoined to an unprefixed, imperfective stem and derives a perfective predicate, as shown in the examples under discussion.

- (7) a. čit-a-t<sup>IPFV</sup>  
read-TH-INF  
‘to read’  
‘to be reading’

- b. po-čit-a-t'<sup>PFV</sup>  
DEL-read-TH-INF  
'to read for a while' (Russian)
- (8) a. siedzi-e-ć<sup>IPFV</sup>  
sit-TH-INF  
'to sit'  
'to be sitting'
- b. po-siedzi-e-ć<sup>PFV</sup>  
DEL-sit-TH-INF  
'to sit for a while' (Polish)
- (9) a. nés-t<sup>IPFV</sup>  
carry-INF  
'to carry'  
'to be carrying'
- b. popo-nés-t<sup>PFV</sup>  
DEL-carry-INF  
'to carry sth. a little' (Czech)

As to the meaning, the prefix delimits the eventuality denoted by the base predicate. Typically, it is a temporal delimitation, as in (7b) and (8b), but a property scale and a path scale can be delimited, too, as shown in (9b) for the path scale.

Delimitative *po*-verbs are standardly claimed to be perfectiva tantum, i.e. they do not form secondary imperfectives; see Isačenko (1962: 391), Kopečný (1962: 110), Zaliznjak & Šmelev (1997: 94), and Łaziński (2020: 77). Thus, e.g. the delimitative verbs in (10a), (11a), and (12a) cannot be imperfectivized and receive a progressive delimitative meaning, as shown by the second translations in examples (10b), (11b), and (12b). The *po*-verb-YVA forms in the (b) examples can only have the diminutive-iterative meaning, as demonstrated by the first translations.

- (10) a. po-čit-a-t'<sup>PFV</sup>  
DEL-read-TH-INF  
'to read for a while'
- b. po-čit-yva-t'<sup>IPFV</sup>  
DEL-read-ITER-INF  
'to read from time to time'  
*Unavailable reading*: 'to be reading for a while' (Russian)

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- (11) a. *po-plak-a-ć*<sup>PFV</sup>  
DEL-cry-TH-INF  
'to cry for a while'  
b. *po-plak-iwa-ć*<sup>IPFV</sup>  
DEL-cry-ITER-INF  
'to cry from time to time'  
*Unavailable reading*: 'to be crying for a while' (Polish)
- (12) a. *popo-nés-t*<sup>PFV</sup>  
DEL-carry-INF  
'to carry sth. a little'  
b. *popo-náš-e-t*<sup>IPFV</sup>  
DEL-carry-ITER-INF  
'to carry sth. from time to time'  
*Unavailable reading*: 'to be carrying a little/for a while' (Czech)

I leave attenuative *po*-verbs like the Russian *poprideržat* 'to hold gently' aside in this article because the attenuative *po*- and the delimitative *po*- behave as two distinct elements morphosyntactically.<sup>1</sup> While the attenuative *po*- selects perfective stems that are prefixed, delimitative *po*-verbs are derived from the base, imperfective stems (see e.g. Isačenko 1962: 391, 396, Zaliznjak & Šmelev 1997: 101, Petr 1986: 398). Further, in Czech, the delimitative *po*- often adds a dative reflexive argument that is licensed by the agent and is obligatory.<sup>2</sup> In contrast, attenuative *po*-verbs can have the dative *si* 'self' but it is never obligatory. In addition, the two types of *po*-verbs behave differently with respect to the formation of secondary imperfectives. As discussed in the preceding paragraph, delimitative *po*-verbs are considered to be perfectiva tantum. The authors mentioned there do not discuss whether or not attenuative *po*-verbs can be imperfectivized but (at least some) *po*-attenuatives form secondary imperfectives; e.g. Russian *poprideržat* 'to hold

<sup>1</sup>This contrasts with the semantic analysis by Součková (2004a,b) and Kagan (2016), who treat the two types of *po*- prefixes as one and the same semantic element, measuring degrees on a scale. Note that an analysis with two distinct morphosyntactic *po*-s does not preclude the possibility that the two prefixes have identical or very similar semantic properties.

<sup>2</sup>Consider e.g. (i) and the discussion of (23b) in Section 2. The most straightforward analysis would introduce the dative *si* 'self' in the specifier of the delimitative *po*- projection, where the argument is c-commanded by the agent placed in the specifier of VoiceP.

(i) *Strejda \*(si) po-lyžoval a odjel domů.*  
uncle self DEL-skied and went home  
'My uncle skied for a while and went home.' (Czech)

gently’ derives the imperfective form *popriderživat’* ‘to hold gently/to be holding gently’. Tatevosov (2009: 96) and Klimek-Jankowska & Błaszczak (2022: 7–9, 2024: ex. (85), (92)) place the Russian and Polish, respectively, attenuative *pod-* below the imperfectivizing *-yva*. If the attenuative *po-* behaves in the same way, then attenuative *po-*verbs should be able to undergo secondary imperfectivization. Given that the attenuative *po-* selects a perfective stem, it must belong to positionally restricted prefixes in terms of Tatevosov (2009), which means that it merges below the imperfectivizing *-yva*.

The remainder of the article is structured as follows. Section 2 argues that diminutive-iterative *po-*verbs are derived from delimitative predicates. Section 3 then offers a morphosyntactic and semantic analysis with the relevant derivational steps. Section 4 concludes the article.

## 2 Diminutive-iterative verbs are derived from delimitative predicates

Recall from the preceding section that both delimitative and diminutive-iterative verbs contain the prefix *po-* and include a delimited degree scale. Given this and the imperfectivizing and iterative effects of *-yva* in diminutive-iterative verbs, a natural idea is that diminutive-iteratives, as in (13b), are derived by applying the imperfectivizing *-yva* to the delimitative predicate, as in (13a).

- (13) a. *po-lež-a-t’*  
DEL-lie-TH-INF  
‘to lie for a while’  
b. *po-lěž-iva-t’*  
DEL-lie-ITER-INF  
‘to lie from time to time’ (Russian)

Besides the morphological, semantic and aspectual arguments, there are also phonological facts which support such an analysis. Suffixes used in the derivation of diminutive-iteratives are identical with *-yva* allomorphs used in the “standard” secondary imperfectivization. Also phonological processes involved in the formation of diminutive-iterative *po-*verbs are identical with phonological processes involved in the derivation of “standard” secondary imperfectives. Compare the diminutive-iterative example (14) with the secondary imperfectivization example in (15). In both examples *-yva* shifts the accent from the theme to the root vowel and in both roots, we also observe the vowel gradation (lengthening)

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from /o/ to /a/.<sup>3</sup> Consider also (13), which displays a vowel gradation in the root, too, and which also manifests the accent shift from the theme to the root.

- (14) a. po-kol-ó-t'<sup>PFV</sup>  
DEL-prick-TH-INF  
'to prick a little'
- b. po-kál-yva-t'<sup>IPFV</sup>  
DEL-prick-ITER-INF  
'to prick from time to time' (Russian)
- (15) a. s-pros-í-t'<sup>PFV</sup>  
with-ask-TH-INF  
'to ask'
- b. s-práš-iva-t'<sup>IPFV</sup>  
with-ask-SI-INF  
'to ask'  
'to be asking' (Russian)

The Polish examples in (16) and (17) show that in formation of both diminutive-iteratives and ordinary secondary imperfectives, /j/ is inserted to block hiatus.

- (16) a. po-pi-ć<sup>PFV</sup>  
DEL-drink-INF  
'to drink a little'
- b. po-pi-ja-ć<sup>IPFV</sup>  
DEL-drink-ITER-INF  
'to drink from time to time' (Polish)
- (17) a. wy-bi-ć<sup>PFV</sup>  
out-beat-INF  
'to kill off'
- b. wy-bi-ja-ć<sup>IPFV</sup>  
out-beat-SI-INF  
'to kill off'  
'to be killing off' (Polish)

A hiatus-blocking process is also present in the Czech examples in (18) and (19). This time, /v/ is inserted between the theme vowel -a and the imperfectivizing -a

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<sup>3</sup>The accent is represented with the diacritic length mark.

(according to the standard analysis, /v/ is the imperfectivizing suffix itself; see e.g. Karlik et al. 1995: 194; consider also Matushansky's 2009: 397 unifying analysis of imperfectivizing suffixes in Russian, arguing that /v/ derives from an underlying back rounded yer). In addition, both examples also display a lengthening of the theme after adding the imperfectivizing suffix.

- (18) a. po-kašl-a-t<sup>PFV</sup> si  
DEL-cough-TH-INF self  
'to cough a little'
- b. po-kašl-á-va-t<sup>IPFV</sup>  
DEL-cough-TH-ITER-INF  
'to cough from time to time' (Czech)
- (19) a. při-děl-a-t<sup>PFV</sup>  
at-do-TH-INF  
'to fix'
- b. při-děl-á-va-t<sup>IPFV</sup>  
at-do-TH-SI-INF  
'to fix'  
'to be fixing' (Czech)

However, the standard literature does not adopt the analysis in which diminutive-iterative *po*-verbs are derived from delimitative predicates (see e.g. Isačenko 1960: 279–282, 1962: 407, Švedova 1980: 600, Zaliznjak & Šmelev 1997: 94, 104). According to them, delimitatives like (13a) are perfectiva tantum, diminutive-iteratives like (13b) are imperfectiva tantum and the verbs belong to different Aktionsarten: delimitative and diminutive-iterative. The authors claim that diminutive-iteratives are derived by circumfixation of *po*- and -yva to the imperfective simplex predicate, i.e. to *ležat* 'to lie' in the case of (13b) (see Katny 1994: 58ff. and Petr 1986: 419 for analogous claims with respect to Polish and Czech). This means that there is a strange coincidence. Both types of verbs have *po*- and some sort of a delimitative/diminutive meaning and the perfective verbs with the delimitative *po*- do not have a secondary imperfective counterpart and the imperfective verbs with *po*- (and -yva) do not have a perfective counterpart. Tatevosov (2009: 133–134) shows that Isačenko's (1960) arguments are not strong enough and argues that there is a clear (derivational) relation between the existence of delimitative *po*-verbs and the existence of diminutive-iterative *po*-verbs in Russian.



The generative literature places delimitative *po-* and the imperfectivizing *-yva* in different structural positions. The delimitative prefix is mostly higher than *-yva*; see e.g. Romanova (2004: 271–272), Tatevosov (2008: 437–438) and Klimek-Jankowska & Błaszczak (2022: 9, 2024: ex. (85), (92)) (but see also Součková 2004a: 408–409, who assumes circumfixation, and Jabłońska 2004: 377–381, who proposes two positions for *po-*, below and above *-yva*). This placement has the advantage that it can account for why delimitative verbs are not (progressively) imperfectivized. However, it brings about two scope problems. First, it makes a false prediction with respect to morphological aspect. Given the position of the prefix being higher than *-yva*, one expects diminutive-iterative verbs to be perfective contrary to the facts; see Section 1.1 again. Second, if the delimitative prefix scoped over *-yva*, one would expect an interpretation with the repetition of standard actions in a delimited/short time frame, again contrary to the facts. For instance, in example (10b), repeated here as (20), one should receive a repetition of (normal) actions of reading in a short time frame.

- (20) *po-čit-yva-t'*  
DEL-read-ITER-INF  
'to read from time to time' (Russian)

However, (20) is interpreted as a repetition of short actions of reading. This indicates reversed scope properties, with *-yva* being higher than *po-*.

Generally, there are three possibilities for how to derive diminutive-iterative *po*-verbs from *po*-delimitatives, as schematized in (21).

- (21) a. [*po-* ... [*-yva* ... [...  $\sqrt{\text{root}}$ ]]]  
b. [*-yva* ... [*-po-* ... [...  $\sqrt{\text{root}}$ ]]]  
c. [*-yva* + *po-* ... [...  $\sqrt{\text{root}}$ ]]]

The first possibility, as just discussed, makes wrong predictions with respect to interpretational possibilities and morphological aspect properties. Thus, since diminutive-iteratives are imperfective and since morphological aspect is determined by the last (highest) aspectual morpheme (e.g. Karcevski 1927: 96, Vinogradov 1947: 500, Dostál 1954: 482, Isačenko 1962: 416–418, Zinova & Filip 2015: 601–602, Tatevosov 2020: 28, Zinova 2021: 36–38, Biskup 2024: 55–61), the second option, shown in (21b), is preferred over the first possibility in (21a). Note that the delimitative *po-* cannot attach to the predicate after the imperfectivizing *-yva* because there are no exceptions to the perfectivizing effect of prefixation (Smith

1997: 242); there are only apparent exceptions (e.g. Schuyt 1990: 292, Zaliznjak & Šmelev 1997: 67–68, Zaliznjak 2017: 4–6).<sup>4</sup>

Given that interpretational properties of diminutive-iterative verbs are correctly derived by (21b), in contrast to (21a), the second option is preferred over the derivation in (21a) more generally. As to the circumfixation derivation in (21c), this option is generally disfavored, especially if both affixes exist independently (see e.g. Marušič 2023), as is the case with diminutive-iterative *po*-verbs. What is more, there is no reason to assume the special operation of circumfixation when (21b) successfully derives the relevant facts.

Since diminutive-iterative *po*-verbs cannot receive the progressive delimitative interpretation, only the iterative interpretation, as in (10b), (11b) and (12b), I assume that the iterative -YVA differs from the progressive -YVA with respect to their structural position. The progressive -YVA is generated below the delimitative *po*- and the iterative -YVA merges above the delimitative prefix, as illustrated in (22) (see Ramchand 2004: 33, who proposes that -YVA can occur in two different projections: Asp and Cuml).

(22) [ ...Iter -YVA ... [ ... Del *po*- ... [ ... Prog -YVA ... [ ... √root]]]]

An argument against diminutive-iteratives derived from delimitatives could be based on the fact that there are derivational chains with missing links (see e.g. Součková 2004a: 409). Specifically, in contrast to the Russian *pokašljat* ‘to cough a little’ and the Polish *pokaszleć/pokasłać* ‘to cough a little’, Czech (and Slovak) do not have the middle step of the derivational chain *pokašlat* (there is only *pokašlat si*), as shown in (23b).<sup>5</sup>

(23) a. kašl-a-t  
cough-TH-INF  
‘to cough’

<sup>4</sup>Zinova & Filip (2015: 605–607) argue that iterative *pere*- and attenuative *po*- do not have to perfectivize in Russian. They assume that imperfectives like *perezapisyvat* ‘to (be) rerecord(ing)’ can be derived by attaching *pere*- to the imperfective *zapisyvat* ‘to (be) record(ing)’. Their supporting argument is however based on borrowings, which are known to be anomalous in various respects. Specifically, when the prefixes discussed attach to a borrowed biaspectual verb, the new verb is still biaspectual like *perekvalificirovat* ‘to requalify’. A comparison with other languages suggests that in Russian the verb is not adapted enough to the language system to be able to accept the perfectivizing effect of the prefix. In contrast, the Czech *překvalifikovat* ‘to requalify’ is already perfective and there is also its imperfective counterpart *překvalifikovávat*.

<sup>5</sup>The Polish situation is somewhat controversial but *pokaszleć/pokasłać* can be found in *Wielki słownik języka polskiego* (Żmigrodzki 2022).

- b. \* po-kašl-a-t  
DEL-cough-TH-INF
- c. po-kašl-á-va-t  
DEL-cough-TH-ITER-INF  
'to cough from time to time' (Czech)

Such an argument, however, is valid only if we assume a lexicalist framework, in which verbs like diminutive-iteratives are derived from complete word forms (see e.g. the definition of derivational chains in Zinova & Filip 2015: 601-602). In morphosyntactic approaches like the one assumed here verbs are derived incrementally, morpheme by morpheme, in a bottom-up fashion, not by attaching the imperfectivizing *-va* in (23c) to the complete verb *\*pokašlat*.

The same also holds for other morphemes in derivational chains, e.g. prefixes. Hence, *vypisat* 'to excerpt' in (24a) is not derived by prefixation of *vy-* to the complete verb *pisat* 'to write' since in the morphosyntactic approach assumed here, prefixes typically merge before the tense morpheme (infinitival *-t* in (24)) and in certain cases also before the theme marker.<sup>6</sup>

- (24) a. vy-pis-a-t'  
out-write-TH-INF  
'to excerpt'
- b. pis-a-t'  
write-TH-INF  
'to write'

To conclude this section, the imperfectivizing marker *-yva* can appear in different structural positions and consequently, it can spell out distinct semantic properties.

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<sup>6</sup>An analogous reasoning also applies to disappearing elements, e.g. *si* 'self' in (i). One might argue that in cases like (i), incrementality is violated because *si* does not have to be present in (i.c), in contrast to (i.b). Again, since the verb in (i.c) is not derived from the complete verb with *si* in (i.b), there cannot be disappearing *si* in (i.c).

- (i) a. křič-e-t  
shout-TH-INF  
'to (be) shout(ing)'
- b. po-křič-e-t                   \*(si)  
DEL-shout-TH-INF   self  
'to shout a little for oneself'
- c. po-křik-ova-t               (si)  
DEL-shout-ITER-INF   self  
'to shout from time to time' (Czech)

### 3 Analysis

In what follows, I elaborate the proposal from the preceding section, first from the semantic perspective, then from the syntactic point of view.

#### 3.1 Combining *po-* and the verb stem

According to Isačenko (1962: 392), there are several restrictions on the formation of delimitative *po*-verbs. The restrictions are found not only in Russian, as shown in (25), (26) and (27). At least partially, they can be accounted for if it is assumed that the delimitative prefix needs a scale (for scale (degree) approaches to *po*- see Filip 2000, 2003; Jabłońska 2004, Součková 2004a,b; Kagan 2016 and Zinova 2021).

- (25) \* *po-zyskać*  
DEL-win  
Intended: ‘to win for a while’ (Polish)
- (26) \* *po-bodnout*  
DEL-stab  
Intended: ‘to stab for a while’ (Czech)
- (27) \* *po-stoit’*  
DEL-cost  
Intended: ‘to cost for a while’ (Russian)

Given that achievements denote a momentaneous change of state, there is no (protracted) scale that could be delimited by the prefix and cases like (25) are ungrammatical.<sup>7</sup> In the same vein, since semelfactive verbs denote punctual eventualities, the delimitative *po-* cannot measure them and examples like (26) are ungrammatical as well.

An interesting case is stative predicates like the one in (27), which also cannot be prefixed with the delimitative *po-*. The ungrammatical status cannot be ascribed to the fact that a temporal extent scale is missing because the base predicate of such states can be modified by durative adverbials, as is the case e.g. with Russian *znat’ kogo tri dnja* ‘to know somebody for three days’. The reason also cannot be the homogeneity requirement of delimitative *po-* (Filip 2000: 61, 2003:

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<sup>7</sup>The so-called degree achievements are known for their special behavior; they provide an appropriate change-of-state scale.

91; Mehlig 2006: 247) because states are homogeneous. Atelicity does not play a role either because states are atelic and other atelic predicates – e.g. activities like the Polish *plakać* ‘to cry’ – can be prefixed with delimitative *po-*. So, one might argue that the problem lies in the concept of change because stative predicates do not entail a change, in contrast to dynamic predicates (activities, accomplishments and achievements). However, this reasoning is not correct, either, since there are also states that can be prefixed with the delimitative *po-*; consider the examples (28), (29) and (30).

(28) Russian

- |                                   |                                |                                 |
|-----------------------------------|--------------------------------|---------------------------------|
| a. <i>po-stojat'</i><br>DEL-stand | b. <i>po-sidet'</i><br>DEL-sit | c. <i>po-spat'</i><br>DEL-sleep |
|-----------------------------------|--------------------------------|---------------------------------|

(29) Polish

- |                                |                                  |                                |
|--------------------------------|----------------------------------|--------------------------------|
| a. <i>po-stać</i><br>DEL-stand | b. <i>po-siedzieć</i><br>DEL-sit | c. <i>po-spać</i><br>DEL-sleep |
|--------------------------------|----------------------------------|--------------------------------|

(30) Czech

- |  |   |  |
|--|---|--|
| a. <i>po-stát</i><br>DEL-stand<br>‘to stand for a while’ | b. <i>po-sedět</i><br>DEL-sit<br>‘to sit for a while’ | c. <i>po-spat</i><br>DEL-sleep<br>‘to sleep for a while’ |
|--|---|--|

The unprefixed verbs in (28)–(30) belong to the class of “interval statives” (Dowty 1979: 173–180) and differ from “static states” (Bach 1986: 6) like ‘to know’, ‘to own’ and ‘to cost’, which are less dynamic and do not accept the delimitative *po-* in North Slavic. Maienborn (2003, 2005) analyzes dynamic states like ‘to stand’ as “Davidsonian states” because they refer to eventualities in the sense of Davidson, so they introduce a Davidsonian event argument. In contrast, static states belong to “Kimian states” in her analysis. They do not have a Davidsonian event variable but introduce a specific Kimian-state referential argument. In fact, the German modifier *ein bisschen* ‘a little bit’ distinguishing Davidsonian states from Kimian states in her eventuality diagnostic (Maienborn 2005: 297–299) behaves like delimitative *po-* with respect to grammaticality judgements. Here I follow Maienborn’s proposal and assume that delimitative *po-* selects a predicate with a Davidsonian event argument (that in addition has some scalar structure, as discussed above).

According to Filip (2000: 61–66, 2003: 89–90), delimitative *po-* applies to a homogeneous predicate and contributes an extensive measure function, which is contextually specified and meets or falls short of some contextually determined

expectation value. Součková (2004a: 410, 2004b: 73) modifies Filip's proposal and argues that the measure function only applies to events, as shown in (31).<sup>8</sup>

$$(31) \quad \llbracket po- \rrbracket = \lambda P \lambda e [P(e) \wedge m(e) = c_{\text{relatively, small}}]$$

$P$  is a variable over predicates,  $m$  stands for the extensive measure function applied to an event and  $c$  means that its value is contextually determined. The function  $m$  measures events that contain some scalar structure, concretely, it measures the degree of change on the appropriate scale and it can apply to various dimensions (types of scales). It depends on lexical properties of the particular verb, which dimension – if at all; recall the discussion of achievements and semelfactives in (25) and (26) – is accessible. For instance, in the case of motion verbs, there is a scale of progress along the path; in degree achievements, there is an increase in the degree on a property scale; but in most cases, the prefix is applied to a time scale. Note, however, that it is not possible to reduce all delimitative cases to the time scale and that particular scales do not have to coincide with respect to the degree of change. For instance, in the case of Czech *poponést* 'to carry sth. a little' in (9b), it is the progress on the appropriate path that is measured and the relatively small value of this progress (the short path) can be in contrast to the duration of the carrying eventuality, which under appropriate circumstances can even be very long.

As just mentioned, (31) states that the value of the measure function is relatively small in the context. I use the equal relation in (31) instead of the less-than-or-equal relation (in contrast to e.g. Kagan 2015: 47, 2016: 310; Klimek-Jankowska & Błaszczak 2024: ex. (68)) since it directly brings about the quantization property of *po*-delimitatives, necessary for iteration, as discussed in the following section. More concretely, if a delimited event of crying takes five minutes in the specific context, i.e. the value of the measure function is contextually determined to be equal to five minutes, then there will be no proper part of the event that also falls in the denotation of this crying *po*-predicate. In contrast, if the less-than-or-equal relation were used in (31), there could be a proper part – e.g. crying for just four minutes – falling in the denotation of the crying *po*-predicate.

Thus, building on Součková's proposal, the meaning of the Polish *poptaka(ć)* 'to cry for a while' – after applying the delimitative prefix *po-* to the predicate *plaka(ć)* 'to cry' – will look like (32).

<sup>8</sup>The proposal that the measure function applies to events can be already found in Piñón (1994: 362–363). Součková (2004a,b) also argues that the prefix can also apply to non-homogeneous predicates since she unifies delimitative *po-* and the attenuative *po-*. Given that I keep the two prefixes apart (see Section 1.3), I assume that the delimitative *po-* applies to homogeneous predicates. The attenuative *po-* then probably only applies to non-homogeneous predicates, as in the case of the Russian *poprideržat'* 'to hold gently'.

$$(32) \quad \llbracket po-plaka- \rrbracket = \lambda e[\text{CRY}(e) \wedge m(e) = c_{\text{relatively.small}}]$$

Given the meaning in (31), with  $P$  as a predicate over events and the measure function applied to an event, it is obvious that delimitative *po-* cannot combine with states like *stoit* ‘to cost’ in (27), which only have the Kimian-state referential argument.

### 3.2 Combining the delimitative *po*-predicate and the iterative -yva

According to the proposal in Section 2, diminutive-iteratives are derived from delimitative predicates in the way that the eventuality delimited/measured by *po-* is iterated by means of -yva. In other words, delimitative *po-* is responsible for individuation and the iterative -yva then for pluralization. Thus, given that for iteration and counting, discrete elements are necessary, the question arises as to which concept is responsible for the individuation here. Is quantization sufficient or is telicity necessary as well? According to Filip (2003: 91), delimitative *po-* (“attenuative” in her terms) makes predicates not only quantized, analogously to measure functions like *a (relatively) small quantity* and *a few*, but also telic given her definition of telicity based on atomicity (see Filip 2003: 60–61). However, if the standard adverbial test is a reliable diagnostic for (a)telicity, then delimitative *po*-verbs must be atelic because they are compatible with durative adverbials like ‘an hour (long)’ and incompatible with time-span adverbials like ‘in an hour’ in the relevant reading. In the light of grammatical diminutive-iteratives like *polěživat* ‘to lie from time to time’ in (1), that in turn means that quantization brought about by an extensive measure function like the delimitative *po-* is sufficient for applying the iterative -yva- and that telicity is not a necessary condition in this case.

As mentioned in Section 1.1, the iterative marker brings about an unspecified number of instances of the particular eventuality and the cardinality of repetitions is contextually determined. Since it is difficult to determine the smallest number of repetitions here, I assume the weakest position and use the meaning of plurals as a base. This means that the cardinality of the iterated eventuality is greater than one, as shown in (33), where  $|e|$  stands for the number of atomic events.

$$(33) \quad \llbracket \text{ITER} \rrbracket = \lambda P \lambda e [P(e) \wedge e = \sigma e' [P(e') \wedge e' \subset e \wedge |e| > 1] \wedge \forall e' [\text{ATOM}(e') \rightarrow \neg \exists e'' [P(e'') \wedge e'' \subset e \wedge \text{ATOM}(e'') \wedge \tau(e') \supset \tau(e'')]]]$$

For deriving pluralities, usually, Link’s (1983)  $\sigma$ -operator and the  $*$ -operator are used. Therefore, for the iterative -yva, I use Kratzer’s proposal (Kratzer 2008:

296, see also Boneh & Doron 2008: ex. (31) and Ferreira 2016: 358), according to which the sum of all events  $e'$  that are proper parts of the event  $e$  and have the property  $P$  is identical to  $e$ . Since it brings about a weak notion of plurality, with singularities as special cases, I also use the conjunct  $|e| > 1$  in (33), as discussed above.

The iterated events are not temporally adjacent, e.g. the meaning of the Polish *popłakiwać* ‘to cry from time to time’ in (2) is characterized by Żmigrodzki (2022) as *plakać z przerwami* ‘to cry with pauses’ (see also Katny 1994: 67). For this reason, I add to the meaning in (33) the restriction on temporal traces. Specifically, for every atomic proper part  $e'$  of the event  $e$ , it holds that there is no atomic subevent  $e''$  with the property  $P$  that is a proper part of  $e$  and whose temporal trace abuts with the temporal trace of  $e'$ . Under the assumption that the abut relation (precluding any contact) is stronger than the overlap relation, it holds that if the temporal traces of  $e'$  and  $e''$  do not abut, then they also do not overlap. The size of the time interval between  $e'$  and  $e''$  is not defined here since it depends on the lexical meaning of the appropriate predicate and on the context. Moreover, intervals between the particular subevents can be of different sizes.

I do not use the classical non-overlap condition by Lasersohn (1995: 256) (see also e.g. Wood 2007: 126), with the function  $f$  standing for temporal, spatio-temporal or participant-based distributivity, since in the case of diminutive-iterative *po*-verbs, participants and spaces can overlap. As an illustration, consider example (34), in which the referent of the expression *Kasia* is identical for the crying subevents.<sup>9</sup> The crying subevents of example (34) also can (but do not have to) happen in an identical space.

- (34) *Kasia cały dzień po-plak-iwa-ł-a.*  
*Kasia* whole day DEL-cry-ITER-PTCP-F  
 ‘Kasia cried repeatedly the whole day.’ (Polish)

To receive the separated-in-time reading, Lasersohn (1995: 254) adds a betweenness condition to the non-overlap condition, which introduces a time that intervenes between temporal traces of the singular events. I do not follow his proposal because I assume that the time variable is introduced by the aspectual head later in the derivation. Instead of the betweenness and non-overlap conditions, I use the abut condition, as stated in (33).

When the meaning of the iterative operator is applied to the meaning of the delimitative predicate *popłaka(ć)* in (32), we obtain a diminutive-iterative predicate over events, as demonstrated in (35).

<sup>9</sup>With plural subjects, distributive readings are possible but not necessary.



$$(35) \quad \llbracket \text{popłakiwa-} \rrbracket \\ = \lambda e [\ast \text{CRY}(e) \wedge m(e) = c_{\text{relatively.small}} \wedge e = \sigma e' [\ast \text{CRY}(e') \wedge m(e') = \\ c_{\text{relatively.small}} \wedge e' \subset e \wedge |e| > 1] \wedge \forall e' [\text{ATOM}(e') \rightarrow \neg \exists e'' [\ast \text{CRY}(e'') \wedge m(e'') = \\ c_{\text{relatively.small}} \wedge e'' \subset e \wedge \text{ATOM}(e'') \wedge \tau(e') \supset \tau(e'')]]]]$$

Thus, having established the meaning of iterative -YVA, let us now look at the lower instantiation of the marker, progressive -YVA.

### 3.3 The progressive -YVA and imperfectivity

As already mentioned, when -YVA attaches to a delimitative predicate, the form cannot have the progressive meaning. It can only receive an iterative interpretation; consider e.g. the Russian *počityvat* ‘to read from time to time’ in (10b) again. This results from the splitting of -YVA into two different syntactic positions and from the positioning of the delimitative *po-* between them, as discussed in Section 2. So, what is the meaning of the progressive -YVA?

Progressivity is often defined in terms of partitivity (Filip 1999: 171–175, 213 and references therein), as is (secondary) imperfectivity (e.g. Łazorczyk 2010: 134–139). Although progressivity and (Slavic) imperfectivity are close notions (Zucchi 1999: 200), they are not identical; see e.g. Comrie (1976: 33) and Dahl (1985: 92). Recall also from Section 3.2 that the aspectual projection, which is going to encode (im)perfectivity in the current proposal, occurs in a higher syntactic position, hence it is not identical to the progressive projection spelled out by the progressive -YVA-. Thus, since the progressive brings about an internal part of the eventuality, I assume the (for simplicity extensional) meaning in (36) for the progressive -YVA.

$$(36) \quad \llbracket \text{PROG} \rrbracket = \lambda P \lambda e' \exists e [P(e) \wedge e' < e]$$

It is based on Krifka (1992: 47) progressive operator but uses the proper-part-of relation instead of just part-of relation. The reason is that we need to exclude the possibility that the event culminates with the progressive -YVA.<sup>10</sup>

Given the proposal that there are two different syntactic positions (Prog and Iter; see (22) again) with distinct meanings that are spelled out as -YVA, the question arises whether the progressive -YVA can co-occur with the iterative -YVA. It is possible to test it with Czech since it allows combinations of more -YVA markers.

<sup>10</sup>Filip (2005) uses the part-of relation for the meaning of the imperfective morphological aspect since it can also derive the meaning of general-factuality, which can refer to a culminated eventuality. Also Łazorczyk (2010) uses the part-of relation in the meaning of her secondary imperfective operator.

Consider example (37), in which the imperfectivizing *-vá* is attached to the unprefixated perfective stem *dá-* and then another *-(y)va* marker is adjoined, forming the imperfective *dávával*.<sup>11</sup>

- (37) (\*Včera) dá-vá-va-l peníze chudým.  
yesterday give-PROG/ITER-HAB-PTCP money poor.ADJ.DAT.PL  
(Intended:) ‘(Yesterday) he had the habit of giving money to the poor.’

Although the lower *-vá* can bring about the progressive or the iterative interpretation, the higher *-va* can only bring about the habitual meaning in (37). Therefore, the sentence cannot be interpreted non-habitually. The ungrammatical status of the adverbial ‘yesterday’ indicates that an episodic reading is impossible. If an iterative adverbial is used, the sentence must also receive a habitual interpretation, as shown by the translation in (38).

- (38) Dá-vá-va-l peníze chudým dvakrát.  
give-PROG/ITER-HAB-PTCP money to.poor twice  
‘He had the habit of giving money to the poor twice.’

For instance, a person could have the habit of giving money to the poor daily at 9 a.m. and 7 p.m. In contrast, it is not possible that there were only two occasions of giving money to the poor in total. Thus, the outer *-yva* in cases like (38) always instantiates a habitual operator that is structurally higher than the iterative and progressive suffixes.<sup>12</sup>

The incompatibility of the iterative and progressive *-yva* has a semantic reason. As discussed in Section 3.2, the iterative operator applies to quantized predicates. However, the progressive operator derives a homogeneous (i.e. cumulative and divisive) predicate, which cannot serve as an input for the iterative *-yva*. According to Łazorczyk (2010: 137–138), the secondary imperfective operator takes a telic predicate and returns a homogeneous subpart of it (see also Filip 1999: 167,

<sup>11</sup>The imperfective *dáva-(t)* can have either the progressive or the iterative interpretations, hence I gloss *-vá* with PROG/ITER.

<sup>12</sup>For more on the habitual *-yva*, see Filip & Carlson (1997), Esvan (2007: 321–340), Berger (2009), Nádeníček (2011: 132–135), Nübler (2017), and also Biskup (2023), who shows that the habitual *-yva* differs from the secondary imperfective *-yva* – the progressive and iterative *-yva* in the current approach – in phonological, aspectual and interpretational properties. Interpretationally, the habitual *-yva* brings about a (generic) quantificational semantics in contrast to the pluractional iterative *-yva*. Since the habitual *-yva* is beyond the scope of this article, I will not discuss it any further here.

who argues that progressive sentences are cumulative).<sup>13</sup> Unsurprisingly, this behavior of the progressive operator corresponds with morphological aspect properties; we saw in Section 1.2 that the imperfectivizing -YVA selects a perfective stem and derives an imperfective predicate.<sup>14</sup>

Consequently, since the progressive -YVA selects a perfective, telic stem, the *po*-verbs *popisyvat* ‘to write from time to time’, *popłakiwać* ‘to cry from time to time’ and *posedávat* ‘to sit from time to time’ cannot be derived in the way schematized in (39), i.e. as “delimited progressives”. The reason for this is that in derivations like (39), in contrast to what was just said, the progressive -YVA would have to apply to stems that are imperfective, homogeneous and atelic: ‘to write’, ‘to cry’ and ‘to sit’.

- (39) a. \* [po- [pis-yva]]-t’  
DEL-write-PROG-INF (Russian)
- b. \* [po- [płak-iwa]]-ć  
DEL-cry-PROG-INF (Polish)
- c. \* [po- [sed-á-va]]-t  
DEL-sit-TH-PROG-INF (Czech)

Another alternative would be to assume that the progressive reading of *po*-verbs with -YVA is excluded because the delimitative *po*- applies first and makes the predicate quantized and individuated, with the consequence that proper parts of the denoted event are not accessible to the progressive -YVA (which applies as second). This proposal, however, would be very restricted because it could only work in the case of an incremental theme (see Filip 2005: 273). Let us test it with other prefixes.

- (40) Pavel ted’ vy-pis-uj-e / o-pis-uj-e celou  
Pavel now out-write-PROG-3.SG about-write-PROG-3.SG whole  
přednášku.  
talk  
‘Pavel is excerpting/copying the whole talk right now.’ (Czech)

<sup>13</sup>See also Tatevosov (2015: 489), who builds on Paslawska & von Stechow (2003: 346) and treats the imperfectivizing -YVA as an eventizer.

<sup>14</sup>Note that despite the fact that the iterative -YVA and the progressive -YVA cannot co-occur, sentences with a diminutive-iterative verb can receive a simultaneous interpretation when the reference time (expressed e.g. by the temporal clause) is included in the event time, as in (i), based on (34).

(i) Kiedy wszedł do pokoju, Kasia po-płak-iwa-ł-a.  
when came.3SG.M into room Kasia DEL-cry-ITER-PTCP-F  
‘When he came into the room, Kasia was crying a little.’

Although there is a secondary imperfective predicate with prefixes making the base verb quantized, combined with a quantified incremental theme in (40), the progressive reading is available. Thus, this alternative explanation of the impossibility of the progressive delimitative interpretation also does not work.

At this point, the question arises as to how the difference between progressivity and imperfectivity is modelled in the current approach. The meaning of the progressive operator in (36) shows that progressivity concerns the internal structure of eventualities. As to the morphological aspect, I make the standard assumption that it concerns temporal properties of eventualities, i.e. relates the event time to the reference time via the inclusion relation (see e.g. Paslawska & von Stechow 2003: 322). Concretely, in the case of the imperfective aspect, the reference time is included in the event time.

### 3.4 Morphosyntactic derivation

Building on Biskup (2019: 36–42, 2024), I assume that the value of the morphological aspect of diminutive-iterative *po*-verbs is determined in the aspectual head via the operation Agree. Combining the structure in (22) with the proposal that all aspectual markers are separated from the aspectual interpretation of the aspectual head (Biskup 2023), we receive (41), with parts relevant to our discussion.<sup>15</sup>

- (41) [Asp<sub>[Asp:?)</sub> ... [Iter -yVA<sub>[IPFV]</sub> ... [Del *po*-<sub>[PFV]</sub> ... [Prog -yVA<sub>[IPFV]</sub> ... [<sub>√root</sub>]]]]]

It shows that aspectual markers like the iterative -yVA, the delimitative *po*- and the progressive -yVA bear an aspectual feature – either with the value [perfective] or [imperfective] – which can value the unvalued aspectual feature of the aspectual head.

Concerning the aspectual projection, it is standardly placed above the projection introducing the agent (see Babko-Malaya 2003, Błaszczak & Klimek-Jankowska 2012, Gribanova 2015). This placement is also supported by the fact that although Russian -*nie* nominals are aspectless (e.g. Schoorlemmer 1995, Gehrke 2008), they can have an agent argument, as demonstrated by the agent-oriented modifier in (42a) and the agentive *by*-phase in (42b).<sup>16</sup>

<sup>15</sup>With the aspectual interpretation of the Asp head, the relation between the reference time and the event time is meant, as discussed in the last paragraph of Section 3.3. This interpretation is different from the semantics of particular aspectual markers, like prefixes, the semelfactive and habitual suffixes and the iterative and progressive -yVA, as discussed in Section 3.2 and Section 3.3 (see also Paslawska & von Stechow 2003, Grønn 2004, Tatevosov 2011, 2015).

<sup>16</sup>Regarding the aspectless status of Russian -*nie* nominals, a reviewer asks whether (42a) can have a durative modifier. Given that *for*-adverbials and *in*-adverbials diagnose (a)telicity rather than (im)perfectivity, this test is not effective.

- (42) a. *umyšlennoe prestuplenie*  
deliberate crime  
'a wilful crime'
- b. *soveršenie prestuplenija licom...*  
perpetration crime.GEN.SG person.INS.SG  
'a perpetration of the crime by a person'
- (Russian; Biskup 2023: ex. (69))

It has been argued that the secondary imperfective suffix merges inside the verbal domain below the agent (see e.g. Romanova 2004: 272 and Tatevosov 2015: 488 for Russian, Kwapiszewski 2022 for Polish and Biskup 2023 for Czech). However, given the splitting of *-yva* into the iterative and progressive *-yva* in the current proposal, we need to know more about the positioning of the agent. There are agent nominalizations ending in *-tel'* in Russian, *-ciel* in Polish and *-tel* in Czech that can contain the imperfectivizing *-yva*. Semantically, the suffixes *-tel'*, *-ciel* and *-tel* (and others, like the agentive version of the Czech *-č* in (44)) relate to the projection containing the agent (external) argument since they introduce an entity – predominantly, a person – that carries out the action denoted by the predicate to which they are attached.<sup>17</sup> Thus, based on Baker & Vinokurova's (2009: 531) analysis of nominalizing affixes like the English *-er*, I consider the morphemes *-tel'*, *-ciel* and *-tel* to be nominal versions of the agentive Voice head. What is crucial for us is that the imperfectivizing *-yva* is always closer to the root than the agentive nominalizing suffix, as demonstrated in (43a).

- (43) a. *do-pis-ova-tel*  
to-write-ITER-NMLZ  
'correspondent'
- b. *ob-jev-i-tel*                      *Plut-a*  
about-show-TH-NMLZ Pluto-GEN  
'the discoverer of Pluto'
- (Czech)

Since (43a) refers to a person repeatedly performing the event of making a report, I take the *-ova* suffix to represent the iterative head. Note that the iterative meaning cannot be a property of *-tel* since this suffix also attaches e.g. to perfective predicates denoting a single event of discovering without changing the cardinality of the action, as shown in (43b). Thus, the order of the imperfectivizing *-yva* and the nominalizing suffix can be taken to mean that the projection of Voice

<sup>17</sup>In the traditional terminology, nouns in *-tel* are called *nomina agentis*.

– hosting the agent – is structurally higher than the iterative projection spelled out by -YVA.<sup>18</sup>

I am not aware of diminutive-iterative *po*-predicates with *-tel'*, *-ciel* or *-tel* but there is at least the deverbal nominalization *pojídač* 'eater', in which the agentive *-č* occurs outside the diminutive-iterative predicate *pojída(t)* 'to eat from time to time', as shown in (44). The presence of the iterative meaning (expressed by *-a*) is confirmed by the fact that the singular complement *krevety* is ungrammatical in contrast to the plural *krevet*.

- [illegible]

Building on these nominalization facts and the placement of the aspectual head above the projection introducing the agent, the relevant piece of morphosyntactic structure of diminutive-iterative *po*-verbs looks like (45), which is based on (41). Note that I added the standard verbalizing head *v* and that the structure does not contain the progressive projection now since the progressive reading of delimitative *po*-verbs with -YVA is excluded.

- (45) [Asp<sub>[Asp:IPFV]</sub> [Voice [Iter -yVA<sub>[IPFV]</sub> [Del *po*<sub>[PFV]</sub> [*v* [*√root*]]]]]]

Given that the aspectual value is determined by the aspectual marker that is attached last (i.e. that is closest to Asp; see discussion in Section 2), when the aspectual head probes, then it finds the aspectual feature of the iterative -yva first. Consequently, the Agree operation uses this [imperfective] feature and diminutive-iterative *po*-verbs always occur as imperfective, as shown in (45).

Structures of diminutive-iterative *po*-verbs are not difficult to linearize since all affixes are structurally higher than the root, as illustrated for the elements under discussion in (45). If the Affix-Specific Linearization by Harley (2013) is assumed – which encodes the prefixal versus affixal property directly in the specific marker – then no head movement is necessary. Only argument phrases need to be evacuated from the extended verbal projection. Consider e.g. the relevant part of linearization of the Polish verb *popłakiwać* ‘to cry from time to time’ in Figure 1.

The verbalizing head *v* is phonologically empty in this derivation but in other cases a theme vowel can be inserted. Since theme vowels are suffixes, the *v* head

<sup>18</sup>The vocabulary item -yva can be inserted into the head of the iterative and progressive projections since it is specified as [imperfective].

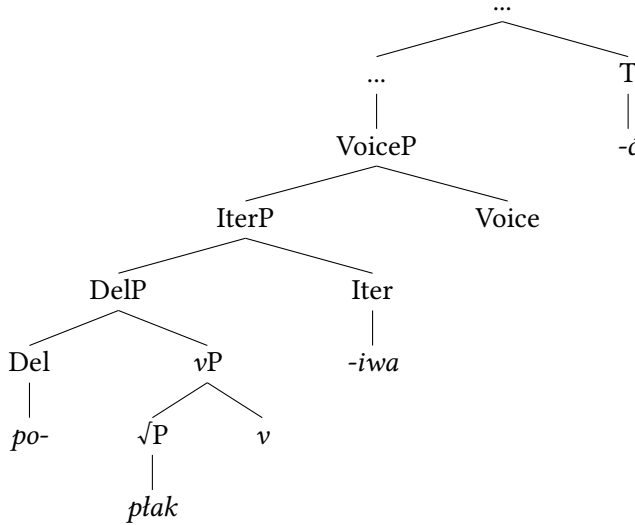


Figure 1: Linearization of Polish *popłakiwać* ‘to cry from time to time’

is placed to the right also here. Delimitative *po-* and iterative *-iwa* are placed to the left and to the right, respectively, in accordance with their prefixal and suffixal status. I do not decompose imperfectivizing suffixes in this article but it is possible to split them, e.g. the Russian *-yva* into *-yv-a*, analogously the Polish *-ywa* into *-yw-a* and the Czech *-ova* into *-ov-a*. The second element (*-a*) could be analyzed as a theme vowel that, e.g. in the structure of *popłakiwać*, spells out the Voice head. Therefore, I put the head to the right in (1). Finally, *-ć* can be taken to represent the infinitival T head, linearized to the right in accordance with the suffixal status of the marker.

One could assume that Figure 1 in fact represents the syntactic structure already before linearization (if one prefers a more powerful syntactic module). This would however go against the standard SVO analysis of Slavic languages, which supposes that heads take their complements to the right in Slavic (but see also Haider & Szucsich 2022: 34–35).

Delimitative *po-* is not the only prefix displaying the special, iterative type of behavior. Comitative *pod-*, e.g. in the Russian *podpevat’* and in the Polish *podśpiewywać*, both with the meaning ‘to sing a little with sth.’, seems to behave in the same way.

Flier (1985: 41) shows that perdurative (“delimitative” in his terms) *pro-* manifests very similar behavior; consider example (46).

- (46) a. Často vesennie večera ona pro-siž-iva-l-a na vysokom  
 often spring evenings she through-sit-ITER-PST-F.SG on high  
 kryl'ce.  
 porch  
 'She would often spend entire evenings in the spring sitting on the  
 high porch.'
- b. \* Ona dolgo prosiživala<sup>IPFV</sup> na vysokom kryl'ce.  
 she long through.sit.ITER.PST.F.SG on high porch  
 Intended: 'She would spend a long time sitting on the high porch.'
- c. \* Ona sejčas prosiživaet<sup>IPFV</sup> na vysokom kryl'ce.  
 she now through.sit.ITER.PRS.SG on high porch  
 Intended: 'She is now spending time sitting on the high porch.'
- (Russian; Flier 1985: 41)

As shown by (46a), the event of sitting is iterated. The incompatibility of the imperfective verb with the adverbial *dolgo* 'for a long time' in (46b) demonstrates that the durative meaning is excluded and the incompatibility of the verb in present with the adverbial *sejčas* 'now' in (46c) shows the impossibility of the progressive meaning. A larger context showing the impossibility of the progressive reading is provided in (47).

- (47) \* Ona pro-siž-iva-l-a vesennie večera na vysokom kryl'ce  
 she through-sit-ITER-PST-F.SG spring evenings on high porch  
 v tot moment, kogda bitva načalas'.  
 in the moment when battle begin.PST  
 Intended: 'She was spending entire evenings in the spring sitting on the  
 high porch when the battle began.'

Thus, this perdurative *pro-* seems to be the next candidate for the positioning between the progressive and iterative *-yva*.

The current proposal has consequences for the overall architecture of verbal predicates. Before the splitting of the secondary imperfective marker into the progressive and the iterative *-yva*, there were two structural possibilities for verbal prefixes: below and above the secondary imperfective morpheme. Now, after the splitting, there are three options, as shown in (48).

- (48) [Asp [Voice [SP<sub>high</sub> [Iter -yva [SP<sub>high</sub> (Del *po-*) [Prog -yva [SP<sub>low</sub> [v  
 [√root [LP]]]]]]]]]]]



Specifically, (i) below the progressive -yva for (lexical, intermediate and lower superlexical) prefixes in predicates that can receive the progressive and iterative interpretations, like the Russian *pro-davat*<sup>IPFV</sup> ‘to sell’; (ii) between the progressive and the iterative -yva for higher superlexical prefixes in predicates which cannot be progressivized but can have an iterative interpretation, like delimitative *po-* in diminutive-iteratives and perdurative *pro-* in (46); (iii) above iterative -yva for higher superlexical prefixes in predicates which cannot be imperfectivized – like ingressive *roz-* in the Polish *rozboleć*<sup>PFV</sup> ‘to start to ache’ – and for higher superlexical prefixes which perfectivize a secondary imperfective predicate, like distributive *po-* in the Russian *po-vytalkivat*<sup>PFV</sup> ‘to push out one after another’.<sup>19</sup>

## 4 Conclusions

I have argued that diminutive-iterative *po*-verbs are derived from delimitative *po*-predicates. The secondary imperfective marker is split into two distinct elements, both syntactically and semantically: iterative -yva and progressive -yva. The iterative marker has a pluractional meaning and merges higher than delimitative *po-*, whereas progressive -yva is a partitive operator that occurs below the prefix. In diminutive-iterative verbs, the progressive operator is not present and delimitative *po-*, with its measure function meaning, applies to the simplex predicate. Then, the event denoted by the quantized predicate is iterated by the pluractional imperfectivizing -yva. I have discussed certain restrictions on the formation of delimitative *po*-verbs and argued that only eventualities with a scalar structure and an event variable can be delimited. Static states, which contain the Kimian state referential argument, are not compatible with delimitative *po-*. As to morphosyntactic structure, I have argued that the iterative projection, spelled out by -yva, occurs inside the verbal domain below the Voice projection, which introduces the external argument. Morphological aspect properties of diminutive-iteratives are determined in the aspectual projection via Agree with the closest aspectual feature, i.e. the imperfective feature of the iterative head. We have also seen that the overall (aspectual) architecture of Slavic predicates is more fine-grained and that there are more prefixal positions than usually assumed.

<sup>19</sup>Mehlig (2007, 2012) discusses examples of delimitative *po*-verbs in Russian like *pootkryvat’ okno* ‘to open a window for a while’, which at first sight, suggest that the delimitative *po-* can also merge higher than the iterative -yva. Such predicates denote an attempt to attain the change of state through several different actions. These cases probably are not problematic since they could be analyzed in terms of the partitive progressive operator (which I argued to be lower than the delimitative *po-*), as in Tatevosov & Ivanov (2009).

## Abbreviations

DEL	delimitative	PFV	perfective
F	feminine	PL	plural
GEN	genitive	PROG	progressive
HAB	habitual	PRS	present
INF	infinitive	PST	past
INS	instrumental	PTCP	participle
IPFV	imperfective	SG	singular
ITER	iterative	SI	secondary imperfective
M	masculine	TH	theme (vowel)
NMLZ	nominalizer		

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