

# ASPECTUAL TRIPLETS IN ESTONIAN<sup>1</sup>

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**Abstract.** Estonian has lexical perfective-imperfective ‘doublets’, as in *mõõtma* ‘measure’, *välja mõõtma* ‘measure (out)’. The ‘doublets’ render the Estonian lexical aspect similar to that of Germanic, e.g. Dutch *meten* ‘measure’ and *uitmeten* ‘measure out’. Finnish uses object case alternation for the expression of the opposition, e.g. *mitata/mitoittaa* ‘measure’. However, Estonian also has regular morphological means to express aspectual ‘triplets’, like Slavic, as in the Russian imperfective simplex *merit* ‘measure’, the perfective *izmerit* ‘measure (out)’ and the secondary imperfective *izmerjat*, approximately ‘be measuring out’. The third member of the Estonian triplet emerges via combining the particle and the partitive object case.

**Keywords:** aspect, Aktionsart, partitive, Differential Object Marking, verbal particle, verb semantics, secondary imperfective, Russian contact, Estonian dialects

## 1. Introduction

In terms of culture, language change is an intriguing phenomenon. Does a language change due to its own natural, internal development, because of external influence from its contact languages, or because of an externally-induced cultural change? This paper considers the instance of Estonian aspectual triplets and the spread of aspectual particles. In Modern Estonian, aspectual particles may co-occur with partitive objects, as in (1).

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- (1) Tallinn anna-b Lõuna-Eesti-t ära.<sup>2</sup>  
 T[NOM] give-3SG South\_Estonia-PAR PRT  
 ‘Tallinn is giving up on South Estonia; Tallinn does not care about South Estonia.’

In (1), the aspectual-perfective particle *ära* appears in combination with a partitive object. The partitive of the object, however, does not lead to the interpretation that only parts of the whole South Estonia are being given up. The context of the sentence hints at a gradual process that affects the whole South-Estonia and that would result in it *en bloc* losing Tallinn’s interest.

Morphological and lexical means that express goal-oriented activities can be found in Slavic languages. In those languages, the phenomenon is wide-spread, and it emerges in the form of aspectual pairs and even triplets in the verb system. Aspect is the grammatical category that expresses how an event extends over time. According to a definition by Comrie (1976), ‘aspects are different ways of viewing the internal temporal constituency of a situation’ (p. 3). Perfective presents the situation in its entirety, including its beginning and end, while imperfective focuses on a phase of the situation, without reference to its endpoints.

Most unprefixated Russian verbs are imperfective, such as *pit’* ‘drink, imperfective’. Such unprefixated verbs can be perfectivized by means of an aspectual prefix, as in *vypit’* ‘drink, perfective’. Russian is characterized by the *grammatical* category of aspect with its regular expression of imperfective-perfective oppositions in its verb lexicon, such as *davat’*, *dat’* ‘give’, *čitat’*, *pročitat’* ‘read’, *ponimat’*, *ponjat’* ‘understand’, or *lit’*, *razlit’* ‘pour’.

Yet another imperfective form (secondary imperfective) can be derived from a prefixed base by adding an imperfectivizing suffix (Rassudova 1984, Isačenko 1962), e.g. *vypit’* ‘drink, perfective’, *vypivat’* ‘imperfective 2’. By means of secondary imperfectivization

<sup>2</sup> <http://epl.delfi.ee/news/arvamus/juhtkiri-tallinn-annab-louna-eestit-ara?id=82266575> (30.05.2018).

with a suffix, aspectual ‘triplets’ can be formed. Arkadiev (2018), discussing Dahl’s (1985) characterization of Slavic-style aspect in terms of contact phenomena, lists secondary imperfectivization as a possible indicator of paradigmaticization in contact situations with Slavic languages. The triplets of some Russian verbs are illustrated in Table 1 (on the basis of Janda et al. 2013).<sup>3</sup>

**Table 1.** Russian aspectual triplets

Imperfective I	Perfective	Secondary imperfective
<i>merit</i> ‘measure’.INF ‘measure’	<i>iz-merit</i> ’ PRF-measure.INF ‘measure out’	<i>iz-mer-ja-t</i> ’ PRF-measure-IMP2-INF ‘measure out’
<i>kopat</i> ’ dig.INF ‘dig’	<i>vy-kop-at</i> ’ PRF-dig-INF ‘dig out’	<i>vy-kap-yva-t</i> ’ PRF-dig-IMP2-INF ‘dig out’
<i>drat</i> ’ tear.INF ‘tear’	<i>razo-dra-t</i> ’ PRF-rip.apart-INF ‘rip apart’	<i>raz-dir-a-t</i> ’ PRF-rip.apart-IMP2-INF ‘rip apart’
<i>grjaznit</i> ’ soil-INF ‘soil, make dirty’	<i>za-grjazni-t</i> ’ PRF-soil-INF ‘soil, make dirty’	<i>za-grjazn-ja-t</i> ’ PRF-dirty-IMP2-INF ‘soil, make dirty’
<i>li-t</i> ’ pour-INF ‘pour, be pouring’	<i>raz-li-t</i> ’ PRF-pour-INF ‘pour out, spill’	<i>raz-li-va-t</i> ’ PRF-pour-IMP2-INF ‘pour’
<i>vesti</i> lay.INF ‘lay, install’	<i>pro-vesti</i> PRF-lay-INF ‘lay, install’	<i>pro-vodi-t</i> ’ PRF-lay.IMP2-INF ‘lay, install’

The secondary imperfective enables the speaker of Russian to focus on a phase of the situation, as in (3) below, which is conveyed with a prefixed verb, or to refer to a repeating or general event.

(3) Russian

On dva časa ras-kraši-va-l zabor.  
3SG.MASC two hours PRF-paint-IMP2-PST.3SG.MASC fence[ACC]  
‘He painted the/a fence for two hours.’ (Galambos 2007: 86)

An aspectual triplet is a set of three related verbs: a simplex verb, a prefixed perfective verb, and a secondary imperfective verb. An example from Russian is the triplet of *merit* ‘measure’, where the members share a lexical meaning but diverge in aspect and Aktionsart. Aktionsart refers to the typical development and temporal

<sup>3</sup> [http://emptyprefixes.uit.no/triplets\\_eng.htm](http://emptyprefixes.uit.no/triplets_eng.htm) (02.10.2018)

structuring of the activity. Aktionsart categories characterize the way in which a situation develops (Binnick 1991: 145), expressing an ‘accidental modification of the meaning of the base verb expressed by morphological means’ (Kiefer, Honti 2003: 139). The imperfective simplex verb of the aforementioned triplet is *merit* ‘measure’, the perfective member is *izmerit* ‘measure (out)’, and the third member of the triplet is the secondary imperfective *izmerjat*, which conveys the meaning ‘be measuring out, generally/frequently measure out’. The secondary imperfective is morphologically formed on the basis of the perfective member of the triplet by means of suffixation. In Russian, several perfective verbs correspond to two imperfective verbs.

This paper intends to substantiate the observation that such triplets are also widespread in Estonian, as in the internet examples (4) (a simplex verb), (5) (a particle verb expressing perfectivity), and (6) (a particle verb and a partitive object expressing imperfectivity).

(4) a simplex verb

Esialgu laps            **korda-b**    kuuldud silpe  
 first    child[NOM] repeat-3SG heard    syllable.PAR.PL  
 siis sõnu            ja lõpuks fraase.<sup>4</sup>  
 then word.PAR.PL and finally phrase.PAR.PL  
 ‘First, the child repeats syllables, then words, and finally, phrases.’

(5) a particle verb and an accusative (total) object expressing perfectivity

Tunnustatud lektor            **korda-b üle**  
 renowned    lecturer[NOM] repeat-3SG PRT  
 kõik varasema-d    suusamäärimise põhitõe-d[...]<sup>5</sup>  
 all[ACC] earlier-ACC.PL ski.smearing.GEN principles-ACC.PL  
 ‘The renowned lecturer repeats all the basic principles of smearing skis[...].’

<sup>4</sup> <https://et.wikipedia.org/wiki/Ehholaalia> (02.10.2018)

<sup>5</sup> <https://www.sparta.ee/uudised/suusauudised/uudis/2016/12/16/21detsembril-toimub-spartas-suur-suusamaarimise-koolitus> (02.10.2018)

- (6) a particle verb and a partitive object expressing imperfectivity  
 Sõnavõtja      **korda-b**    **üle**    erinevate-s  
 presenter[NOM] repeat-3SG PRT different-INE  
 katkutooni-de-s    toimiva-t      käitumisjuhise-t.<sup>6</sup>  
 plague.zone-PL-INE applicable-PAR instruction-PAR  
 ‘The presenter repeats the instructions that apply to the different  
 zones of plague.’

The paper presents various examples of aspectual triplets in Estonian, supported by examples of natural language use by native speakers on the internet (Section 5). In addition, the paper addresses the geographical distribution of the particle *ära* ‘away, up, completely’, which is known as the semantically bleached aspectual particle in Estonian (Section 4). The spread of the particle is examined across the Estonian dialects to establish the possible direction or impact of contact on aspectual phenomena. Before the discussion of the data, the Estonian aspectual system is presented (Section 2), followed by a comparison with related and contact languages (Section 3). The paper ends with conclusive remarks (Section 6).

## 2. The aspectual structure of Estonian

The Estonian aspectual structure comprises object case alternation, aspectual (typically Aktionsart) particles, Aktionsart suffixes, verbal constructions and verbal complexes (see e.g., Tamm 2012 for an overview). Object case alternation (also referred to as Differential Object Marking) and the aspectual properties of a sentence are highly correlated in Estonian, but previous sources highlight different details of these relationships and the question of triplets has not been examined in detail (cf. Metslang 1994, 2001, 2017, Sulkala 1996).

Some verbs can express two aspects, perfective and imperfective, by means of the so-called total-accusative versus partitive case alternation, as in (7).

<sup>6</sup> [www.ejs.ee/wp-content/uploads/2015/01/23.10.14.\\_protokoll.doc](http://www.ejs.ee/wp-content/uploads/2015/01/23.10.14._protokoll.doc) (02.10.2018)

- (7) a. Reili kirjuta-s raamatu.  
 R[NOM] write-PST.3SG book.ACC  
 'Reili wrote a book.'
- b. Reili kirjuta-s raamatu-t.  
 R[NOM] write-PST.3SG book-PAR  
 'Reili was writing a book.'

Most verbs are, however, much more restricted in terms of their aspect and case marking. Case alternation roughly corresponds to the situations that the clauses express in terms of Vendlerian classes. Achievements are typically characterized by total (I apply the term *accusative* here) objects and the expression of perfectivity, whereas activities and states express typically imperfective aspect and pattern with partitive objects (cf. Metslang 2001). These aspectual features are fixed to the verbs in the lexicon, since the object case cannot be randomly changed to express the intended aspectual meaning, as illustrated in (8) with the achievement verb *leidma* 'find' and in (9) with an activity verb *uurima* 'examine'.

- (8) a. Leid-si-n vea.  
 find-PST-1S mistake.ACC  
 'I found a/the mistake.'
- b. #Leid-si-n viga.  
 find-PST-1S mistake.PAR  
 Not interpretable as 'I found a/the mistake.'
- (9) a. Uuri-si-n viga.  
 examine-PST-1S mistake.PAR  
 'I examined a/the mistake.'
- b. #Uuri-si-n vea.  
 examine-PST-1S mistake.ACC  
 'Not interpretable as 'I examined a/the mistake.'

Verbs are frequently classified according to their (inherent) aspectual features as bounded or unbounded,<sup>7</sup> scalar or nonscalar,<sup>8</sup> or as inherently imperfective, perfective, or neutral.<sup>9</sup> However, their basic aspect can be modified, which is discussed in terms of nested aspects or two-level theory of aspect in the literature on aspect (e.g. Lindstedt 1984, Verkuyl 1993).

Some information about the Estonian verbal Aktionsart particles is in order. A considerable number of simplex verbs, such as *leidma* ‘find’ or *uurima* ‘examine’, can have a lexical counterpart with an aspectual particle, *üles leidma* ‘find’ or *läbi uurima* ‘examine, complete the examination’. Bereczki (2000: 82) reports of 52 such particles in Estonian. These verbal particles express the typical development and temporal structuring of an activity; therefore, they can be referred to as Aktionsart particles. The particles form lexical units with a verb, but they are syntactically separable in finite clauses.

Typical Aktionsart particles have evolved on the basis of directional adverbs via three phases that define the type of the particles and determine the nature of how they relate to the verb’s arguments. Table 2 below presents examples of the particle types.<sup>10</sup> In Type 1, the verb with the *directional particle* has a theme argument that is subjected to goal-oriented motion along a path of the event that is not syntactically expressed. In Type 2, the *completive particle* has an argument that is subjected to goal-oriented activity. In Type 3, the particle has a purely *bounding or perfective* meaning. The verb with which it appears may lack any theme arguments that are related to the goal and that could measure out the event. Only the particle *ära* represents this type in Estonian.

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<sup>7</sup> Erelt et al. (1993).

<sup>8</sup> Tamm (2012).

<sup>9</sup> The relevant verb classifications can be found in Sulkala (1996: 178); see also Metslang (2001), Erelt et al. (1993).

<sup>10</sup> See Tamm (2004) for details.

Type 1: Directional: the path of the object corresponds to the progress of the event in (10).

- (10) Mari vii-s raamatu ära/ minema/ välja.  
 M[NOM] bring-3S.PST book.ACC PRT/ away/ out  
 ‘Mary took the book away/out.’

Type 2: Completive-resultative: the event evolves as the theme changes or is traversed, as in (11).

- (11) Mari kontrolli-s toa üle/läbi/ära.  
 M[NOM] check-3S.PST room.ACC PRT  
 ‘Mary checked the room.’

Type 3: Bounding-perfective: there is no argument measuring out the event. There is no path traversed or theme argument affected, and thus no event-related argument for the particle to mark the end-point of, as in (12).

- (12) 148 \*MOT: ja siis sõida-te meie kodu-st mööda  
 and then drive-2PL our home-ELA by  
 sinna kooli juurde.  
 there school.GEN nearby  
 ‘... and then you will drive past our home to the school...’
- 149 \*MOT: ja siis seal võimle-te ära.  
 and then there exercise-2PL PRT  
 ‘...and then you will finish your gym exercises there...’
- 150 \*MOT: ja siis tule-te tagasi [...]<sup>11</sup>  
 and then come-2PL back  
 ‘...and then you will return ...’

In this typical example of recorded spoken language, (12), which is an instance of child-directed speech, a sequence of bounded events is presented by a caregiver to a child – see also Metslang (2001: 463) for more examples.

<sup>11</sup> <https://chilides.talkbank.org/browser/index.php?url=Other/Estonian/Zupping/020518.cha> (02.10.2018)



**Table 2.** The Estonian perfective particles

<b>DIRECTIONAL</b> <i>ära, minema</i> 'away', <i>läbi</i> 'through', <i>välja</i> 'out', <i>üles</i> 'up', <i>alla</i> 'down', <i>üle</i> 'over', etc. in their transparent combinations with verbs	<b>COMPLETIVE-RESULTATIVE</b> <i>ära</i> 'completed', <i>maha</i> 'down', <i>läbi</i> 'through', <i>välja</i> 'out', <i>üles</i> 'up', <i>alla</i> 'down', <i>üle</i> 'over', etc. in their less transparent combinations with verbs	<b>BOUNDING-PERFECTIVE</b> ( <i>ära</i> )
Denotes the completion of a path, e.g. the endpoint of the path to a place that is somewhere 'away'.	Denotes the result or completion of the activity or process encompassing an argument.	Denotes the bounding of an activity without encompassing a clear path or theme.
<i>minema minema</i> 'go away', <i>välja minema</i> 'go out', <i>ära jooksmata</i> 'run away'	<i>ära tapma</i> 'kill', <i>ära surema</i> 'die', <i>ära kaduma</i> 'disappear', <i>ära kaotama</i> 'lose', <i>läbi lugema</i> 'read through', <i>ära korraldama</i> 'organize, get done', <i>ära anastama</i> 'occupy', <i>maha müüma</i> 'sell out', <i>maha rahunema</i> 'calm down', <i>välja kannatama</i> 'survive, tolerate', <i>ära puhastama</i> 'clean'	<i>ära + mängima</i> 'do, finish playing', <i>ära + jooksmata</i> 'do, finish running', <i>ära + tegelema</i> 'do, finish the activity', <i>ära + tutvuma</i> 'do, finish getting acquainted with'

What are the ways of forming aspectual triplets, deriving the meaning of secondary imperfectives on the basis of the combinations described above? Erelt et al. (1993: 22–23) list Aktionsart categories of punctual, iterative, continuative, semelfactive, and progressive for Estonian. From these categories, the morphemes expressing iterative, continuative, frequentative and progressive Aktionsart morphemes could lead to secondary imperfective formation in a situation of language contact. However, although there are many iterative and frequentative suffixes (*-le-*, *-skle-*, *-dle-*, *-tle-*, *-ke/gi-*, *-u-*, *-i-*) and continuous Aktionsart suffixes (*-ne-*, *-tse-*, *-uta-*, *-nda-*, *-rda-*, *-lda-*, *-ise*), none of them are recruited to derive secondary imperfectivization in a regular manner. The meaning of secondary imperfective is regularly conveyed by the object case, as in (1) above.

### 3. Comparisons with related and contact languages

This section discusses Estonian and Finnish, Russian, and Germanic. Finnish and Estonian differ in the regularity of expressing various aspectual phenomena that could be related to the relative regularity of aspectual triplets in Estonian: Aktionsart suffixes, object case alternation, lexical aspect and particle verbs.

Firstly, Estonian and Finnish are rich in Aktionsart suffixes that either change or do not change the lexical aspect of the verb. However, as one of the anonymous reviewers notes, their character is different in the sense that the Finnish Aktionsart suffixes are more widespread than the Estonian ones. In terms of a possible language-internal development, some of the imperfectivizing suffixes could have become more general. However, it cannot be easily established, i.e. that there is or that there has been, for instance, a frequentative suffix developing into a general imperfectivizing suffix in Finnish. In Russian the secondary imperfective suffixes have several form variants that depend on the lexical items, whereas the third member of the triplet is uniformly expressed by the partitive case on the object in Estonian.

Secondly, there is less non-aspectual object case alternation in Estonian than in Finnish. Comparison with other Finnic languages also shows that Estonian verb classes have undergone a regular change that did not affect other Finnic languages. Object case in Finnish is not always aspectual, whereas it is more often aspectual in Estonian. For instance, in (13a) the verb describing a state has an accusative-total object in Finnish. In Estonian (13b), the state patterns with the partitive object as expected under aspectual case marking.

- (13) a. Tiedä-n    sen / \*sitä    (Finnish)  
           know-1SG    it.ACC / it.PAR  
           'I know it.'

- b. Tean            seda / \*selle        (Estonian)  
                   know-1SG   it.PAR / it.ACC  
 ‘I know it.’ (a stative verb with a partitive object, **aspectual**  
 marking)

In sum, Estonian has more partitive objects than Finnish, and the Estonian object case alternation is more in line with aspectual oppositions in terms of perfectivity.

Thirdly, Estonian lexical aspect determines the clausal aspect more strongly than Finnish lexical aspect does. The examples in (14) illustrate the Estonian pattern. While resultative phrases as in (14a) are attested as aspectual ‘boundaries’, telizers or perfectivizers in Finnish as well as Estonian (14b), various verb classes cannot be bounded, telized or perfectivized solely by means of object case in Estonian (14c), but they can in Finnish (14d) (following Kiparsky 1998). Instead, an aspectual particle is associated with the verb (14e). In fact, even verbs where Finnish would use a resultative construction tend to appear with a dedicated verbal Aktionsart particle in Estonian, as in (14f).

(14) a. Finnish

Metsästäjä    ampu-i            karhu-n    kuoliaa-ksi.  
 hunter        shoot-PST.3SG   bear-ACC   dead-TRA  
 ‘The hunter shot a/the bear dead.’

b. Estonian

Ta    luge-s            raamatu    kapsa-ks.  
 s/he   read-PST.3SG   book.ACC   cabbage-TRA  
 ‘S/he read the book such that it looked like a cabbage  
 [in the  
 end].’

c. Estonian

??Ta   luge-s            raamatu.  
 s/he   read-PST.3SG   book.ACC  
 ‘S/he read the book; s/he chose a book to read.’

## d. Finnish

Hän luk-i kirja-n.  
 s/he read-PST.3SG book-ACC  
 ‘S/he read the book.’

## e. Estonian

Ta luge-s raamatu läbi.  
 s/he read-PST.3SG book.ACC PRT  
 ‘S/he read the book (from cover to cover).’

## f. Estonian

Jahimees lask-is karu maha.  
 hunter shoot-PST.3SG bear-ACC PRT  
 ‘The hunter shot a/the bear.’

Finally, Estonian Aktionsart and aspectual particle types need to be highlighted also in the context of Germanic and Slavic verbal particles and prefixes. At least one of the particles, *ära*, is not comparable to the Finnish resultatives or Germanic Aktionsart particles, but more similar to the perfectivizing elements in Russian in its independence from the argument or thematic structure, and it has a purely bounding and perfective meaning. The type 2 particles, completive-resultative ones, where the event evolves as the theme argument changes or is traversed, occur in Germanic, possibly also in some uses of the Finnish *pois* ‘away’ or *läpi* ‘through’, which certainly qualify as Type 1 particles.

A similarity between Estonian and the Slavic system in secondary imperfectivization is the restriction on the possible readings of the secondary imperfectives (cf. Soboleva 2014, Janda et al. 2013). Example (15) illustrates a correlate of a Russian primary imperfective with the simplex verb *lugema* ‘read’, where the imperfective reading correlates with the partitive case marking on the object.

- (15) luge-s raamatu-t  
 read-3SG.PST book-PAR  
 ‘read/was reading the book’

Example (16) illustrates a correlate of a Russian perfective with the verb *lugema* ‘read’, where the perfective reading correlates with the accusative case marking on the object and an Aktionsart particle.

- (16) *luges*                *raamatu läbi*  
 read-3SG.PST book.ACC through  
 ‘read through the (whole) book’

Example (17) in turn illustrates a correlate of a Russian secondary imperfective with the verb *lugema* ‘read’, where the secondary imperfective reading correlates with the partitive case marking on the object and the verb with an Aktionsart particle. This example shows that also in Estonian, not all verb classes are equally well accepted with the interpretation of secondary imperfectives formed by the partitive objects.

- (17) ??*luge-s*            *raamatu-t läbi*  
 read-3SG.PST book-PAR through  
 ‘was reading the book from cover to cover’

The restrictions on the readings that a secondary imperfective imposes on this verb are similar in Estonian and Russian; in this case, the iterative is allowed.<sup>12</sup> Estonian does not have triples with each combination of verbs and particles. However, frequent and productive triple formation seems to lack with similar combinations in Russian. Some examples of hypothetical (morphologically possible) but in practice non-existent or at least not attested Russian triplets are collected from Janda et al. (2013): spoil: *portit*’, *ispor-tit*’, *\*isporčivat*’; feed: *kormit*’, *nakormit*’, *\*nakarmlivat*’; write: *pisat*’,

<sup>12</sup> *Pročityvat* ‘read through’ as a secondary imperfective is a possible word, but it is not a usual context-free word, e.g. *On neodnokratno / mnogo raz pročityval e’tu knigu, (no) tak do konca ee i ne ponjal*, which could be rendered as ‘he read through the book multiple times, but did not end up understanding it fully’, Natalia Vaiss, p.c. Iterative contextual support is necessary for the Estonian combination of the Aktionsart particle with the verb *lugema* ‘read’ and the partitive object, cf. also Vaiss (2004).

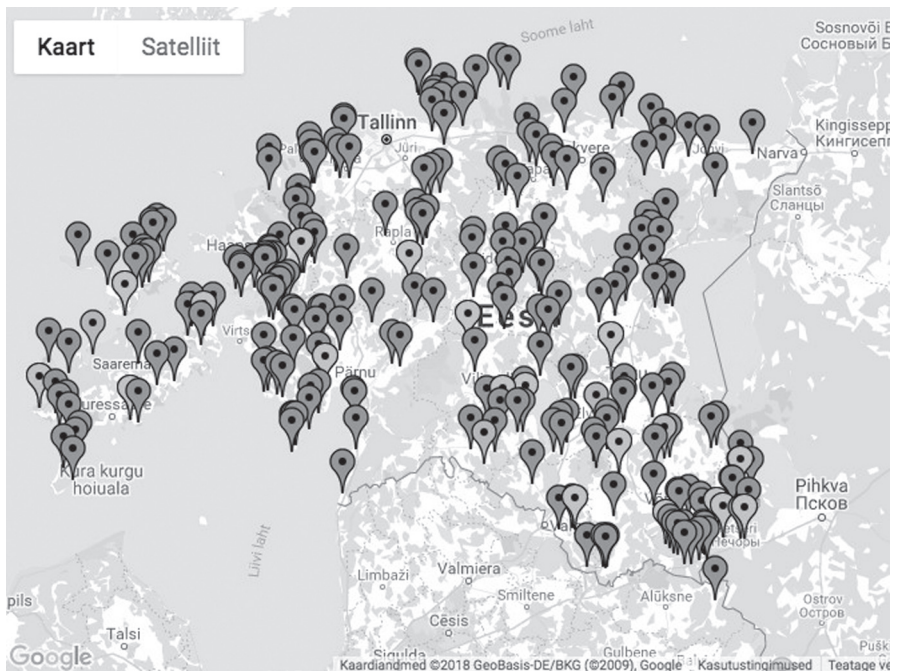
*napisat'*, *napisyvat'*; frighten, scare: *pugat'*, *\*napugat'*, *napugivat'*; lose: *terjat'*, *poterjat'*, *\*poterivat'*; celebrate: *prazdnovat'*, *otprazdnovat'*, *\*otprazdnovyvat'*; make, do: *delat'*, *sdelat'*, *\*sdelyvat'*; see: *videt'*, *uvidet'*, *\*uvidyvat'*; fix: *fiksirovat'*, *zafiksirovat'*, *\*zafiksirovyvat'*; build: *stroit'*, *postroit'*, *\*postraivat'*. The event structural, aspectual and lexical reasons for the similarities in banning the third member in some potential triplets in the two languages diverge systematically. In sum, aspectual triplets emerge or fail to emerge in partly similar way in Estonian and Slavic aspect.

It should be stressed, however, that Estonian did not acquire the Russian aspectual verbal prefixation in the way that Veps or Karelian did, which obtained Aktionsart prefixes such as *pere-*, *po-* and *do-* as reported in Kiefer and Honti (2003). While Arkadiev (2018) shows many other instances of direct calques or even exact morphemes from Russian and Slavic in their contact languages, no similar direct calques or forms can be observed in Estonian. The similarity lies in the regularity of aspectual triplets. This makes Estonian different from Finnish as well as Livonian. Even if partitive objects appear with perfective verbs in Finnish, and in Finnish partitive objects can 'imperfectivize' verbs (see VISK §1512), there is no widespread formation of triplets.

#### 4. The particle *ära* in Estonian dialects

Measuring how the frequency of aspectual triplets is related to language contact is beyond the scope of the present study, but the frequency of aspectual particles can be traced, for instance, in the Estonian dialect corpus. If there are more aspectual particles in a language sample, then it does not necessarily mean that there are also more regular ways of forming aspectual triplets; more aspectual particles may indicate higher rate of paradigmaticization. However, if there are less particles in a dialect area, then the frequency of aspectual triplets is possibly also lower, which may lead to a lower rate of paradigmaticization.

The occurrence of the verbal particle *ära* was investigated in the Estonian dialect subcorpora. If the frequency of particles depends on Russian influence, then we would expect more aspectual particles in the Russian contact zones. Figure 1 below depicts the occurrence of the particle *ära* in the Estonian villages from which dialect samples were collected.<sup>13</sup> Lighter coloured marks represent higher numbers of occurrence; the link provided in the previous footnote shows the exact numbers of occurrence of *ära* in each village.



**Figure 1.** Spread of the occurrence of the particle *ära* across Estonian villages (lighter coloured marks represent higher numbers)

<sup>13</sup> <http://www.murre.ut.ee/mkweb/?lemma=%C3%A4ra&liik=Adva&tahendus=&sonne=&vorm=&kontekst=-1&keel=eesti&murre=&murak=&aasta=&vanus=&sugu=&boss=> (02.10.2018)

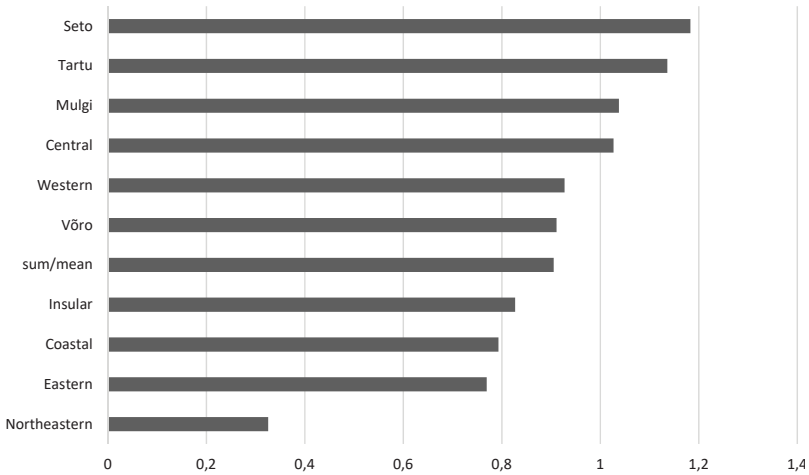
Although it can be observed that lighter marks appear more frequently in the west, centre and south of the Estonian language area, the absolute numbers do not provide an optimal measure. Therefore, a uniform measure was applied for each dialect area to estimate the proportion of the aspectual particle in the total sum of words. First, I counted the number of sentences that contained the particle (column 2 in Table 3 below) in each dialect area, then divided the result by the total number of tagged words in the subcorpus as reported in Lindström (2015:20–22) (column 3), and finally I multiplied the end result by one hundred to obtain a percentage (column 4).

**Table 3.** Frequency of *ära* in the dialect subcorpora

Dialect	number of sentences with 'ära'	number of annotated words in the subcorpus	Percentage of 'ära' in dialectal texts
Northeastern	184	56525	0.32551968
Eastern	389	50570	0.769231
Coastal	453	57128	0.792956
Insular	1664	201184	0.827104
Sum/Mean	<b>9124</b>	<b>1008080</b>	<b>0.905087</b>
Võro	882	96818	0.910988
Western	1793	193381	0.92718519
Central	1548	150754	1.026838
Mulgi	679	65432	1.03771855
Tartu	733	64519	1.136099
Seto	849	71769	1.182962

Figure 2 below presents the frequency of the particle *ära* in the Estonian dialect subcorpora, arranged from the highest to the lowest proportion (top to bottom).





**Figure 2.** Frequency of the particle *ära* in the Estonian dialect subcorpora

Northeastern, Eastern, coastal and insular dialects place below the mean, while Seto, Tartu, Mulgi, central, Western and Võro dialects place above the mean line. More aspectual particles occur in the Russian—but possibly also Baltic—contact zones, as well as in the west, possibly along trade routes. Germanic may have influenced those regions more than others.

## 5. Examples of triplets: some typical verbs and particles

The following examples show more evidence for the ‘aspectual triplets’ in Estonian language as represented online: more verbs and more particles than illustrated above can form triplets.

(18) a simplex verb with a partitive object

Kui riik **tee-b** **elarve-t** valesti, siis vingume,[...]¹⁴  
 if state[NOM] make-3SG budget-PAR wrong then whine  
 ‘If the state writes a bad budget, then we complain,[...]’

¹⁴ <https://www.saartemaal.ee/2012/01/05/e-loendusest-osavott-saare-maakonnas-jaab-alla-riigi-keskmise/> (02.10.2018)

- (19) a particle verb with an accusative object

Kui Riigikogu **tee-b eelarve ümber**, siis...<sup>15</sup>  
 if parliament [NOM] make-3SG budget.ACC PRT then  
 ‘If the Parliament redraws the budget, then...’

- (20) a particle verb with a partitive object

On muidugi paha, kui eelarve tuleb ümber teha,  
 ‘It is of course bad when the budget needs to be redrawn...’  
 aga ka riik **tee-b eelarve-t ümber**<sup>16</sup>  
 but also state[NOM] make-3SG budget-PAR PRT  
 ‘... but even the state is redrawing the budget’

Naturally occurring ‘minimal triplets’ with identical argument frames and referents are difficult to find. As secondary imperfectives were proposed as one of the characteristic features of the Russian aspectual system in contact situations, two particle verbs are illustrated below in pairs. The verb *töötama* ‘work, develop’ and the particle *välja*, derived from ‘out’, are frequent in triplets. Several verbs, such as *selgitama* ‘clarify’, *mõõtma* ‘measure’, and *arvutama/arvestama* ‘calculate, estimate’ occur with this particle in triplets.

- (21) a particle verb with an accusative object

Jaapan **tööta-b välja uue**  
 Japan[NOM] make-3SG PRT new.ACC  
**videoedastustehnoloogia**,<sup>17</sup>  
 video.transmission.system.ACC  
 ‘Japan will develop a new video transmission system.’

<sup>15</sup> <http://stenogramm.d.riigikogu.ee/et/201110261400> (02.10.2018)

<sup>16</sup> <https://www.postimees.ee/1723979/ulikoolid-rikuvad-oppemaksu-tostes-seadust> (02.10.2018)

<sup>17</sup> <https://foorum.hinnavaatlus.ee/viewtopic.php?t=354932> (02.10.2018)

- (22) a particle verb with a partitive object

Eesti firma tööta-b välja uut vähiravimi-t.<sup>18</sup>  
 Estonian company[NOM] make-3SG PRT new.PAR cancer.drug-PAR  
 ‘An Estonian company is developing a new medicine to cure cancer...’

The verb *viima* ‘bring, take’ and a particle based on *läbi* ‘through’ occur often in triplets.

- (23) a particle verb with an accusative object

Ürituse vii-b nii Tartu-s kui ka  
 event.ACC organize-3SG so T-INE as also  
 Tallinna-s läbi Harald Lepisk.<sup>19</sup>  
 T-INE PRT HL[NOM]  
 ‘In Tartu, as well as in Tallinn, the event will be organized by Harald Lepisk.’

- (24) a particle verb with a partitive object

Kohapeal vii-b üritus-t läbi  
 locally organize-3SG event-PAR PRT  
 Keskerakonna Noortekogu Kuressaare klubi.<sup>20</sup>  
 Centre.Party.GEN youth.section.GEN K.GEN club[NOM]  
 ‘The event is locally organized by the Kuressare Club of the youth section of the Estonian Centre Party.’

The internet provides many more examples of aspectual triplets, such as *üle viima* ‘transfer’, *lahti harutama* ‘disentangle, solve’, etc.

<sup>18</sup> <http://arileht.delfi.ee/news/uudised/eesti-firma-tootab-valja-uut-vahiravimit?id=8844933&com=1&no=20> (02.10.2018)

<sup>19</sup> [http://opleht.ee/2018/09/seminaril-jagatakse-abiturientidele-nippe-opetajate-paevaks/\(02.10.2018\)](http://opleht.ee/2018/09/seminaril-jagatakse-abiturientidele-nippe-opetajate-paevaks/(02.10.2018))

<sup>20</sup> <https://mu.ee/uudised/2007/02/13/kesknoored-toetavad-kuressaares-alkoholi-muugi-piiramist> (02.10.2018)

## Conclusive remarks

The main focus of the present paper is Estonian aspectual triplets that emerge by means of aspectual particles and the partitive object case (expressing secondary imperfectivization). The expression of the semantics of this specific Slavic aspectual category employs rather different means in Estonian. In Slavic, verbal morphology is employed to express secondary imperfectivization, while in Estonian, it is object case marking. However, aspectual triplets emerge as a systematic commonality between Estonian and Slavic aspect.

The cluster of features that determine aspectual triplets in Estonian may be an internal development that is regular, evolving along a grammaticalization path that is similar in the two languages in contact. If, however, there emerge unrelated and non-clustered features and developments that characterize the Slavic aspectual system, then we can assume Slavic influence. The study relied on previous sources that discuss aspect and more specifically, perfectivity and imperfectivity in comparison with Finnish. Perfectivity expressed by an aspectual prefix or particle that is not directly related to a measuring argument such as an incremental theme or path is another considerable structural change towards the grammaticalization of aspect. It is not clear if this development is evidence of Russian or Baltic influence, or whether it is an independent, language-internal development.

In Estonian, there are traits that have emerged in the course of its recorded development that are not shared by Finnish. The Estonian object case alternation, from its common or 'own' inventory of morphosyntax, is used for the formation of the categories for perfectivity, imperfectivity, and also, for secondary imperfectives. Aktionsart particles, on the other hand, may well be an internal development, but the existing inventory stems from a German or Low German inventory of morphosemantics, and their distribution resembles present-day Germanic syntax (German and Dutch). The particles are separable and typically employed to express the

concept of telicity and result as in those languages. In Estonian, the particles are also related to expressing information structure (cf. Metslang 2001), which may have prevented the emergence of verbal prefixation as in Baltic and Russian contact languages. So while no perfective particle forms are directly taken from Russian, other forms (a) introduced from its own morphosyntactic inventory (case alternation of objects and some subjects) that is probably reinforced by additional Baltic influence and (b) loaned from other contact languages such as Germanic and probably also reinforced by additional Baltic influence, have aligned to express the conceptual distinctions characteristic of Russian aspect: perfectivizing and secondary imperfectivizing.

Even if the present paper does not take a stance as concerns the temporal and directional nature of the phenomena, the study on the frequency of the particle suggests that a directionality is plausible, since the Northeastern and Southeastern dialects stand in stark contrast; the frequency of the particle is lower in the former, so we can hypothesize that there is a contact phenomenon. The study may thus also provide support for the idea that Estonian grammar is placed typologically between Finnic and SAE (Metslang 2009).

Although precise quantitative analyses are left for further studies, the regularity of the parallels between the two aspectual systems in comparison with Finnish, a related Finnic contact language, indicate more similar aspectual semantic categories in Russian, paired with more regular morphological means of expressing them, as in the formation of aspectual triplets.

The phenomenon of aspectual triplets is a potentially relevant starting point for studies targeting the links between structural language change and culture. In Russian, as well as in Estonian, where verbal particles or verbal prefixes express results, the third member of an aspectual triplet is recruited to express a goal, an intended result that has not been attained. An interesting further cultural question may be, to which extent the emergence of the Estonian triplets can be attributed to Russian interference, as opposed to any

other factor, including a general cultural trend where talking about goals has become culturally more prominent. In any case, the contact language of Russian provides a semantic triplet model to express ongoing, repeating or general events that are oriented towards a morphologically-lexically expressed result state or boundary. This semantic content can easily be expressed by the available lexical and morphological means in Estonian.

#### ABBREVIATIONS

1 1<sup>st</sup> person, 2 2<sup>nd</sup> person, 3 3<sup>rd</sup> person, ACC accusative, ELA elative, GEN genitive, ILL illative, IMP2 secondary imperfective, INE inessive, INF infinitive, MASC masculine, NEG negative, NOM nominative, PAR partitive, PRT particle, PRF perfective (prefix), PL plural, PRS present, PST past, SAE Standard Average European, SG singular, TRA translative

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## ASPEKTIKOLMIKUD EESTI KEELES

Artiklis pööratakse tähelepanu eesti keele aspektinähtusele, mille nimetuseks sobib „aspektikolmik“. Aspektikolmikud võimaldavad eesti keele aspektisüsteemis väljendada tegevuse eesmärgilisust, potentsiaalset tulemuslikkust, kusjuures tulemus on verbi vormiga teatud määral samuti väljendatud. Näiteks olgu vene keele aspektikolmik, kus imperfektiivsele lihtverbile *merit* ‘mõõtma’ vastab perfektiivne prefiksverb *izmerit* ‘(ära/üle/välja) mõõtma’ ja perfektiivsest prefiksverbist saab tuletada sekundaarimperfektiivse verbi *izmerjat* ‘parasjagu/sageli/üldiselt (ära/üle/välja) mõõtma’.

Eesti keeles on levinud leksikaalsed imperfektiivse-perfektiivse aspekti paarikud, näiteks *mõõtma* ja *välja mõõtma*. Aspektipaarikuid esineb rohkelt ka germaani keeltes, näiteks hollandi *meten* ‘mõõtma’ ja *uitmeten* ‘välja mõõtma’. Soome keele leksikonis sarnased partiklist ja verbist koosnevad aspektipaarikud aga levinud ei ole, seega realiseerub soome aspektisüsteemis imperfektiivse-perfektiivse vastandus pigem sihitisekäände vaheldumise kaudu: *mitata/mitoittaa* ‘(ära/üle/välja) mõõtma’.

Kuna eesti keeles saab kombineerida sihitisekäände morfoloogilist vaheldumist (sarnasus soome keelega) ja leksikaalseid aspektipaarikuid (sarnasus germaani keeltega), siis esineb ka võimalus moodustada aspektikolmikuid sarnaselt slaavi keeltega. Eesti keele kolmikute kolmas liige moodustatakse partitiivobjekti abil aspektipartikliga verbist, nagu näiteks lauses *Teadlane mõõdab CO<sub>2</sub> emissiooni mahtu välja* (partitiivobjekt: *mahtu*, partikkelverb: *mõõdab välja*).

Keele ja kultuuri kokkupuutepunktide kontekstis on huvitav, kas kolmikud, mis iseloomustavad slaavi keeli, levivad eesti keeles pigem vene keele kontaktnähtusena või tänu suurenenud vajadusele

ning vabadusele seada ja mõista kestvaid tegevusi tulemuste kaudu. Artikkel piirdub kontaktnähtuste rolli selgitamisega.

**Võtmesõnad:** aspekt, tegevuslaad, partitiiv, sihitis, verbipartikkel, tegusõna semantika, sekundaarimperfektiiv, vene keele kontaktimõju, eesti murded