

Syntactic and aspectual functions of Latvian verbal prefixes in Livonian¹

Abstract This paper presents an analysis of an assumed contact-induced change in the Livonian modes of expressing perfective aspect: the adoption of Latvian-origin verbal prefixes expressing perfective aspect. The main objective of this article is to determine whether long-standing contact between Livonian and Latvian has led to the introduction of verbal prefixes as both pure lexical elements and, in parallel, as markers of grammatical functions that distinguish Livonian from its closest cognate languages. The current study is based on the data derived from unpublished recordings and published written material representing spoken Livonian, already extinct as a first language in the traditional speech area.

There are a total of eleven Latvian-origin verbal prefixes in Livonian, a language which usually does not display this category. The prefixes are as follows: *aiz-*, *ap-*, *at-*, *ie-*, *iz-*, *nuo-*, *pa-*, *pie-*, *põr-*, *sa-*, and *uz-*. In Latvian, most of these items can be used as bound verbal prefixes and also prepositions marking adverbial functions. In Livonian, these prefixes can be combined with both Livonian and Latvian verbs but, as a rule – except for *pa-* – they do not occur as prepositions. The frequency of their occurrence in the data varies considerably and, presumably, corresponds to the degree that a given prefix may derive perfective verbs. In fact, verbal prefixation can be considered, to some extent, a means for expressing perfective aspect in Livonian, thereby adding a secondary strategy to the inherent Finnic way of expressing aspectual oppositions, namely the object case alternation and verbal particles.

Keywords language contact, aspect, aspectual opposition, perfectivity, verbal prefixes, Livonian, Latvian

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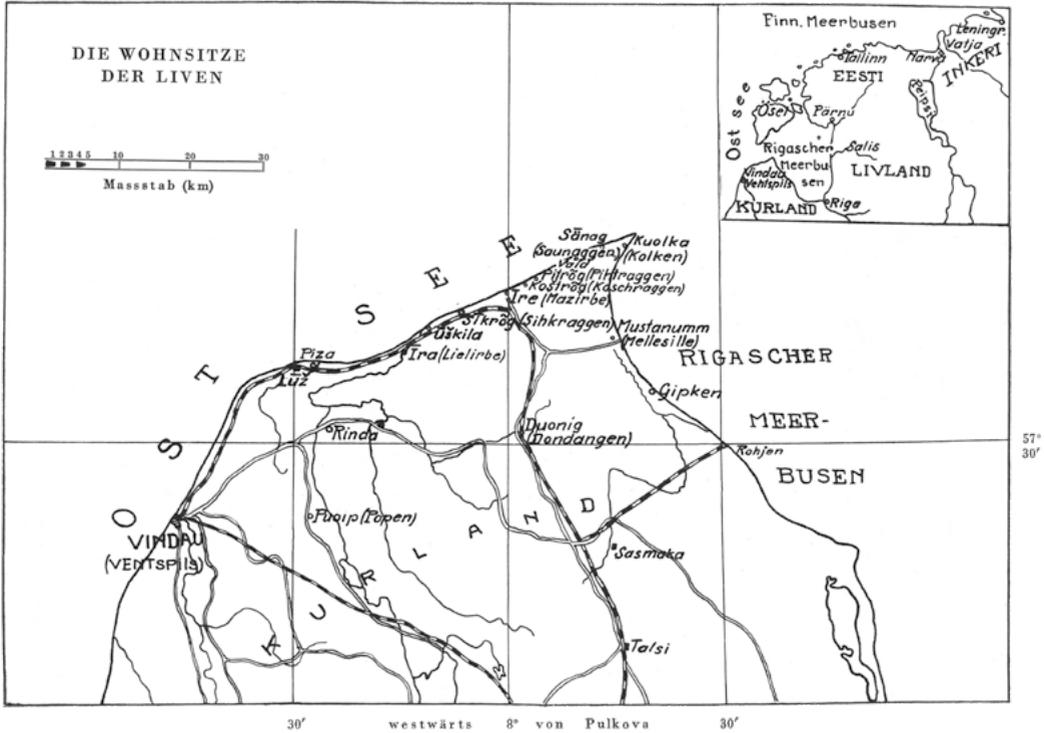
1. Introduction

In this article I will examine how intensive language contact between two genetically unrelated languages has influenced the grammatical system of one of these languages – Livonian – in its role as the recipient language in this language contact situation. This article focuses on the expression of aspect, more precisely perfectivity, in spoken Courland Livonian by means of Latvian verbal prefixes. Historically, the influence of language contact and the extensive Livonian-Latvian bilingualism characteristic of Courland Livonian speakers was very strong already during the time it was first documented. Therefore, the Latvian influence on Livonian has been considerable not only lexically but also grammatically. (See, e.g., Ernštreits & Kļava 2013, 2014; Grünthal 2003: 161–202, 2015; Rudzīte 1994; Suhonen 1973, 1974: 62–101; Wälchli 2000.) An example of this influence is the use of Latvian verbal prefixes in Livonian and the change they have induced in the Livonian aspect system.

Courland Livonian was traditionally spoken in twelve villages located on the Livonian Coast along the northwestern coast of the Baltic Sea and the Gulf of Rīga in Courland, Latvia. This area is part of the present-day municipalities of Ventspils and Dundaga.

1.1. Aspect as a topic of research

In recent studies, aspect has been treated both at a more general level and in language-specific studies. The large variety of terms and concepts used to describe this phenomenon is striking. Aspect is described as a temporal category that focuses on “the internal temporal constituency of a situation”, as stated in Comrie’s (1976: 3) classic definition, while another temporal category, tense, locates a situation in time. Dahl (1985: 23), however, found Comrie’s definition based on semantics problematic, because it makes it difficult to distinguish tense and aspect from each other. Therefore, temporal reference often limits, for example, aspectual categories and this definition of aspect cannot be separated from time. Comrie (1976: 16) defined perfective aspect as presenting a situation as a single whole, and not separating it into different phases that form that situation. Dahl (1985: 74) called this



Map 1. Livonian villages on the Livonian Coast. Map from Kettunen (1938: III).

definition the “totality” view of perfectivity, that is, imperfective and perfective aspects are distinguished by the notion of totality. He developed Comrie’s definition concentrating on defining perfective verbs by adding that events denoted by the verbs have a result or end-state and they are located in the past. He also added that perfective categories have a strong tendency to appear only in past time reference. Klein (1994: 16) summarized aspect as the speaker’s viewpoint regarding the temporal course of an event or action. A relatively common view is that on the lexical level, aspect is present in the Aktionsart of the verb lexemes, in other words, how the verb lexemes differ in their inherent aspectual characteristics. Different means to express aspect include, for example, verb morphology, adverbials, and specific particles. (Comrie 1976: 1–3, 5, 16; Dahl 1985: 24–27, 69–89; Klein 1994: 16.)

In more recent studies, aspect has been treated from various points of view. Bertinetto & Delfitto (2000) base their approach to aspect on Comrie's (1976) view. They argue that the notions of aspect and Aktionsart (they use the term "actionality") should be kept separate, since these phenomena generally cover different domains, and because aspect proper is primarily an inflectional feature while actionality is a lexical property. The opposing stance is that these are both considered to belong to a single notion of aspect. Also, they emphasize that aspectual properties are also present in tenses along with temporal properties.

Smith (1997) discusses aspect both from a general perspective and in language-specific cases, including, for example, in English, Russian, and Navajo. Smith divides the aspectual meaning of a sentence into two parts: aspectual viewpoint (in her classification: perfective, imperfective, and neutral) and the situation type, or the classes of states or events. Thus, the viewpoint and the situation type result in the aspectual meaning of a sentence, and form the two-component theory. In her treatment of individual languages, Smith analyzes the aspectual systems of these languages concentrating on viewpoint.

In the treatment of aspect, several studies concentrate on individual languages. For example, Borik (2006) seeks to define perfective and imperfective aspect in Russian, along with studying the interaction between different types of aspect and developing a formal theory of (im)perfectivity. Borik distinguishes different levels of aspectual information in Russian: imperfective/perfective opposition, or viewpoint aspect, appears on the level of outer aspect, while the telicity distinction exists on the level of inner aspect. Ziegeler (2006) emphasizes in her versatile treatment of English aspect that verbal aspect is in interaction with other grammatical categories and their development. This viewpoint is present, for example, in her integration of studies of aspect and modality. Ebert (2002) offers a description of the formerly little studied aspectual system of Maltese. The aspectual system of Maltese is like that of the systems of other Arabic dialects. The two Maltese simple finite verb forms are combined tense-aspect forms. In addition, auxiliaries and preverbal particles have a crucial role in the Maltese tense-aspect system.

1.2. An overview of verbal prefixes in Latvian and the Uralic languages

In standard Latvian, there are eleven verbal prefixes, *aiz-*, *ap-*, *at-*, *ie-*, *iz-*, *no-*², *pa-*, *pār-*, *pie-*, *sa-*, and *uz-*, which have been borrowed into Livonian. In addition, two verbal prefixes appear in Latvian: a negative prefix *ne-*, and the prefix *jā-* that is used to form the debitive mood. The total number of prefixes in Latvian is greater than the number borrowed into Livonian (see, e.g., LVG: 146–148, 212–215, 278–286, 486, 789). These prefixes are also used in the so-called Livonian dialects of Latvian, spoken in Courland (Rudzīte 1980: 165). These dialects as well as standard Latvian are possible donors of the prefixes. The use of verbal prefixes is the greatest difference when comparing the expression of perfectivity between Livonian and other Finnic languages. The inherent ways of expressing the opposition between imperfective and perfective actions primarily used in other Finnic languages are diverging case marking of direct objects and alternation between different types of adverbials. Diverging case marking of direct objects, based on the genitive, nominative, accusative, or partitive alternates between individual languages. In Finnish, some personal pronouns such as *minu-t* (I-ACC), *sinu-t* (you.SG-ACC), *häne-t* ((s)he-ACC) also have accusative forms, and accusative is the term used for the non-partitive cases of object in Finnish grammar (e.g., for Finnish, see VISK § 352, § 930–931, § 1498, § 1500; for Estonian, see EKG II: § 487, § 506; Erelt & Metslang 2017; for Veps, see Puura 2007, 2010). Estonian has also developed a secondary way of expressing perfectivity by using so-called bounders, such as the verbal particles *ära* ‘off, away’ and *valmis* ‘ready’ (Metslang 2001). Livonian employs this method too, and often uses the particle *jarā* ‘off, away’ (Tveite 2004). In addition to Estonian verbal particles, Wälchli (2001: 419) also considers Livonian and Latvian verbal particles as well as Baltic prefixes as bounders, which have grammaticalized to different degrees. Prefixes are the primary way to express perfectivity in Latvian (see, e.g., Endzelin 1922; LVG: 533; Wälchli 2001: 433). Considering the intensive influence that Latvian has had on Livonian,

2. The Latvian letter *o* stands for three phonemes: the diphthong /uo/ and the vowels /ɔ/, /ɔ:/, which appear only in loanwords (Auziņa 2014–2016; LVG: 23.).

prefixes presumably have a considerable role in marking perfectivity in Livonian as a method parallel to the object case alternation.

In Uralic languages, prefixation is not an inherent feature. Thus, in the Uralic framework, Livonian appears exceptional compared to most other Finnic languages as well as Uralic languages in general. In Finnish and Estonian, however, certain word formation strategies and use of shared grammatical elements in head-initial marking can be considered as the emergence of negative prefixes: in Finnish *ei-*, for example *ei-toivottu* ‘unwanted’ and *epä-*, for example *epä|onni* ‘misfortune’, in Estonian *eba-*, for example *eba|õnn* ‘id.’ respectively. Borrowed prefixes occur in similar instances, for example *ir-* in Finnish *irrationaalinen* ‘irrational’, in Estonian *irratsioonaalne* ‘id.’. Nevertheless, these are mainly attached to nouns forming antonymic pairs and are more clearly used as a word formation strategy or even as fully lexicalized forms. Still, Livonian is not the only Finnic language, which has adopted verbal prefixes. Veps and Karelian have borrowed some Russian prefixed verbs, which occur most typically in code-switching instances. However, as a rule, these prefixes are only occasionally used in conjunction with other verbs. Furthermore, Leivu, an extinct South Estonian dialect that was spoken in northeastern Latvia, also used borrowed prefixes from Latvian. Considering other Uralic languages, verbal prefixes are also found in the Ugric languages Khanty and Mansi and especially in Hungarian as well as in Selkup. (EKG I: § 254, § 399–400, § 448; Honti 1979: 12, 2007: 49; Kiefer & Honti 2003: 137–138; Mägiste 1937: 3–4, 16, 20; VISK § 172, § 1630–1631; Wälchli 2001: 418.)

1.3. The objectives of the study

My main hypothesis is that verbal prefixation in Livonian is not merely a lexical feature but has a grammatical impact as well.

This paper has a threefold objective.

- 1) It seeks to determine whether Latvian-origin verbal prefixes actually introduce a new grammatical category expressing perfective aspect in Livonian, and if so, which prefixes are used in this function.

- 2) With which verbs and verb types do these prefixes appear in Livonian? Are the verbs that occur with verbal prefixes historically Livonian words or are they borrowed from Latvian; in the latter case, perhaps as a combination of a prefix and verb. A further question is, whether it is possible to separate some groups of verbs on a semantic basis.
- 3) How does expressing perfective aspect in Livonian with verbal prefixes correspond to the same in Latvian.

A typical instance of Latvian-origin verbal prefixes in Livonian in this context is presented below in example (1). Two Latvian-origin verbal prefixes *uz-* ‘on; onto, to’, and *iz-* ‘out’ appear with the Livonian verbs, *kērat-ō* (write-INF) ‘write’, and *lugg-ō* (read-INF) ‘read’. In comparison with Latvian, these are the same prefixes which are used with the semantically equivalent Latvian verbs *rakst-īt* (write-INF) ‘write’ and *las-īt* (read-INF) ‘read’ expressing perfective aspect and completed function. The verb forms *uz-rakstī-t* (PVB-write-INF) ‘write’, and *iz-lasī-t* (PVB-read-INF) ‘read’ are illustrative examples of the intertwining of aspectual marking, eventually leading to lexicalized verb derivations (examples (2) and (3)³).

- (1) Livonian (PK)

<i>un</i>	<i>pālō</i>	<i>um</i>	<i>uz-kērat-ōd</i>	
and	onto	is	on-write-PPP	
<i>vāggō</i>	<i>lālam</i>	<i>siz</i>	<i>vōļ</i>	<i>iz-lugg-ō</i>
very	difficult	then	was	out-read- <small>INF</small>

‘and it was written on it, it was then
very difficult to read it (make it out)’

- (2) Latvian (Diena 17.3.2014)

<i>Grāmat-u</i>	<i>iz-lasīj-a</i>	<i>Latvija-s</i>	<i>vēstnieks</i>	<i>ASV...</i>
book-ACC	PVB-read.PST-3	Latvia-GEN	ambassador	USA

‘The Latvian ambassador in the US read the book...’

3. Here and henceforth the Latvian examples are presented in the orthography of Standard Latvian and are drawn from newspaper texts available on the internet.

(3) Latvian (Latvijas Avīze 20.2.2013)

<i>Viņš</i>	<i>uz-rakstīj-a</i>	<i>otr-u</i>	<i>disertācij-u...</i>
he	PVB-write.PST-3	second-ACC	dissertation-ACC

‘He wrote a second dissertation...’

1.4. Previous research on Livonian verbal prefixation

Linguists observed verbal prefixation in Livonian already in the 19th century. For example, the phenomenon is mentioned in the first Livonian grammar by A. J. Sjögren (1861: 43–45). Sjögren, however, does not use the term prefix. The prefixes, which have historically evolved from Latvian prepositions (see Table 1.), are labelled as prepositions, whereas prefixes having a different origin are labeled as particles. Sjögren’s main aim is to briefly describe this phenomenon in Livonian with examples and translations into German. The grammar does not discuss this topic more extensively and lacks a description of the functions of these prepositions and particles. It is noteworthy that Sjögren takes a critical attitude towards what he finds in Livonian by claiming that the use of these prepositions and particles is “against the spirit of the Finnic languages”.

The most extensive study on Latvian-origin verbal prefixes in Livonian thus far is de Sivers’ study (1971). This study is a general overview of the verbal prefixes and their use in Livonian, analyzing, for example, the relationship between prefixes and adverbs that are attested and more commonly used in Finnic languages. The assumed aspectual function of verbal prefixes is not discussed in more detail as a subject of its own. According to de Sivers (1971: 76), perfectivity is marked in Livonian only with the prefix *nuo-* ‘of; from’. Furthermore, she states, that the perfective use originates mainly from the functional model of the adverbial synonym *jara* ‘off, away’ (also *jarā, jerā, jārā*). Regarding other prefixes, an exact definition of their aspectual functions is not clear. Nevertheless, as the more detailed analysis of individual cases shows below, the grammatical role of the investigated prefixes needs to be discussed from other perspectives as well.

More recent research also has focused on the Latvian verbal prefixes in Livonian. Wälchli (2001: 418) offers a very brief description of the Latvian prefixes and their use in Livonian. He argues that the prefix *nuo-* ‘of; from’ is used as a default prefix in Livonian. Ernštreits & Kļava (2013) describe the Latvian influence on Livonian grammar and Ernštreits & Kļava (2014) discuss the mutual contacts between Latvian and Livonian and the grammatical changes these contacts have induced. Both papers offer a short description of the use of the prefixes in Livonian and emphasize that their use is a recent and not extensive development. Ernštreits & Kļava also note that Latvian has served as an example when Livonian adverbs have developed into prefixes, for example *ilz-nūz-ō* (up-rise-INF) ‘get up’.

Verbal prefixation in Livonian is also a subject in a few typological studies. Arkadiev (2014) and (2015) are areal-typological studies of prefixal perfectivization. Arkadiev (2014) mentions Livonian as an example of a language without native prefixes that has borrowed prefixes and their functions, including imperfective and perfective aspectual opposition, as a result of intensive language contact. Arkadiev (2015) aims to describe aspectual systems based on verbal prefixes by distinguishing typologically considerable features and to find areal features and possible correlations in these features, for example in the degree of grammaticalization of aspectual categories. Livonian is discussed in relation to the influence of language contacts in the field of prefixal perfectivization. Arkadiev concludes that Slavic-like aspectual categories do not arise in languages using verbal prefixes as a result of contact with Slavic or Baltic languages, whether the prefixes are native or borrowed as in Livonian. The systems are either less grammaticalized or grammaticalized but divergent from the Slavic system. Arkadiev (2017) deals with contact-induced borrowing of verbal prefixes and their functions in a few languages, including Livonian. He concludes that the new aspectual systems in the recipient languages are noticeably less grammaticalized or based on different principles than grammatical aspectual categories in the donor languages, despite intensive language contacts.

2. Verbal prefixes expressing perfective aspect in Latvian⁴

In general, Latvian verbal prefixes are used to express various grammatical functions and employed in both inflection and derivation as a means of word formation and indexing adverbial syntactic functions. As stated previously, in Latvian, there are altogether thirteen verbal prefixes, *aiz-* ‘behind’, *ap-* ‘around, about’, *at-* ‘away; back’, *ie-* ‘in, into’, *iz-* ‘out’, *no-* ‘of; from’, *pa-* ‘along, on, in; by; under; slightly’, *pār-* ‘over, across’, *pie-* ‘by, at’, *sa-* ‘together’, *uz-* ‘on; onto, to’, a negative prefix, *ne-*, and *jā-* used to form the debitive mood. The latter two have no role in the expression of perfectivity. The prefixes *no-* ‘of; from’ and *sa-* ‘together’ are particularly common in Latvian. The verbal prefixes are highly grammaticalized in Latvian, for example they cannot appear by themselves without the verb, and they are only one-syllable-long units. This is in accordance with the general phonological typology of prefixes as they tend to be short, consisting most often of a single syllable in various languages. Bisyllabic prefixes seem to be comparatively rare. The aspectual function of the prefixes in Latvian, however, is considered to have been grammaticalized only to a lesser extent, especially compared to the Slavic languages. This is particularly evident in many biaspectual verbs in Latvian. (Arkadiev 2015: 284; Hall 2008: 535–536, 538–539; Holvoet 2001: 132, 147, 157; Kalnača 2014: 93; LVG: 217, 284–285, 486; VISK § 172; Wälchli 2001: 414.)

Latvian employs a few means to distinguish imperfective and perfective aspect. First, verbal prefixes characteristically mark perfectivity by adding a prefix to an imperfective unprefix verb, for example *ie-t* (GO-INF) ‘go’ – *ie-ie-t* (PVB-GO-INF) ‘go in’, and *rakstī-t* (write-INF) ‘write’ – *uz-rakstī-t* (PVB-WRITE-INF) ‘write onto; finish writing; write (all)’; see also example (3). Thus, prefixed verbs make a distinction between two aspectual types: imperfective/perfective aspect and semelfactive/iterative aspect. The latter in Latvian is expressed by suffixation along with several morphophonological features (see, e.g., Kalnača 2014: 91, 105–109; LVG: 539–541). In addition, inchoative

4. I am grateful to Uldis Balodis for his valuable comments concerning Latvian.

and durative aspects are distinguished in Latvian. All above-mentioned prefixes, except the negative prefix *ne-* and debitive marker *jā-*, mark perfective verbs. It must be noted, however, that perfective meaning depends also on the lexical meaning of an unprefixated verb and the interaction of the lexical meaning and the prefix, as well as the semantics of the context. Verb stems typically express activities and states, while, for example, the notions of achievement and accomplishment are expressed by means of prefixes. Thus, in these compounds a prefix expresses completion of the process or the activity expressed by a verb stem, for example, *darī-t* (do-INF) ‘do’ – *pa-darī-t* (PVB-do-INF) ‘do, make; accomplish’, *redzē-t* (see-INF) ‘see’ – *sa-redzē-t* (PVB-see-INF) ‘see (catch sight of)’, *ēs-t* (eat-INF) ‘eat’ – *sa-ēs-t-ies* (PVB-eat-INF-RFL) ‘eat [a lot], eat to satiety’. (Endzelin 1922: 739; Holvoet 2001: 146; Kalnača 2014: 89, 91–93, 109, 112; LVG: 531, 534; MLLVG: 569–570; Wälchli 2001: 414, 433.)

Second, two syntactic means expressing imperfective/perfective aspectual opposition are constructions of an unprefixated verb and an adverb (a phrasal verb) and, in certain contexts, biaspectual (aspectless) verbs. The aspectual opposition is manifested by an imperfective construction formed by an unprefixated verb and a local adverb and perfective prefixed verb, for example, *ie-t iekšā* (go-INF inside) ‘go in’ – *ie-ie-t* (PVB-go-INF) ‘id’.⁵ The majority of these verb pairs are verbs of motion. Biaspectual verbs can be unprefixated verbs or prefixed verbs, which express both imperfective and perfective actions, for example, *do-t* (give-INF) ‘give’, *pār-dot* (PVB-give-INF) ‘sell’. Third, perfect tense forms are also used to express perfective aspect in Latvian, for example, *rakst-u* (write-1SG) ‘I write’: *esmu rakstījis* (be.1SG write.PST-PA.SG.M) ‘I have written’. (Holvoet 2001: 146–147; Horigučī 2017: 70; Kalnača 2014: 92, 95–105, 111–112; Wälchli 2001: 414.)

Even though prefixed verbs usually express perfectivity, the combination of a prefix and a verb in Latvian does not necessarily refer to a perfective action. A prefixed verb can also be imperfective in certain cases. This applies, for example, to biaspectual (aspectless) verbs (see Endzelin 1922: 738–739; Kalnača 2014: 102–105). Usually, when

5. A construction formed by an unprefixated verb and an adverb has also other interpretations besides that of imperfective, see, e.g., the discussion in Kalnača 2014: 96–97.

combined with a verb, a prefix simultaneously expresses perfectivity and modifies the lexical meaning of the verb spatially, temporally, or quantitatively. Spatial expressions are typical for the prefixes developed from the spatial prepositions, for example, *at-nes-t* (PVB-bring-INF) ‘bring’, *ie-nes-t* (PVB-carry-INF) ‘carry, bring in’, *iz-nes-t* (PVB-carry-INF) ‘carry, bring out’, *uz-nes-t* (PVB-carry-INF) ‘carry, bring up’. Temporal meaning can focus on the beginning of the action, for example, *aiz-smēķē-t* (PVB-smoke-INF) ‘start to smoke’, or point to a momentary, sudden action, for example, *ie-raudā-t-ies* (PVB-cry-INF-RFL) ‘start to cry and quickly stop’, *ie-smie-t-ies* (PVB-laugh-INF-RFL) ‘burst out laughing; laugh once and then stop’, *sa-bī-t-ies* (PVB-fear-INF-RFL) ‘get frightened, startle’. Quantitative meanings are, for example, *pa-gulē-t* (PVB-sleep-INF) ‘sleep a little, take a nap’, *pār-ēs-t-ies* (PVB-eat-INF-RFL) ‘eat to excess’. It is not unusual for a prefix to be polysemic and express, in addition to perfectivity, additional lexical meanings. For example, the verb *pa-līs-t* (PVB-crawl-INF) can have both a spatial perfective meaning ‘crawl under sth’ and a quantitative perfective meaning ‘crawl a little’. It is also possible, that a prefix, functioning as a *préverbe vide* (the term used by Holvoet 2001), only derives a perfective verb without changing or modifying the lexical meaning of a verb. Examples of this kind of verb pairs are, for example, *cep-t* (roast-INF) – *iz-cep-t* (PVB-roast-INF) ‘roast; fry; bake’, *pirk-t* (buy-INF) – *no-pirk-t* (PVB-buy-INF) ‘buy’, *darī-t* (do-INF) ‘do’ – *pa-darī-t* (PVB-do-INF) ‘do, make; accomplish’, *maksā-t* (pay-INF) – *sa-maksā-t* (PVB-pay-INF) ‘pay’. This characteristic is especially typical for the prefixes *iz-* ‘out’, *no-* ‘of; from’, *pa-* ‘along, on, in; by; under; slightly’, and *sa-* ‘together’, and less frequently also for *aiz-* ‘behind’, *ap-* ‘around, about’, *pie-* ‘by, at’, and *uz-* ‘on; onto, to’. The estimation on how widely verbal prefixes appear as *préverbes vides* varies between authors. According to LVG (534), there are just a few of this type of verb pair, in which the prefix adds only a perfective meaning; Kalnača (2014: 93) also limits this to a few verb pairs, while Holvoet (2001: 132, 147) considers this phenomenon not to be rare at all. Holvoet (2001: 135–136, 147) also remarks that only verb pairs derived with *préverbes vides* are purely aspectual, but often it is not clear, whether there is a purely aspectual opposition or whether the prefix still has a lexical meaning. (Endzelin 1922: 739–740; Kalnača 2014: 93–94; LVG: 534; MLLVG: 567–569.)

In the Latvian grammatical tradition, prefixal derivation has been ambiguously treated (see Kalnača 2014: 89–90). These items are characteristically defined as prepositions, which are used as a first component of a compound, or as a morpheme, a prefix, with which verbs, nouns, and adjectives are derived. The Latvian prefixes have evolved from identical prepositions and most of them still maintain this bi-functional relation both structurally and semantically. However, the meanings and use of prefixes are not limited to their semantics and functions as prepositions. The prefixes *at-* ‘away; back’, *ie-* ‘in, into’, *iz-* ‘out’, and *sa-* ‘together’ are exceptions, as these are not used as prepositions in an adnominal function in modern Latvian. The meaning of the prefix *ie-* ‘in, into’ is close to the meaning of the adverb *iekšā* ‘inside’, whereas the sociative meaning of the prefix *sa-* ‘together’ has a parallel in the adverb *kopā* ‘together’. (LVG: 216–217, 284–285.)

The primary meanings of prepositions which most commonly occur as verbal prefixes are presented in Table 1.

preposition	primary meanings
<i>aiz</i>	‘behind’
<i>ap</i>	‘around, about’
<i>no</i>	‘of; from’
<i>pa</i>	‘along, on, in; by; under; slightly’
<i>pār</i>	‘over, across’
<i>pie</i>	‘by, at’
<i>uz</i>	‘on; onto, to’

Table 1. The primary meanings of certain Latvian prepositions.

A characteristic feature of the prefixes is that the same item can have both an adnominal and an adverbial function. In their adnominal function, they act as prepositions and require a particular case for their headword. In their adverbial function, they generally modify the lexical meaning of the verb and can also function as a perfectivity marker. Their semantic variety is also broad. A characteristic feature for prefixes when creating verb forms is that the same prefix can add different meanings when combined with different stems and also different prefixes can add the same meaning. For example, the prefix *at-* ‘away; back’ can express both the meaning ‘direction here’, for example,

at-skrie-t mājās (PVB-run-INF home.LOC) ‘run home (from somewhere else)’ and the meaning ‘direction away, off’, for example, *at-grūs-t no sien-as* (PVB-push-INF of wall-GEN) ‘push away from the wall’. (Kalnača 2014: 92–93; LVG: 212–220, 267–269, 278–286, 534, 625–627.)

3. The data

This study is based on data derived from unpublished recordings and published written material of spoken Courland Livonian. The recordings were made by Professor Seppo Suhonen in Tallinn, Estonia in the 1970s and early 1980s. In total, there are 51 hours of recordings, of which only a small share has been published (see Suhonen 1975). Of these, I have transcribed one hour from one informant to be used in this study (referred to later as PK). In addition, I have also used material from Mägiste’s (2006) collection of narratives. I have included all prefix and verb combinations in my data. Altogether there are 461 verbal prefix occurrences. The narrative stories of the applied data include recollections, for example, childhood memories, how to celebrate different holidays, how Livonians managed to flee from the Livonian Coast during the Second World War, as well as depiction of customs and traditions (e.g., funerals, fishing, how to brew beer).

In Livonian, the use of verbal prefixes varies depending on the speaker. Suhonen (1972: 218) mentions two observations regarding this. Younger speakers are more likely to use the prefixes and an individual Livonian speaker can also deliberately avoid using them (see also Suhonen 1975: 3). Also, the phenomenon seems to be spread irregularly along the Livonian Coast: on some occasions, in the Livonian villages of Vaid and Sīkrōg, the prefixes are used less frequently or not at all (Ernštreits & Kļava 2014: 83). The language in both of these villages is defined as the Eastern dialect of the Livonian language, but the villages do not neighbor each other.

All eleven Latvian prefixes borrowed into Livonian occur in the data, some of them more often than others. The number of the occurrences of each individual prefix is shown in Table 2.

prefix	number of occurrences
<i>aiz-</i> ‘behind’	16
<i>ap-</i> ‘around, about’	26
<i>at-</i> ‘away; back’	23
<i>ie-</i> ‘in, into’	27
<i>iz-</i> ‘out’	69
<i>nuo-</i> ‘of; from’	133
<i>pa-</i> ‘along, on, in; by; under; slightly’	6
<i>pie-</i> ‘by, at’	33
<i>pōr-</i> ‘over, across’	5
<i>sa-</i> ‘together; multitude’	67
<i>uz-</i> ‘on; onto, to’	56
Total	461

Table 2. The number of occurrences of each individual prefix in the data of this study.

As Table 2 shows, there are significant differences in the number of occurrences of each individual prefix. One prefix, *nuo-* ‘of; from’, has a particularly high frequency in the data (ca. 29% of all occurrences). The frequent use of this prefix was also noted by de Sivers (1971: 76–79). According to Wälchli (2001: 418, 428), the same prefix *no-* is also the most common one in Latvian. The prefixes *iz-* ‘out’, *sa-* ‘together; multitude’, and *uz-* ‘on; onto, to’ are quite frequent as well, whereas the prefixes *pa-* ‘along, on, in; by; under; slightly’ and *pōr-* ‘over, across’ are rare. In Mägiste’s data (1937: 13–14), these frequencies are slightly different. In his data, the three most frequent prefixes are *pie-* ‘by, at’, *nuo-* ‘of; from’, and *sa-* ‘together; multitude’. In my data, the prefixes *iz-* ‘out’, and *uz-* ‘on; onto, to’ are highly frequent, but in Mägiste’s data these prefixes, as well as *ap-* ‘around, about’, *at-* ‘away; back’, and *ie-* ‘in, into’, only have average frequency. The least frequent prefixes in Mägiste’s data are *aiz-* ‘behind’, *pa-* ‘along, on, in; by; under; slightly’ and *pōr-* ‘over, across’, which are also the least frequent in my data.

4. Verbal prefixes in Livonian

In order to examine different combinations between verbs and verbal prefixes, I have grouped prefixed verbs into subgroups on an etymological and semantic basis. The verbs are grouped on the basis of their origin, namely, whether the entire prefixed verb is a loan from Latvian or the verb stem is Livonian but has a Latvian prefix. (See also Suhonen 1972: 218, 1985: 113–115.)

The borrowed Latvian prefixed verbs form a numerous group in Livonian. They have been borrowed as whole verb forms, for example, *at-burr-õ* (back-cast_a_spell-INF) ‘cast a counterspell’ (see Latvian *atbur-t* (PVB-cast_a_spell-INF) ‘id.’; example 4), *iz-duođ-õ* (out-give-INF) ‘succeed, manage’ (see Latvian *iz-do-t-ies* (PVB-give-INF-REFL) ‘id.’), *iz-tiekk-õ* (out-arrive-INF) ‘subsist’ (see Latvian *iz-tik-t* (PVB-arrive-INF) ‘id.’), and *nuo-plutsīņ-țõ* (of-clean-INF) ‘clean’ (see Latvian *no-plucinā-t* (PVB-clean-INF) ‘1. pick off, pluck off, plume; 2. scald’; example 5).

(4) Livonian (Mägiste 2006: 138)

<i>un</i>	<i>siz</i>	<i>um</i>	<i>ikš</i>	<i>tuoi</i>	<i>burānikkā,</i>
and	then	be.3SG	one	other	witch
<i>se-m</i>	<i>at-burr-õn,</i>	<i>ku</i>	<i>lāpš</i>		
it-be.3SG	back-spell-APP	that	child		
<i>āb</i>	<i>ūo</i>	<i>rāukk-õn</i>	<i>jembet.</i>		
NEG	be.CNG	cry-APP	more		

‘And then another witch, (s)he has cast a counterspell,
(so) that the child has not cried anymore.’

(5) Livonian (PK)

<i>gadāg-vied-kōks</i>	<i>no-plutsīņ-țõd</i>
juniper-water-INS	of-clean-PPP

‘cleaned with juniper water’

In my data, 71 Livonian verb stems combine with the prefixes. Frequent Livonian stems in the data are, for example, *kīt-õ* (say-INF) ‘say, tell’ (see example 6), *lā-dõ* (go-INF) ‘go’ (see examples 16, 18, 30, 35, 37), *pān-da* (put-INF) ‘put, set’ (see examples 15, 18, 27, 30), *tīe-dõ* (do-INF) ‘do, make’ (see examples 9, 20, 23, 25, 36), *tūl-da* (come-INF) ‘come’ (see examples 11, 16, 36), and *vaņļl-õ* (look-INF) ‘look, watch’. Examples (6) and (7) show the verb stems *kītõ* ‘say, tell’ and *vall-õ*

(pour-INF) ‘pour’. The verb *kītō* is a Finnic verb, while the verb *vallō* is used in the Finnic and Mordvin languages (SSA 1: 360; SSA 3: 397).

(6) Livonian (Mägiste 2006: 100)

<i>nā-d</i>	<i>ku</i>	<i>kovāl</i>	<i>ta</i>	<i>vōļ</i> ,
see-2SG	that	wise	(s)he	be.PST.3SG
<i>ku</i>	<i>ta</i>	<i>iz</i>	<i>iz-kīt</i>	<i>taisnīp-t!</i>
when	(s)he	NEG.PST	out-tell	truth-PRT

‘You see that (s)he was wise, when (s)he did not tell the truth!’

(7) Livonian (PK)

<i>siz</i>	<i>ie-valā-b</i>	<i>sie</i>	<i>sūr-ōz</i>	<i>baļļō</i>	<i>sizzōļ</i>
then	in-pour-3SG	it.NOM-GEN	big-ILL	basin.ILL	into

‘Then pour it into the big basin.’

The Livonian calques of Latvian-origin verbs are typically identical with their cognates in the source language (Suhonen 1985: 113). Also, the semantic correspondence with parallel Latvian prefixed verbs is high for the resulting Livonian prefixed verbs (Rudzīte 1996: 4; de Sivers 1971; Suhonen 1972: 219). This applies also to the functions of these prefixed verbs. According to Mägiste (1937: 22) these verbs are half-translated, in which the first part, that is, the prefix, is a lexical loan, whereas the second part is translated from Latvian. Suhonen (1972: 218) calls them partial calques. These verbs could also be considered as loanblends, i.e., borrowings, which contain both borrowed and native elements (Haspelmath 2009: 39). The following verbs illustrate this kind of word formation: *uz-kērat-ō* (on-write-INF) ‘write’ (see Latvian *uz-rakstī-t* (PVB-write-INF) ‘id.’; example 1), *iz-lugg-ō* (out-read-INF) ‘read’ (see Latvian *iz-lasī-t* (PVB-read-INF) ‘id.’; example 1); unprefixed verbs being *kērat-ō* (write-INF) ‘write’ (see Latvian *rakstī-t* (write-INF) ‘id.’), *lugg-ō* (read-INF) ‘read’ (see Latvian *lasī-t* (read-INF) ‘id.’).

Livonian prefixed verbs with Livonian verb stems also share a common feature when it comes to a link between certain verb stems and prefixes. For a number of Latvian prefixed verbs, there is a formal connection between the prefix and verb, but not a semantic connection, i.e., the meaning of the prefixed verb is case-specific (Kalnača 2014: 95). This is also seen in certain Livonian prefixed verbs, for

example, *pie-and-õ* (by-give-INF) ‘forgive’ (see Latvian *pie-do-t* (PVB-give-INF) ‘id.’) and *pie-pall-õ* (by-request-INF) ‘worship’ (see Latvian *pie-lūg-t* (PVB-request-INF) ‘id.’); the corresponding unprefixing verbs are *and-õ* (give-INF) ‘give’ (see Latvian *do-t* (give-INF) ‘id.’) and *pall-õ* (request-INF) ‘request’ (see Latvian *lūg-t* (request-INF) ‘id.’). (See also Wälchli 2001: 418.) Example (8) shows the Livonian verb *pie-pallõ* ‘worship’.

(8) Livonian (Mägiste 2006: 104)

<i>se</i>	<i>võļ</i>	<i>ikš</i>	<i>pālandõks</i>	<i>kūož,</i>
it	be.PST.3SG	one	worship	place
<i>kus</i>	<i>jumāl-d</i>	<i>ui-ž</i>	<i>pīe-pall-õ.</i>	
where	God-PRT	can-PST.3SG	by-request- <small>INF</small>	

‘It was a place for worshipping, where one can worship God.’

The Latvian model has also influenced some Livonian prefixed verbs by encouraging the use of a prefixed verb instead of the original unprefixing verb. A good example of this is the verb *at-mādl-õ* (back-remember-INF) ‘remember’ (example 9); namely, the unprefixing verb *mādl-õ* (remember-INF) also means ‘remember’ (example 10). Its Latvian equivalent is *at-cerē-t-ies* (PVB-hope-INF-RFL) ‘id.’, which is formed with the prefix *at-* and the verb *cerēt* ‘hope’; the prefixed form has a reflexive suffix. The reflexive ending is not unusual for Latvian verbs when a prefix is used, especially when expressing short-term activity, partially resultative activity, the beginning of an activity, an action executed in great amount, and a mostly finished activity (Kalnača 2014: 94; LVG: 278, 534–535). Thus, in Latvian the meaning ‘remember’ is derived with the help of a prefix. This has very likely also influenced the Livonian verb to adopt a prefix.

(9) Livonian (PK)

<i>at-mādlõ-b</i>	<i>ku</i>	<i>veļ</i>	<i>te-i</i>	<i>pastāl-tõ</i>
back-remember-1SG	when	still	make-PST.3SG	pastāl-PRT

‘I still remember when they made *pastāl*-shoes.’

(10) Livonian (Mägiste 2006: 195)

<i>siedā</i>	<i>ma</i>	<i>mādl-õb,</i>	<i>se</i>	<i>võļ</i>	<i>sūr</i>	<i>salāndõm.</i>
it.PRT	I	remember-3SG	it	be.PST.3SG	big	theft

‘I remember that it was a great theft.’

When the basis for grouping Livonian prefixed verbs is semantics, the verbs of motion constitute a distinctive group. Within this group, there are both Livonian- and Latvian-origin verbs. The Livonian verb *tūl-da* (come-*INF*) ‘come’: *tunnõ-d* (come.*PPP-PL*) ‘have come’ (example 11) is attested in all Finnic languages, in Ter Saami, and the Mari languages as well as in some Samoyedic languages (SSA 3: 324). The verb *ratst-õ* (ride-*INF*) ‘ride’: *ratst-õn* (ride-*APP*) ‘have ridden’ (example 12), an early Germanic loanword, has cognates in all Finnic languages (SSA 3: 54). The verb *brouš-õ* (travel-*INF*) ‘travel’ (occurrences *aiz-brouš-õnd* (behind-travel-*APP.PL*) ‘left’ and *ie-brouš-iz-õm* (in-travel-*PST-1PL*) ‘drive in’ in examples 13 and 14) is borrowed from the Latvian verb *brauk-t* (travel-*INF*) ‘go; travel; drive; ride’; inflected forms with the stem alternation are, for example, *brauc-u* (travel-*1SG*) ‘I travel’: *brauc* (travel.*3*) ‘(s)he/they travel(s)’.

- (11) Livonian (Mägiste 2006: 58)

pierrõ passouļ suoddõ ne sāl āt ie-tunnõ-d.
after world war.PRT they there be.3PL in-come.PPP-PL
‘After the World War they came there.’

- (12) Livonian (Mägiste 2006: 18)

ne vól-ṭṭõ ni tikkiž piški irbõ-st
they be-*PST.3PL* now all small Īra-*ELA*
at-ratst-õn õbbiz-t-õks kuolkkõ.
away-ride-*APP* horse-*PL-INS* Kūolka-*ILL*
‘They all have now ridden with horses from Īra to Kūolka.’

- (13) Livonian (Mägiste 2006: 64)

ku mēg vólṃõ aiz-brouš-õnd jetspēņ...
when we be-*PST.1PL* behind-travel-*APP.PL* away
‘When we had traveled away...’

- (14) Livonian (Mägiste 2006: 61)

Õdõ-n kīela seissõ-ks ie-brouš-iz-õm zvīedõr
evening-*ESS* clock seven-*INS* in-travel-*PST-1PL* Swedish
sadāmõ-zõ, mis nuttā-b pa nīnõshammõ-ks.
harbor-*ILL* which call-*3SG* *INS* Nynāshamn-*INS*
‘In the evening, at seven o’clock, we arrived at a Swedish harbor, which is called Nynāshamn.’

In my data, all the Latvian-origin verbs of motion are used in Livonian in the same way as in Latvian. For instance, in (13) and (14), the prefixed verbs *aiz-broutš-õ* (behind-travel-INF) ‘leave’ and *ie-broutš-õ* (in-travel-INF) ‘arrive’ are used in connection with leaving from and arriving at a harbor in the same way as they are used in Latvian: *aiz-brauk-t prom* (PVB-travel-INF PTCL) ‘travel away’ and *ie-brauk-t ostā* (PVB-travel-INF harbor.LOC) ‘arrive at a harbor’.

If one considers Haspelmath’s (2009: 35) claim that borrowing verbs is more difficult than borrowing nouns, it is quite striking that Livonian has borrowed verbs to this extent. He also states that verbs require more grammatical adaptation than nouns. In addition, according to Haspelmath (2009: 37), loanwords are not usually analyzable in the recipient language in the sense that transparent compounds, for example, are understood as compounds in the donor language, but they are unanalyzable and monomorphemic in the recipient language.

5. Aspectual functions of verbal prefixes in Livonian

In my data, prefixes can either mark pure perfectivity or their semantic scope has been extended so that a given verb can be semantically modified by the prefix. In some cases both functions apply. In certain cases, the prefix is exclusively used to form a perfective verb giving the entire sentence a perfective reading. This is particularly characteristic of the prefix *nuo-* ‘of; from’. In general, Finnic languages express aspectual oppositions by means of alternative case markings of direct objects and different types of adverbials. For direct objects, Livonian employs nominative-genitive (in many stem types nominative and genitive are identical in singular, and for all nouns in plural), nominative, genitive, and partitive (Tveite 2004 calls non-partitive cases accusative following the Finnish grammatical tradition). Of these, generally, non-partitive cases are used with perfective meanings, and partitive with imperfective meanings. A considerable matter concerning partitive objects in Livonian is the favoring of partitive case for pronouns, at least personal and demonstrative pronouns (Kont 1963: 103–106; Larsson 1983: 112–113; Sjögren 1861: 241;

Tveite 2004: 38). This is in accordance with the fact that pronouns are known to have a different syntactic behavior compared to other word classes (in Livonian, e.g., pronouns have more inflected forms also in plural than other nouns). Moreover, this naturally increases the frequency and relative proportion of partitive objects in Livonian transitive clauses.

Certain verbal particles are used to express aspectual oppositions in Livonian. There are some examples of these verbal particles combined with prefixed verbs in my data. The most commonly occurring verbal particle is *jarā* ‘off, away’ (also *jara*, *jerā*, *jārā*). Also, *ilzō* ‘up’, *jūrō* ‘to, close’, *kubbō* ‘together’, and *lebbō* ‘through’ appear in my data. (See also de Sivers 1971: 56–60.)

In the following I cover the expression of perfectivity in Livonian by means of verbal prefixes. In example (15), the verb *sīe-dō* (eat-INF) ‘eat’ is inflected without a prefix as *se-i-ti* (eat-PST-3PL) ‘they ate’ and the action is perceived as imperfective, a continuous process. Example (16) shows the same verb *sīedō* with a prefix: *no-sei* (of-eat.PST.3SG) ‘(s)he ate’.

(15) Livonian (Mägiste 2006: 116)

<i>...kuolm</i>	<i>vežžō</i>	<i>tādud</i>	<i>sa-pandōd</i>		
...three	basket.PRT	full.PL	together-put.PPP		
<i>lēba-d-ōks</i>	<i>un</i>	<i>se</i>	<i>vōļ</i>	<i>must-ōd</i>	
bread-PL-INS	and	it	be.PST.3SG	lift-PPP	
<i>min</i>	<i>pā</i>	<i>pāl</i>	<i>ilz</i>	<i>un</i>	<i>līnd-ud</i>
I.GEN	head	onto	up	and	bird-PL
<i>sāl</i>	<i>se-i-ti</i> ,	<i>knāpp-īz-ti</i>	<i>jūs</i> .		
there	eat-PST-3PL	peck-PST-3PL	at		

‘...three baskets (were) filled with bread and it was lifted up above my head and birds ate there, pecked.’

(16) Livonian (PK)

<i>ja</i>	<i>pierrō</i>	<i>ku</i>	<i>kālm-i-stō</i>	<i>tuļ</i>	<i>kuonnō</i>
and	after	when	grave-PL-ELA	come.PST.3SG	at_home
<i>siz</i>	<i>set</i>	<i>ikš</i>	<i>kōrd</i>	<i>no-sei</i>	
then	only	one	time	of-eat.PST.3SG	
<i>un</i>	<i>lekš</i>	<i>jōgā</i>	<i>ikš</i>	<i>eņš</i>	<i>kuonnō</i>
and	go.PST.3SG	each	one	own	at_home

‘and after (they) came home from the graves [graveyard], then (they) ate only once and each one left for their homes’

In examples (17) and (18), the same prefixed verb, *nūo-sīe-dō* (of-eat-_{INF}) ‘eat’, appears three times. In example (17), a perfective interpretation is supported by the verbal particle *jārā* ‘off, away’. In example (18), however, both verbs cannot be interpreted as perfective. The latter has a perfective meaning, implying the time when the process of eating has ended or when the subjects have finished eating. The first is more ambiguous and, in this example, is not clearly recognized as a perfective verb.

(17) Livonian (Mägiste 2006: 120)

no ne āt vōnnō-d sie
 PTCL they be.3PL be.PPP-PL it.NOM-GEN
lēba jārā nūo-sīe-nōd...
 bread.NOM-GEN PTCL of-eat-APP.PL
 ‘They have finished that bread...’

(18) Livonian (Mägiste 2006: 120)

...*laz ānda-g amā-d-ōn nūo-sīe-dō*
 IMP give-IMP.3SG all-PL-DAT of-eat-_{INF}
un ibbiz-t-ōn ka laz ānda-g ainō,
 and horse-PL-DAT also IMP give-IMP.3SG hay.PRT
pan-g jeddō, un ku āt nūo-sīe-nōd,
 put-IMP.3SG in_front and when be.3PL of-eat-APP.PL
siz laz lāk valā-m viļļō kuoŕŕō,
 then IMP go.IMP.3SG pour-_{INF} grain.PRT sack.ILL
amā-d-ōn kuoŕŕ-īd tādüks.
 all-PL-DAT sack-PL full
 ‘...let everyone eat and give even the horses hay,
 put (it) in front of them, and when they have eaten,
 go pour the grain into a sack, fill everyone’s sacks.’

In example (19), the prefix *nūo-* is attached to the verb *kīet-ō* (boil-_{INF}) ‘boil’, whereas in example (20) it combines with the verb *matt-ō* (bury-_{INF}) ‘bury’, forming the perfective verbs *nūo-kīet-ō* (of-boil-_{INF}) : *nūo-kīet-ōd* (of-boil-_{PPP}) ‘boil’ and *nūo-matt-ō* (of-bury-_{INF}) : *nūo-matt-ōd* (of-bury-_{PPP}) ‘bury’. In example (19), the verb *nūo-kīet-ōd* has two direct objects: *kui-di jērni-di* (dry-PRT.PL pea-PRT.PL) ‘dry peas’ in the partitive, because the object is an uncountable plural, and *sigā vōzā* ‘pork’ in the nominative-genitive marking perfectivity. Example (20) does not show a direct object despite the presence of a transitive verb.

(19) Livonian (Mägiste 2006: 40)

pāgiņ *perīmie-n* *vóļ* *iz-brōuv-dōd* *vóļ* *un*
 much householder-DAT be.PST.3SG out-brew-PPP beer and
sīemizō-ks *kui-di* *jērn-idi* *sigā* *vōzā* *pā-kōks* ***nuo-kiett-ōd***.
 eating-INS dry-PRT.PL pea-PRT.PL pig meat head-INS of-boil-PPP

‘The householder had a lot of brewed beer and
 for food dry peas (and) pork boiled with the head.’

(20) Livonian (PK)

bēr-iđi *tīe-b* *emmit* *pierrō* *siedā*
 funeral-PRT.PL make-3SG more after it.PRT
ku *um* ***nuo-matt-ōd***
 when be.3SG of-bury-PPP

‘Funerals were rather held after the burial.’

Comparing example (20) with example (21) below, the unprefix verb *matt-ōd* bury-PPP ‘bury’ appears in the same participle form as the prefixed verb *nuo-matt-ōd* (of-bury-PPP) ‘bury’ in the same context. Nevertheless, the situation depicted in the sentence is perfective with a nominative object *mingi suodāmiez* ‘a soldier’. Thus, it is possible to conclude that the use of a prefixed verb is not obligatory when expressing perfectivity because the perfective meaning can be present also without a prefix. De Sivers (1971: 61) also mentions that a vernacular, which has borrowed different kinds of Latvian elements, has occasionally rejected these prefixes. According to her data, there are cases, in which an unprefix verb is used where it would be possible to have a prefixed verb instead and also vice versa. Furthermore, she adds that sometimes both variants are displayed in the same context or even in the same sentence. This shows that on occasion the prefix only emphasizes or confirms the meaning of the verb in question. Likewise, Arkadiev (2015: 257) mentions Livonian as one of the languages in which both unprefix and prefixed verbs may appear in the same context without a significant difference in their meaning.

(21) Livonian (Mägiste 2006: 62)

...kus *sāl* *mingi* *suodā-miez* *um* ***matt-ōd***.
 where there some war-man be.3SG bury-PPP

‘...where a soldier has been buried there.’

Thus, the prefix *nuo-* often derives perfective verbs, but this is not always the case. In my data, there are also other prefixes, which may be used to derive perfective verbs, at least in certain instances. In examples (22), (23), and (24), the prefix *iz-*, the second most common prefix by frequency in my data, is used to form perfective verbs. In example (22), the prefixed verb *iz-lugg-õ* (out-read-*INF*) : *iz-lugg-õnd* (out-read-*APP.PL*) ‘read’ appears with a direct object *bībõl* ‘Bible’ in nominative-genitive and a verbal particle *lebbõ* ‘through’, thus employing three means to express perfectivity. In example (23), the prefixed verb is *iz-tie-dõ* (out-make-*INF*) ‘do, make’: *iz-te-i* (out-make-*PST.3SG*) ‘(s)he did, made’, and, in example (24), the intransitive verb *iz-dantš-õ* (out-dance-*INF*) ‘dance’: *iz-dantš-õnd* (out-dance-*APP.PL*) ‘(s)he danced’. Also, in example (19), the prefixed verb *iz-brõuv-dõd* (out-brew-*PPP*) ‘(s)he brewed’ has a direct object *võļ* ‘beer’ in nominative-genitive (see also examples 1 and 6).

(22) Livonian (Mägiste 2006: 42)

<i>vanā-miez</i>	<i>kūt-z,</i>	<i>ku</i>	<i>ne</i>	<i>āt</i>	<i>kuolm</i>	<i>nēļa</i>
old-man	say- <i>PST.3SG</i>	that	they	be- <i>3PL</i>	three	four
<i>kõrd</i>	<i>iz-lugg-õnd</i>	<i>bībõl</i>	<i>lebbõ</i>	<i>un</i>	<i>vel</i>	
time- <i>PRT</i>	out-read- <i>APP.PL</i>	Bible	PTCL	and	yet	
<i>tõ-b</i>	<i>ikš-kõrd</i>	<i>lugg-õ</i>	<i>lebbõ.</i>			
want- <i>3SG</i>	one-time	read- <i>INF</i>	PTCL			

‘The old man said that they have read the Bible through three-four times and (they) want to read it once more.’

(23) Livonian (PK)

<i>un</i>	<i>sie</i>	<i>sār-stõ</i>	<i>sīe-stõ</i>	<i>tegīž</i>
and	it- <i>NOM-GEN</i>	leg- <i>ELA</i>	it- <i>ELA</i>	again
<i>iz-te-i</i>	<i>pastāli</i>			
out-make- <i>PST.3SG</i>	pastāl- <i>PRT.PL</i>			

‘And *pastāl*-shoes were made from the (boot) shaft.’

(24) Livonian (Mägiste 2006: 24)

<i>ku</i>	<i>võļtõ</i>	<i>iz-dantš-õnd,</i>	<i>siz</i>	<i>laps-t</i>	<i>kādst</i>
when	be- <i>PST.3PL</i>	out-dance- <i>APP.PL</i>	then	child- <i>PL</i>	POST
<i>īrg-iz-t</i>	<i>kizzõ</i>	<i>põļteri</i>	<i>sõrmõ</i>	<i>kāel-kõks.</i>	
begin- <i>PST-3PL</i>	ask- <i>INF</i>	prayer- <i>PRT.PL</i>	Saaremaa	language- <i>INS</i>	

‘When (they) had danced, then (they) began to ask for prayers from the children in the language of Saaremaa [Estonian].’

The prefixes *nuo-* and *iz-* seem to truly have a perfective function, and they often seem to indicate that the action or process expressed by the verb stem has been accomplished.

In some cases, the prefixes both derive a perfective verb and modify the lexical meaning of the verb, adding to it an additional, adverbial meaning as in Latvian; also the adverbial meaning is often identical with Latvian (see Kiefer & Honti 2003: 138, 147; Suhonen 1972: 219). Still, in many cases in Latvian and Livonian, these lexical meanings of individual verbs are not identical. The prefix *sa-* often adds the Livonian verb adverbial meaning, such as ‘together; multitude’. The verbal particle *kubbõ* ‘together’ often appears in connection with the prefix *sa-*. A large quantity is often emphasized by adding the adverb *pāgiņ* ‘a lot’ to the verb phrase, see example (27). In some cases, the prefix *sa-* ‘together; multitude’ also acts as a perfectivity marker as in (25), (26), and (27). The direct objects in (25) and (26) are in nominative-genitive and nominative respectively, while in (27), the object is not displayed. (See also example (15), in which the prefix *sa-* ‘together; multitude’ in the prefixed verb *sa-pandõd* (together-put.PPP) ‘put’ emphasizes the great amount of bread or the fullness of baskets in addition to perfectivity.)

(25) Livonian (Mägiste 2006: 5)

<i>siz</i>	<i>võļ</i>	<i>sa-tie-dõd</i>	<i>vaļmõks</i>	
then	be.PST.3SG	together-make-PPP	ready	
<i>selliz-t</i>	<i>āina-d:</i>	<i>tīeme</i>	<i>jou-t-kõks</i>	<i>sog-dõd</i>
such-PL	medicine-PL	yeast.GEN	flour-PL-INS	mix-PPP
<i>kubbõ</i>	<i>un</i>	<i>siz</i>	<i>pār</i>	<i>päv-đi</i>
together	and	then	couple	day-PRT.PL
				<i>pid-tõd.</i>
				keep-PPP

‘Then such medicines were made: yeast was mixed with flour and then it was left to stand for a couple of days.’

(26) Livonian (Mägiste 2006: 81)

<i>tämmõ-n</i>	<i>võļ</i>	<i>sa-kērat-õd</i>	<i>āiga-rõntõz</i>
(S)he-DAT	be.PST.3SG	together-write-PPP	time-book
<i>amā-d</i>	<i>nim-īd-õks,</i>	<i>touvõ</i>	<i>tād-õd-õks.</i>
all-PL	name-PL-INS	sky.GEN	star-PL-INS

‘(S)he had a calendar written with all the names, the stars of the sky.’

(27) Livonian (PK)

sūomõ-d jo vòļtõ vāggõ pāgiņ sa-sõt-õnõd
 Finnish-PL already be.PST.3PL very much together-send-APP.PL
 ‘Finnish people had already sent quite a lot (of gifts).’

The prefix *uz-* also has an additional lexical meaning besides expressing perfectivity. The secondary adverbial meaning is ‘on, onto’ as the prefix often appears with the adverb or postposition *pāl*, *pālõ* ‘on, onto’ (see examples 1, 29, and 30). It seems, however, that *uz-* is used to derive perfective verbs only sporadically. Nevertheless, there are some cases such as examples (1), (28), (29), and (30) that are exceptions to the rule. In examples (28) and (30), the direct object is also in the nominative-genitive (*mādlõtõbkiuv* ‘tombstone’, *lõja* ‘boat’), and in example (29), in the nominative (*tēd* ‘star; letter; symbol’), all of these refer to a perfective reading. Also, the verbal particle *ilzõ* ‘up’ appears in example (30). Hence, the prefix *uz-* primarily gives the verb only the adverbial meaning ‘on, onto’ and does not have a clear perfective function.

(28) Livonian (PK)

kālma-d-õn uz-pan mādlõtõb-kiuv
 grave-PL-DAT on-put.PST.3SG memory-stone.NOM-GEN
un ka uz-pan rānda-kīel-kõks
 and also on-put.PST.3SG shore-language-INS
 ‘(s)he placed a tombstone on the graves and
 also wrote in the coastal language [Livonian]’

(29) Livonian (Mägiste 2006: 28)

jegā idõ-n vòļ uz-ummõl-tõd –
 every one-DAT be.PST.3SG on-sew-PPP
mie-d-õn sālga pāl un naiz-t-õn
 man-PL-DAT back.NOM-GEN onto and woman-PL-DAT
rīnda-d pāl – tēd, neikku
 chest-NOM-GEN.PL onto symbol so_that
või-b id-tuoiz-ta tund-õ.
 be.able-3SG one-other-PRT know-INF

‘A symbol had been sewn onto everyone – for men on the back and for women on the chest – so they can recognize each other.’

For the prefixes *ie-* ‘in, into’ and *ap-* ‘around, about’ the main adverbial meanings are ‘in, into’, and ‘around’, respectively. In some cases, the prefixes are used to express perfectivity, as in examples (30), (31), (32), and (33). Again, in examples (30) and (32), direct objects are in nominative-genitive and genitive, respectively (*võrgõ-d* (fishnet-NOM-GEN.PL) ‘fishnets’, *seļļi-z* (such-GEN) ‘such’), while examples (31) and (33) lack objects. The perfective function appears infrequently for these prefixes as well, as is also the case for the prefix *uz-* ‘on; onto, to’.

(30) Livonian (Mägiste 2006: 21)

<i>ie-ētt-iz-õm</i>	<i>võrgõ-d</i>	<i>sūr-õ</i>	<i>mierrõ,</i>
in-throw-PST-1PL	fishnet-NOM-GEN.PL	big-ILL	sea.ILL
<i>pūrit-iz-õm</i>	<i>lõja-ks</i>	<i>aigõ;</i>	<i>ku sa-i-m</i>
sail-PST-1PL	boat-INS	shore.ILL	when get-PST-1PL
<i>aigõ,</i>	<i>uz-vied-īz-õm</i>	<i>lõja</i>	<i>ilzõ</i>
shore.ILL	on-drag-PST-1PL	boat.NOM-GEN	up
<i>rānda</i>	<i>pāl</i>	<i>un</i>	<i>lek-š-õm kuodāi.</i>
shore	onto	and	go-PST-1PL to_home

‘We threw fishnets into the Great Sea [Baltic Sea], sailed the boat to the shore; when we got to the shore, we dragged the boat onto the shore and went home.’

(31) Livonian (PK)

<i>un</i>	<i>sāl</i>	<i>um</i>	<i>ie-pandõd</i>	<i>pū</i>	<i>sizāl</i>
and	there	be.3SG	in-put.PPP	tree	into

‘And there (it) is put into a tree.’

(32) Livonian (PK)

<i>siz</i>	<i>tegiž</i>	<i>jemā</i>	<i>võļ</i>	<i>ap-ēdt-õn</i>	<i>seļļi-z</i>
then	again	mother	be.PST.3SG	around-dress-APP	such-GEN

‘Then again mother has put such (a skirt) on.’

(33) Livonian (PK)

<i>siz</i>	<i>vel</i>	<i>razā-ks</i>	<i>ap-ūd-iz</i>
then	still	grease-INS	around-fry-PST.3SG

‘Then [the turbot (*Scophthalmus maximus*)] was still fried with grease.’

Regarding the use of the less frequent prefixes in my data, their use often corresponds to the use of their Latvian equivalents; for example, the prefix *pie-* ‘by, at’ in *pie-pall-ō* (by-request-INF) ‘worship’, in example (8), and the highly infrequent prefixes *pa-* ‘along, on, in; by; under; slightly’ and *pōr-* ‘over, across’ in *pa-kīer-ō* (along-turn-INF) ‘turn slightly’: *pa-kīer-ōb* (along-turn-3SG) ‘(s)he turns slightly’, in example (34), and *pōr-lā-dō* (over-go-INF) ‘get across; cease, stop’: *pōr-lā-nd* (over-go-PPP) ‘gotten across; ceased, stopped’, in example (35). In example (34), the prefix *pa-* adds the verb the same meaning of ‘slightly, a little’, as in Latvian, and in example (35) the prefix *pōr-* implies the meaning ‘over’ as well as perfectivity (other possible lexical meanings for *pār-* in Latvian are e.g. ‘again’ and ‘wrong’ (LVG: 282–284). In Livonian, these prefixes rarely function as perfective markers, although in Latvian they are used in this function.

(34) Livonian (PK)

<i>siz</i>	<i>lougō</i>	<i>lougō</i>	<i>ju</i>	<i>pa-kīer-ōb</i>	<i>siedā</i>
then	slowly	slowly	PTCL	along-turn-3SG	it.PRT
<i>pū-dō</i>		<i>mis</i>	<i>sāl</i>	<i>sizāl</i>	<i>um</i>
piece_of_wood-PRT		that	there	in	be.3SG

‘Then slowly, slowly one slightly turns that piece of wood which is in there.’

(35) Livonian (Mägiste 2006: 133)

<i>ku</i>	<i>vōļ</i>	<i>pōr-lā-nd</i>	<i>se</i>	<i>laskimi,</i>
when	be.PST.3SG	over-go-PPP	it	shooting
<i>siz</i>	<i>mēg</i>	<i>īe-krōm-iz-mō</i>	<i>vīļa</i>	<i>vaguonōz,</i>
then	we	in-crawl-PST-1PL	property	car
<i>amā</i>	<i>vīļa-ks</i>	<i>un</i>	<i>brouš-iz-mō</i>	
all	property-INS	and	travel-PST-1PL	
<i>bōņō-ks</i>	<i>sie</i>	<i>tul</i>	<i>mierrō-n</i>	<i>piddiz.</i>
train-INS	it.GEN	fire	sea-DAT	along

‘When the shooting had ended, then we crawled into the freight car, with all the wares, and traveled with the train along that sea of fire.’

As stated above, in Livonian, as in the Finnic languages generally, direct objects are marked with nominative, genitive, and partitive. Livonian exhibits extensive case syncretism between the nominative and genitive in many inflectional types, in the singular and systematically

in the plural (Grünthal 2007: 408, 414; 2010: 101, 104–106; Kettunen 1938: XXXVIII–XLI, LIV–LVII). Usually, it is only possible to specify the case of the object as non-partitive. In Finnic languages, the distribution of non-partitive cases of direct objects varies depending on the language in question, but in negative sentences the direct object is typically in the partitive. In Livonian, however, also non-partitive objects in negative sentences are possible in certain conditions (see Kont 1963; Larsson 1983; Sjögren 1861: 238–257; Tveite 2004). According to Tveite (2004: 147, 150), these objects are exceptions, and my data, though quite sparse, support his perception. In his comprehensive data with nearly 7 000 sentences, there are only 635 negative sentences, of which 63 have a non-partitive object. In other respects, Tveite (2004) only touches on negation in his study of the Livonian object.

Affirmative predicates are also over-represented in my data, since there are only 24 examples with negative predicates in the total of 461 examples of verbal prefixes. Prefixes occur in connection with both intransitive and transitive negative verbs. In this study, negative transitive verbs with a displayed direct object are of interest. They compose approximately half of the negative examples of my data. In two examples, the object is a noun, in one example, it is a noun phrase with a pronoun and noun, and in the remaining examples, the object is a pronoun. No non-partitive objects in negative sentences appear in my data. For the sake of comparison, in example (36), the prefixed verb *nuo-matt-õd* (of-bury-PPP) ‘buried’ occurs in a negative sentence. In example (37), the prefixed verb *nuo-tie-mõ* (of-make-INF) ‘do, make’ occurs with the pronominal object *siedā* (it.PRT) ‘it’; see also example (6) with the partitive object *taisnip-t* (truth-PRT) ‘truth’.

(36) Livonian (PK)

<i>agā</i>	<i>jedmõl</i>	<i>kui</i>	<i>iz</i>	<i>ūo</i>	<i>nuo-matt-õd</i>
but	before	when	NEG.PST	be.CNG	of-bury-PPP
<i>siz</i>	<i>nut-īz</i>	<i>pa</i>	<i>tõppiņõ-ks.</i>		
then	call-PST.3SG	INS	diluted_beer-INS		

‘But before the burial, it was called diluted beer.’

(37) Livonian (Mägiste 2006: 135)

<i>agā</i>	<i>siedā</i>	<i>iz</i>	<i>sō</i>	<i>nuo-tie-mō</i> ,
but	it.PRT	NEG.PST	get.CNG	of-make-INF
<i>vōļ</i>	<i>lē-mōst</i>	<i>nāntō-n</i>	<i>uldzō</i> ,	
be.PST.3SG	go-INF	they-DAT.PL	out	
<i>saksā</i>	<i>tuļ</i>	<i>sillō</i> .		
German	come.PST.3SG	in		

‘But it cannot be done, they had to go [out],
the Germans came in [to Latvia].’

Thus, the verbal prefix does not seem to affect the choice of the case of the direct object in negative sentences, but the choice is based more likely on the negation itself and the specific conditions mentioned by Tveite (2004).

6. Conclusions

Verbal prefixation in Livonian is a phenomenon that occurs lexically, with eleven Latvian-origin prefixes, and also grammatically, as at least some of the borrowed prefixes have grammatical functions as well. Morphological elements, i.e., the verbal prefixes, can be borrowed as a lexical element, either by themselves or as a combination with a verb. Functional features, that is, aspectual functions and possible simultaneous adverbial meanings have been borrowed in addition to lexical elements, applying especially to the prefixes *nuo-* ‘of; from’ and *iz-* ‘out’, and to some extent also to the prefix *sa-* ‘together; multitude’, and to a lesser extent to the prefixes *uz-* ‘on; onto, to’, *ie-* ‘in, into’, and *ap-* ‘around, about’.

Differences in the frequency of occurrence of the different prefixes represent interesting findings. According to my data, it seems that the most frequent prefixes are used as perfectivity markers in Livonian. The most frequent prefix, *nuo-* ‘of; from’ especially can be considered not only a lexical element but also functioning as a perfectivity marker. This probably results from the high frequency of the prefix. It might even be considered as a default perfectivizing prefix in Livonian (see also Wälchli 2001: 418). Also, it seems to be developing a use divergent from the Latvian use of the equivalent prefix *no-* (see

Suhonen 1972: 220, 1985: 115–116; de Sivers 1971). In addition, the prefixes *iz-* ‘out’ and *sa-* ‘together; multitude’, and more or less also *uz-* ‘on; onto, to’, *ie-* ‘in, into’, and *ap-* ‘around, about’, can be used to derive perfective verbs. Although, in addition to their perfective function, these prefixes also are used to express certain lexical meanings, except for the prefix *iz-* ‘out’. These lexical meanings are: *sa-* ‘together; multitude’, *uz-* ‘on; onto, to’, *ie-* ‘in, into’, and *ap-* ‘around, about’. These prefixes seem to form an exception to Wälchli’s (2001: 418–419) observation that the use of verbal prefixes does not have a significant influence on the sentence on a semantic level. Although, none of these prefixes derives a perfective verb in every case where it occurs with a verb. Also, in most cases, the use of verbal prefixes generally corresponds with the Latvian use of an equivalent prefix, and the Livonian prefixed verbs often have Latvian equivalents both in form and meaning (de Sivers 1971; Suhonen 1972: 219, 1985: 113). De Sivers (1971: 80) remarks, however, that Livonian prefixed verbs are gradually separating from the Latvian model because there are also some instances where they do not correspond formally or semantically to Latvian prefixed verbs. My data also point to that development, concerning especially the prefix *nuo-* ‘of; from’. Concerning the lexical meanings, the corresponding use is evident especially in the case of the rarely used prefixes. However, these prefixes typically do not have a perfective use in Livonian, though it might be possible to distinguish it in some situations, for example, with verbs of motion. Usually, these prefixes only change or modify the lexical meaning of the verb. This applies especially to the prefixes *aiz-* ‘behind’, *at-* ‘away; back’, *pa-* ‘along, on, in; by; under; slightly’, *pie-* ‘by, at’, and *põr-* ‘over, across’. This also differentiates the use of these infrequent prefixes in Livonian from the Latvian use of the equivalent prefixes, because in Latvian these prefixes are used as perfectivity markers. It seems that the frequency of the prefix correlates with its aspectual, perfective function in Livonian. In other words, the more frequent the prefix, the more probable it is that it has an aspectual function.

In Livonian, prefixed verbs, and hence the sentences in which they occur, are not necessarily perfective. Instead, the prefix often gives the verb an adverbial, modifying, or emphasizing meaning. Thus, one cannot say that verbal prefixation has fully developed to

express perfectivity in Livonian, or that grammatical aspect is found in Livonian (see also Arkadiev 2017). Also, the use of the verbal prefixes in Livonian does not appear systematically, since they are not obligatory when expressing aspectual oppositions. Unprefixed verbs may perfectly well occur in perfective contexts. My data support Arkadiev's (2015: 290) perception that a recipient language does not adopt the system of a donor language completely, even when the language contact in question has been long-standing and intensive. Still, as mentioned above, some of the Latvian-origin verbal prefixes (*nuo-* 'of; from', *iz-* 'out', *sa-* 'together; multitude', *uz-* 'on; onto, to', *ie-* 'in, into', *ap-* 'around, about') are used to derive perfective verbs in Livonian in at least some instances. Therefore, a secondary strategy has emerged to express perfectivity in Livonian, which often is used in conjunction with the inherent Finnic way of doing so, which uses alternative case marking of direct objects and verbal particles. And, naturally, the perfective use of these prefixes in Livonian does not in any way approach the extent of their use in Latvian where they originate.

Abbreviations

1	first person	INS	instrumental
2	second person	NEG	negation
3	third person	NOM	nominative
ACC	accusative	NOM-GEN	nominative-genitive
ADE	adessive	PA	active participle
ALL	allative	PK	Initials for a Livonian language consultant
APP	active past participle		
CNG	connegative	PL	plural
COND	conditional	POST	postposition
DAT	dative	PPP	passive past participle
ELA	elative	PRT	partitive
GEN	genitive	PST	past
ILL	illative	PTCL	particle
IMP	imperative	PVB	preverb
INE	inessive	RFL	reflexive
INF	infinitive	SG	singular

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Latvialaisperäisten verbiprefiksien syntaktiset ja aspektuaaliset funktiot liivissä

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Tutkimuksen kohteena olevaa Kuurinmaan liiviä luonnehtii pitkäaikainen kontakti latvian kanssa sekä sen puhujien laaja kaksikielisyys. Näiden seurauksena latvian vaikutus liiviin on ollut voimakasta sekä sanaston että kieliopin osalta. Esimerkki tästä vaikutuksesta ovat yksitoista latviasta lainattua verbiprefiksiä: *aiz-*, *ap-*, *at-*, *ie-*, *iz-*, *nuo-*, *pa-*, *pie-*, *põr-*, *sa-* ja *uz-*. Nämä prefiksit voivat esiintyä liivissä sekä omaperäisten että latviasta lainattujen verbien kanssa.

Tutkimuksen aineisto on koottu aiemmin julkaisemattomista liivin nauhoituksista sekä julkaistuista kielennäytteistä (Mägiste 2006). Eri prefiksien määrät vaihtelevat aineistossa (461 esimerkkilausesta) huomattavasti: yleisin prefiksi on *nuo-*, noin 29 % kaikista prefiksien esiintymistä, kun taas aineiston harvinaisimmista prefikseistä esiintymiä on vain muutama (*pa-* 6 kpl, *põr-* 5 kpl). Aineiston perusteella prefiksin yleisyys näyttää olevan yhteydessä sen käyttöön perfektiivisyyden ilmaisemisessa: mitä yleisempi prefiksi on, sitä todennäköisempää on, että sitä voidaan käyttää ilmaisemaan myös aspektuaalisia funktioita.

Verbiprefiksit esiintyvät liivissä sekä leksikossa että osana morfologiaa. Funktionaalisia ominaisuuksia on lainattu leksikaalisen elementin, itse prefiksin, lisäksi. Aineiston perusteella voidaan sanoa, että eräitä latviasta lainattuja verbiprefiksejä voidaan käyttää muodostamaan perfektiivisiä verbejä ja ilmaisemaan perfektiivisyyttä liivissä. Erityisesti prefiksiä *nuo-* käytetään tässä funktiossa. Myös prefiksejä *iz-*, *sa-*, *uz-*, *ie-* ja *ap-* (taajuusjärjestyksessä) voidaan käyttää perfektiivisyyden ilmaisemisessa. Nämä prefiksit, lukuun ottamatta prefiksiä *iz-*, antavat lisäksi verbille myös adverbiaalisen lisämerkityksen: *sa-* 'yhdessä; paljon', *uz-* 'päällä, päälle', *ie-* 'sisällä, sisään' ja *ap-* 'ympäri'. Muita prefiksejä (*aiz-*, *at-*, *pa-*, *pie-*, *põr-*) ei tavallisesti käytetä ilmaisemaan perfektiivisyyttä. Joissakin tapauksissa sekin tosin on mahdollista, esimerkiksi liikeverbien yhteydessä. Yleisesti verbiprefiksien käyttö liivissä näyttää vastaavan latvian vastaavien prefiksien käyttöä. Tästä on poikkeuksena prefiksin *nuo-* käyttö, joka on

kehittymässä latvian vastineen *no-* käytöstä eroavaksi. Prefiksiverbi ei liivissä kuitenkaan aina ole perfektiivinen. Lisäksi prefiksittömät verbitkin voivat esiintyä perfektiivisissä yhteyksissä. Prefiksin käyttö ei siis ole pakollista perfektiivisyyttä ilmaistaessa.

Voidaan siis todeta, ettei verbiprefiksaatio ole liivissä täysin kehittynyt ilmaisemaan perfektiivisyyttä eikä prefiksien esiintyminen ole systemaattista. Verbiprefiksit tarjoavat kuitenkin perfektiivisyyden ilmaisemiseen uuden keinon alkuperäisten itämerensuomalaisten ilmaisukeinojen, objektin sijanvaihtelun ja verbipartikkeleiden, rinnalle.