COMPOUND FORMATION PRINCIPLES IN LIVONIAN

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Abstract. Compounding is one of the most productive types of Livonian word formation. Compounds typically are synthetic and contain one or more modifiers, which follow the head of the compound. Most compound nouns have a singular genitive modifier. Livonian also has an important sub-group of compound nouns and adjectives, which has preserved the historical singular genitive ending *-n in modifiers. On rare occasions, the modifier can also be nominative. In such compounds, the modifier partially agrees in case with the head. An important group of Livonian compound nouns, created on the Latvian model, has declinable active present participles as modifiers. The Livonian system of compounds, just like Livonian itself, generally follows traditional Finnic compound word formation principles, but also has characteristics of compound formation typical of Latvian. Understanding the Livonian system of compounds was greatly helped by use of the Livonian written language corpus.

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1. Introduction

Certain aspects of Livonian are rather well researched; however, there are some areas, which have not yet been the focus of comprehensive studies. There also exist studies, which must be redone or expanded using a larger amount of materials and newer data.

One such area is compound formation. This part of grammar, which is connected more to word formation, syntax and also orthography, hides noteworthy features. These features are important in the historical development of the Livonian language but also from the standpoint of current morphological structure.

Livonian compound formation principles are most thoroughly described for the first time in A. J. Sjögren's and F. J. Wiedemann's Livonian grammar in 1861 (SjWa: 40–45). The Livonian literary language tradition has continued to develop since that time and Livonian

itself has gone through new developments. I have partially described present-day compound formation in Livonian within the context of it being one possibility for word formation as a means for expanding the Livonian lexicon in my previous articles (Ernštreits 2016, 2018). The aim of the current article is to provide an overview of the types of Livonian compounds, their morphological features, and the problems which exist in presenting their morphology.

The need for a more complete understanding and better description of compound words was a major contributor to the Livonian lexical database (LLDB) completed in 2016 on the basis of the Livonian-Estonian-Latvian Dictionary (LELD). In addition, a morphological database (LMDB) was created for easier language learning and collection of morphological data. The materials in these data showed that a majority of noun compounds clearly require a special interpretation in connection with the declension in the modifiers and also with respect to the corresponding declension principles, which are unclear.

In Estonian (Kasik 2015: 93–100) and Latvian (Vulāne 2013: 249–252) linguistic tradition, compounds, their classification and other related theoretical aspects are generally dealt with similarly. However, the tradition of defining the compound is somewhat different. In Latvian, compounds are considered semantically as well as syntactically linked words (Vulāne 2013: 249). In Estonian, in addition to synthetic compounds corresponding to those in Latvian, there are also stem compounds, in which there is a semantic correlation only between the parts involved in word formation (Kasik 2015: 93) and which often have a nominative modifier. One goal of the current study is to determine how Livonian compound formation relates to its two contact languages.

The present paper focuses primarily on describing the compound formation principles originating from the morphological properties of the compounds. The compounds are grouped according to their head and modifier as well as the inflected forms used in their formation, while also, for the first time, detailing which are the statistically most popular methods for compound formation.

The current paper is an empirical descriptive study of Livonian, for which the corpus of written Livonian (CWL) is the main source. The CWL consists of data from the LLDB as well as various other written language sources (ČDG, ŪT, Stalte 2011, etc.). Compounds were also studied in two closely connected languages: in Latvian, as the primary source of contacts for Livonian, and in Estonian, which provides an understanding of traditional Finnic word formation principles and also is a source for newer language and culture contacts.

Boundaries within compounds are marked as they are in LELD and LLDB. Boundaries between components are marked with | and the declinable portion of the compound is marked with ||.

2. Compound formation

Compound formation is one of the most productive types of word formation in Livonian. Approximately one-quarter of the entries in LELD are compounds. Compounds also have an important role in the creation of new words, especially translated loanwords, which Latvian for bilingual Livonian language speakers is the most comfortable to use as a model or Estonian, as a second important source, for terms relating to culture.

Compared to Latvian, one can observe a noticeably wider use of compounds in Livonian. Depending on the source or materials, Livonian also uses compounds where a simple word combination is sufficient in Latvian (rōda|na'ggõl 'iron nail o raudnael o dzelzs nagla'; filts|sōpkõd 'felt boots • viltsaapad • filca zābaki'). This could also just be recent influence on the Livonian orthography by the Estonian orthographic practice for writing stem compounds, especially in the context of the merging of the nominative and genitive cases in Livonian. Modifiers are semantically in the genitive, which can be seen in compounds where a component distinguishes nominative and genitive forms (mie'd|kastūg 'honeydew [honey.GEN + sauce] • mesikaste • medus rasa' and not $me'\check{z}|kast\bar{u}g$ [honey.NOM + sauce]; $k\ddot{a}'d|ki'v$ 'quern, (hand-)mill [hand. GEN + stone] • käsikivi • rokas dzirnavas, dzirnas' and not ke'ž|kiv [hand.NOM + stone]).

Generally, compounds are formed from two components, but compounds consisting of three or more components are also possible (võ'l|jūomn|āiga 'magic potion [lit. wizard's drink] • nõiajook • burvju dzēriens'; pivā|kuodā|kīela 'church bell | kirikukell | baznīcas zvans'; kō'd|tuoistõn|suorm|sūol 'duodenum • kaksteistsõrmiksool • divpadsmitpirkstu zarna'; si'zzõl|tu'lmiz|ovāt 'income source - tuluallikas - ienākumu avots'; sied|aig|sōņō 'until this time - seniajani • līdz šim laikam'; tagā|mūn|āigast 'the year before last • tunamullu • aizpērn'; i'l|sīlmad-il|pād'in a hurried frantic way, head over heels • ülepeakaela • pa galvu, pa kaklu')

The majority of compounds in Livonian are subordinate compounds. Coordinate compounds are less represented and their features in this article are discussed along with their respective compound type.

Subordinate compounds are composed of one or more modifiers, which are followed by the head. The only exception is the modifier $-\bar{\iota}$ 'self, own \circ sama-, -pat', which likely arose as a result of Latvian and Estonian influence. This modifier occurs at the end of the compound primarily in compound adverbs $(s\bar{a}$ ' $|\bar{\iota}|$ 'z' 'right there \circ sealsamas \circ turpat'), but also in pronouns $(se||\bar{\iota}|$ 'z' 'the same one \circ seesama \circ tas pats') and adjectives $(se||\bar{\iota}||\bar{\iota}|$ 'z' 'of the same type \circ samasugune \circ tāds pats') in some written sources.

2.1. Compound nouns

The majority of compounds in Livonian are compound nouns. As compound nouns are primarily formed from declinable components and are declinable themselves, morphology plays and important role in selecting the inflected form of the modifier for constructing the compound as well as in preserving certain archaic forms in modifiers. Likewise, the unique features of the declension of compound nouns themselves is important from the perspective of morphology.

This latter aspect has posed a significant problem for presenting compound nouns in lexicographic sources. There are many compounds in Livonian in which not only the head, but also the modifier, is declined. In earlier lexicographic sources this problem is mostly ignored in discussions of morphology. Such words are presented as word combinations (SJWb) or illustrated with only some isolated, exceptional basic forms (LW).

LELD is the first lexicographic publication, which attempts to present the declension principles of such compounds. A special compound boundary symbol (||) is used in these instances. Also, the number of the declension type is given only for the head of the compound (alli||serk *94 'undershirt alussärk apakškrekls'). In the place-name index in the same source, the declension type is also given for the modifier (Piški||Salāts **194||*140); however, this reference makes the user assume that the head and modifier are both declined throughout the entire paradigm. Examining the materials, it becomes clear that in this type of compound, the modifier is declined only partially and to varying extents depending on the compound group. Therefore, the system

used by LELD does not offer an adequate solution for the problem of showing compound nouns with declinable modifiers.

A further difficulty is presented by the absence of detailed studies of the morphology of these words, which would clarify the extent to which modifiers are declined. Researching this topic is complicated not only by the specifics of this topic, but also by the small amount of Livonian morphological data and the rarity of compound nouns in which the modifiers are declined. This would also be the case even if the amount of data for describing the morphology of these compounds were sufficient. In the following sections, the morphology of compound nouns is presented with their analogous forms, which are taken from the Livonian language corpus. These are used to present a summary of the morphological principles of Livonian compound nouns and also the unique features of modifier declension within compounds.

2.1.1. Declension of compound nouns

In compound noun declension, the modifier maintains its form and only the head component is declined. However, occasionally a modifier in the nominative can be declined for part of the paradigm. In compounds consisting of three or more components, only the modifier immediately preceding the head component is declined.

Declinable modifiers in the nominative generally agree with the head component in the singular nominative, genitive, partitive, illative, inessive, elative, and, when encountered, the abessive. However, these modifiers remain in the genitive for head components in the dative and instrumental (i.e., corresponding to the general principles of noun case agreement). For plural forms, modifiers remain in the plural genitive, which does not differ in its form from the plural nominative. The same principles apply to all compound nouns formed with the modifier -ī'ž 'self, own o sama- o -pat'. i-final modifiers (sindi 'birth o sünni-• dzimtā'; e'ddi- 'front, fore- • esi- • priekš-') remain in the genitive singular also for all singular locative cases.

Nominal modifiers in the nominative and nominative modifiers in compound numerals agree with the head in the singular nominative, genitive, and partitive, but remain in the genitive singular for all other singular and all plural noun cases.

2.1.2. Compound nouns and adjectives with genitive modifiers

Modifiers in compound nouns and adjectives are generally in the genitive singular ($jel\bar{a}miz|ki'bdj$) if the bitterness of life elukibedus, eluraskus dzīves rūgtums; $k\ddot{a}'d|r\bar{q}'$ retainer, deposit käsiraha rokasnauda; $ma'gdjz|v\bar{t}t'$ sweetish magusavõitu pasalds; $m\ddot{a}'d|su'glimi'$ like us meiesugune līdzīgs mums). The genitive is generally used in a way, which is semantically similar to Latvian compounds, and the development of this system in Livonian has likely been aided by the merging of nominative and genitive forms, which are the same for most Livonian nouns.

In compounds containing two nouns, in which the modifier refers semantically to the purpose of the noun, the compounds are likely formed on the model of Latvian compounds. The modifier in these compounds is usually in the plural genitive (ainad ang 'pitchfork • heinahang • siena dakšas'; na'ggõrd|kuot 'potato sack • kartulikott • kartupelu maiss'; kanād taļ 'hen house • kanakuut • vistu kūts'; kindod|por 'pair of mittens [lit. mittens' pair] • kindapaar • cimdu pāris'; dattõld|palm 'date palm [lit. dates' palm] - datlipalm datelpalma'; piṇīd|bo'ugõ 'dog house [lit. dogs' shack] • koerakuut • sunubūda'; sūold|te'b 'intestinal disease o soolehaigus o zarnu slimība'; lī'ed|pūd|pīsk 'deciduous tree resin • lehtpuuvaik • lapu koku sveki; lūomod|tal 'livestock barn o loomalaut o lopu kūts'; motkod|va'itoks 'discussion • mõttevahetus • domu apmaina'; arōnijd | līem 'chokeberry juice • arooniamahl • aroniju sula'; ma'gdiz|kiršõd|pū 'sweet cherry tree • maguskirsipuu • saldo ķiršu koks'). Modifiers in the genitive singular are also possible and can exist alongside compound nouns with the same meaning using the plural genitive (kanā|kuļ ~ kanād|kuļ 'chicken hawk • kanakull • vistu vanags'; jelāj|vozā ~ sūr|jelāj|vozā 'beef [lit. (large) animal meat] • loomaliha • liellopu gaļa'; jelāj|vagōn 'cattle car • loomavagun • lopu vagons'; jelājd|bīetõz 'beet used for animal feed • loomapeet • lopbarības biete').

There is an important group of compound nouns and adjectives in Livonian, which have preserved the historical genitive ending *-n in the modifier. Two subgroups can be differentiated. The first of these consists of old fossilised compound nouns ($s\bar{\imath}emn|\bar{a}iga$ 'food, provisions • toit • ēdiens, pārtika'; $j\bar{u}omn|\bar{a}iga$ 'drink, beverage • jook • dzēriens, dzeramais', $sit\bar{a}n|ouk$ 'anus • pärak • tūplis', $m\bar{o}n|viz\bar{a}ntimi$ 'serfdom • pärismaisus • dzimtbūšana'). The second group consists of compounds containing nouns specifying location: $-aig\bar{a}$ 'edge' ($j\bar{o}ran|aig\bar{a}$ 'lakeshore • järveäär • ezermala', $jo'ugn|aig\bar{a}$ 'riv-

erside • jõeäär • upes mala', koun | aigā 'edge of a well • kaevuäär • akas mala'; konkan aigā 'edge of dunes o luite äär o kapas mala', mä'gn|aigā 'slope, hillside o mäe nõlv o nogāze, piekalne', mie 'rn|aigā 'seashore • mere äär • jūrmala', mõtsān aigā 'edge of a forest • metsaäär • mežmala', rāndan | aigā 'beach • rannaäär • piekraste, pludmale', tu'ln|aigā 'edge of a fire • tule äär • uguns mala, ugunskura mala'); -aigi 'of an edge • äärne, ääre- • malas- '(mie'rn|a'igi 'of a seashore • mereäärne • piejūras-, jūrmalas-'); -alā 'underside • -alune • apakša' (*mōn*|*alā* 'underworld • manala • pazeme, velu valstība'); -*a'lli* 'under, a place underneath • -alune • apakša, apakš-' (pān | a'lli 'pillow, head of the bed peaalune pagalvis, pūolan a'lli hollow of one's knee põlvealune • pacele', ulān | a'lli 'shed, awning, lean-to • varikatus • nojume', $m\bar{o}n|a'lli'$ underground maalune apakšzemes-; $\bar{a}itan|a'lli'$ 'space under a granary • aidaalune • klētsapakša, paklēts', kūondan a'lli 'something to be scorned • tuhvlialune • pamesls', labān | a'lli 'sole [of a foot] • labaalune • pēdas apakša', lodan a'lli 'space under a table • lauaalune • pagalde', lovān a'lli 'space under a bed • voodialune • pagulte'); -e'ddi 'front [side] - -esine - priekša' (āitan | e'ddi 'porch of a granary • aidaesine • klēts lievenis'; tubān | e'ddi 'entrance hall, anteroom, lobby • esik • priekšnams'); -pēli 'top [side] • -pealne • virsa, augša' (tubān | pēļi 'attic o toapealne o istabaugša, bēniņi').

The historical genitive was maintained in the compound nouns and adjectives of this subgroup apparently as a result of the final vowel of the modifier occurring next to the initial vowel of the head, but otherwise the historical genitive ending *-n has generally been lost ($k\bar{o}nka$ $+ aig\bar{a}$, $\bar{a}ita + e'ddi$). The same process has occurred in modern consonant-final stems ($mie'r + aig\bar{a} < *mierr\tilde{o} \sim *mierr\tilde{o}n + aig\bar{a}; m\ddot{a}'g +$ $aig\bar{a} < *m\ddot{a}gg\tilde{o} \sim *m\ddot{a}gg\tilde{o}n + aig\bar{a}$). The modifier -pēli has apparently developed analogically based on the model of -e'ddi and -a'lli.

2.1.3. Compound nouns and adjectives with nominative modifiers

On rare occasions, the modifier can be in the nominative. The most common compound nouns of this type are those, which have a concrete adjective as their modifier. The components of such compounds come together to form a new term with an independent meaning (pivā||kuodā 'church • kirik • baznīca', *mustā*||pīlgõz 'chokeberry • aroonia • aronija' sindi||korand 'birth home o sünnitalu o dzimta seta'; piva|pava 'Sunday pühapäev svētdiena').

The nominative case is generally used for compound nouns when the modifier is an *i*-final adjective referring to location: a'lli- ('the one underneath • alumine, alus- • apakšējais'; a'lli||serk 'undershirt • alussärk • apakškrekls), e'ddi- ('the one in front • eesmine, esi- priekšējais'; e'ddi||tubā 'entrance hall, anteroom, lobby esik e priekšistaba'), i'lli- ('the high one " ülemine, üli- " augšējais, augstākais'; i'lli||skūol 'university = ülikool = augstskola, universitāte'), kilgi- ('the one on the side • külg- • sānu-; kilgi||riek 'detour [lit. side road] • kõrvaltee • apkārtcelš'), *pēli-* ('the top one • pealmine, pealis- • virsējais'; pēli||ke'ž 'upper hand, advantage pealiskäsi virsroka'), ta'ggi- ('the one behind, the back one • tagune, taga- • aizmugures-'; ta'ggi||tutkām 'backside, rear end, posterior pära, tagaots, tagumik, taguots dibens, pakalgals, sēžamvieta'), **u'lli-** ('the outer one o väline, välis- o ārējais'; ulli||sāina 'exterior wall o välissein o ārsiena'), va'ili- ('the one in between vaheline, vahe- starpā esošais'; va'ili||sāina 'partition [lit. between wall] • vahesein • starpsiena').

As described above, compound nouns with adjective modifiers have significant semantic parallels with the use of adjectives with definite endings in Latvian, which are a motivation for corresponding Livonian compound nouns ($must\bar{a}||p\bar{\imath}lg\tilde{o}z$ 'chokeberry [lit. black rowan-tree] aroonia [must pihlakas] amelnais $p\bar{\imath}l\bar{a}dzis$; $sindi||k\bar{\varrho}rand$ 'birth home sünnitalu dzimtā sēta'). Likewise, when Latvian compound nouns are replaced with their motivating word groups, the adjectives in the corresponding groups have definite endings (a'lli||serk-cf.||tapakškrekls>apakšejais krekls 'under shirt alumine särk'; ulli||saina-ltarsiena>arejā siena 'outer wall väline sein'; piva||kuoda-svetnams>svetais nams 'holy building püha koda', etc.).

Therefore, while these compound nouns correspond to Estonian stem compounds in terms of form, their use of the nominative results from their formation as compounds based on phrases whose semantics were borrowed from Latvian. Thus, these are synthetic compounds, which are formed according to the Estonian tradition (Kasik 2015: 93). This also explains why the modifier often agrees in case with the head. Both parts of the compound can be declined in compound nouns with the modifiers a'lli-, e'ddi-, i'lli-, kilgi-, pēli-, ta'ggi-, u'lli- and va'ili-. This is supported by the modifiers a'lli-, e'ddi-, i'lli-, ta'ggi- and u'lli-, which undergo gradation and therefore have unique genitive forms. The same system of modifier declension extends to the functionally similar, though non-gradational, modifiers kilgi-, pēli-, and va'ili. However,

within these compound noun groups there is also considerable movement towards use of the genitive, as, in addition to these compounds. there are compound nouns with genitive modifiers, which either have the same structure or have been similarly simplified (alīz|ki'v 'cornerstone • aluskivi • pamatakmens', alīz|kēra 'signature • allkiri • paraksts').

On very rare occasions, there are also nominative noun (rāngaz|varž 'bridle • lõõg, ohelik • pavada'), numeral (pūol||īe 'midnight • kesköö, südaöö \circ pusnakts'), and pronoun $se||\bar{a}iga|$ 'of that time \circ selle aja \circ tālaika-') modifiers.

As previously stated, modifiers in the nominative generally agree in case with the head, but noun and numeral modifiers remain in the singular genitive for plural cases. Also, adjective modifiers in the nominative do not agree with the head at all in many fossilised compounds (pivā|pāva 'Sunday | pühapäey | svētdiena' : pivā|pāvan 'on Sunday | pühapäeval • svētdienā'). In addition, as is described below, modifiers in the nominative formed from declinable active present participles also do not agree with the head.

The absence of declension in some compound noun groups can be considered the influence of Estonian stem compounds in rather old words (rāngaz|varž NSg 'bridle o lõõg, ohelik o pavada' ~ LW also rangõ|varž GSg) as well as in new translated borrowings (ke'ž|kēra 'handwriting, manuscript • käsikiri • rokraksts, manuskripts' ~ käd|kēra 'handwriting • käekiri • rokraksts').

2.1.4. Other compound nouns and adjectives

The compound noun and adjective modifiers in expressions, which have arisen as a result of compounding can also be in other noun cases (vīerda|joutom [PSg] 'anaemia • aneemia, verevaesus • anēmija, mazasinība'; pie'rrõ|suodā|āigali 'post-war (adj.) • pärastsõjaaegne • pēckara laika-'; sõnāst|sõ'nni [ElSg] 'literal • sõnasõnaline • burtisks'; sūrdõ|vīţi [PSg] 'excellent • suurepärane • lielisks'; skūols|oppiji [InSg] 'pupil • kooliõpilane • skolēns').

Among these compounds one encounters a small group of compound nouns, which was likely constructed according to an older model and may have preserved the inessive ending *-s $(\bar{\delta}'d\tilde{o}gs|p\bar{u}oli')$ late afternoon • õhtupoolik • vakarpuse'; *võidags|lēba* 'open sandwich • võileib • sviestmaize'; võidags päkā 'slippery jack (Suillus luteus) • võitatik • sviesta beka'). The same inessive or illative ending can be encountered in various more archaic compound nouns ($um\bar{a}rz|p\bar{u}$ 'apple tree ° õunapuu ° ābele', i'l| $d\bar{z}\bar{e}mda$ 'cream ° (piima)koor ° krējums' and compound adverbs ($tag\bar{a}rs|p\bar{e}$ ' $d\tilde{o}n \sim tag\bar{a}rs|p\bar{e}\eta \sim dag\bar{a}r\bar{z}|p\bar{e}$ ' $d\tilde{o}n$ 'the wrong way around ° tagurpidi ° otrādi, ačgārni').

There also exists a small group of compound nouns and adjectives constructed from indeclinable expressions $(al\bar{a}|u'n|j\ddot{a}ra$ 'forget-menot • meelespea, lõosilm • neaizmirstule'; $pie'rr\tilde{o}|suod\bar{a}$ 'post-war • sõjajärgne • pēckara'; $k\bar{u}lda|karr\tilde{o}$ 'gold-coloured • kullakarva • zelta krāsā'; $v\bar{\delta}r\tilde{o}|m\bar{\phi}$ 'of foreign origin • võõramaa • svešzemju-').

2.1.5. Compound place names

Just as in compound nouns and compound adjectives, the modifier in compound place names is typically also in the genitive $(P\tilde{o}dr\tilde{o}|m\ddot{a}'g$ 'Põdrõmäg Hill [lit. deer hill] • Põdrõmäg'i mägi • Briežkalns'). The exception is compound place names with adjective modifiers in the nominative $(Piški||sal\bar{a}ts$ 'Piškisalāts [lit. little Salaca] • Väike-Salatsi • Mazsalaca'; $\bar{U}\tilde{z}||gr\bar{o}v$ ' $\bar{U}\tilde{z}gr\bar{o}v$ ditch [lit. new ditch] • $\bar{U}\tilde{z}gr\bar{o}v$ i kraav • Jaunais grāvis'; $\bar{U}\tilde{z}||kil\bar{a}$ ' $\bar{U}\tilde{z}kil\bar{a}$ [lit. new village] • $\bar{U}\tilde{z}kil\bar{a}$ • Jaunciems'), in which the modifier agrees with the head.

2.1.6. Compound numerals

There are few compound numerals in Livonian, though they are well-represented in the basic vocabulary. Their formation and declension principles are even more unique than that of compound nouns and adjectives.

Compound cardinal numerals are constructed in Livonian using the head components $-kimd\tilde{o}$ '-ty (multiples of ten) • kümmend • desmits' $(kak\check{s}||kimd\tilde{o}$ 'twenty • kakskümmend • divdesmit') and $-tuoist\tilde{o}n$ '-teen • -teist • -padsmit' $(v\bar{\imath}\check{z}|tuoist\tilde{o}n$ 'fifteen • viisteist • piecpadsmit'), and also $-sad\bar{a} \sim -sadd\tilde{o}$ 'hundred • sada • simts' (seven hundred • $seis|sad\bar{a} \sim seis|sa'dd\tilde{o}$ 'seitsesada • septiņsimt'). The modifiers of these compound numerals are cardinal numerals.

Sometimes compound cardinal numerals are also constructed using the head -tūontõ 'thousand o tuhat o tūkstotis', though compounds of this sort are occasionally used just for emphasis (Möštād, möštād – kimtū'ontõ rubīļt! 'Understand, understand – ten thousand roubles! o Saa aru, saa aru – kümmetuhat rubla! o Saproti, saproti –

desmittūkstoš rubļu!'). Usually these word groups are perceived and also written separately.

Fractional numerals are constructed using a unique compound numeral suffix -jag and -jagū '-part (fractional suffix) - -jagu, -ndik -- daļa' (neļļõz|ja'g ~ neļļõz|jagu 'one-fourth • neljandik • ceturtdaļa') and an ordinal numeral as the modifier.

Modifiers in compound cardinal numerals are in the nominative. They agree in case with the head component in the singular nominative, genitive, and partitive, but remain in the singular genitive for all other singular and also plural cases ($v\bar{\imath}$ 'dkimdõ e'žmi 'fifty-first • viiekümne esimene • piecdesmit pirmais'; ī'dtuoistõn sōnō 'until eleven • üheteistkümneni • līdz vienpadsmitiem'; pie'rrō vītōkimdō ~ kōdokstsa'ddo āigasto 'after fifty ~ eighty years • viiekümne ~ kaheksakümne aasta pärast • pēc piecdesmit ~ astondesmit gadiem; ta lekš ku'bs ne kō'dtuoistõndõks 'he went with those twenty • ta läks koos nende kaheteistkümnega • viņš gāja kopā ar tiem divpadsmit'). The few fossilised compound pronouns are constructed similarly (por|kimdo 'a few ten paarkümmend pardesmit'; mits|kimdo 'several tens • mitukümmend • vairāki desmiti'; set|kimdõ 'several tens • mitukümmend • vairāki desmiti'), but the modifier is not declined.

The head -saddo has developed in Livonian as a replacement for -sadā, which is clearly the partitive form of -sadā. There are also forms using the head -kimdō (<NSg kim > PSg kimdō 'ten • kümme • desmit'), which are constructed similarly by analogy; however, compound numerals formed using these head components are not declined. There are also other occasional numerical compounds, which are also not declined (pūol|tūoizta 'one and a half poolteist pusotrs').

In forming compound ordinal numerals, the following suffixes function as head components -kimdoz '-tieth (ordinal suffix for multiples of ten) • -kümnes • -desmitais', -sadāz '-hundredth • -sajas • -simtais', -tuoistõnz '-teenth - -teistkümnes - -padsmitais'. Modifiers are in the genitive singular ($k\bar{o}$ 'd| $kimd\tilde{o}z$ 'twentieth • kahekümnes • divdesmitais'; kūd|sadāz 'six hundredth | kuuesajas | sešsimtais'; ī'd|tuoistõnz 'eleventh • üheteistkümnes • vienpadsmitais'). The same practice is followed for forming compound numerals with -tūontōz (kō 'd|tuontōz 'two thousandth • kahetuhandes • divtūkstošais').

There is also an alternate method for forming ordinals using the head -tuoistõnz, where two ordinals are combined (nellõz||tuoistõnz 'fourteenth • neljateistkümnes • četrpadsmitais'; $v\bar{\iota}d\tilde{o}z||tuoist\tilde{o}nz$ 'fifteenth • viieteistkümnes • piecpadsmitais'; seismõz||tuoistõnz 'seventeenth • seitsmeteiskümnes • septiņpadsmitais'), but their use is rare. When modifiers are in the nominative singular for such compounds, they also agree with the head.

In the case of the head -tuoistõnz, compound ordinal numerals are constructed with modifiers in the genitive singular. However, occasional compound ordinals have been observed with a nominative component. These forms may have been constructed analogically based on cardinal numerals ikš|tuoistõnz 'eleventh " üheteistkümnes " vienpadsmitais' and kakš|tuoistõnz 'twelfth " kaheteistkümnes " divpadsmitais'; however, one does not find other such forms with a nominative component (for example, the following forms have not been encountered: vīž|tuoistõnz 'fifteenth " viieteistkümnes " piecpadsmitais' and kūž|tuoistõnz 'sixteenth " kuueteistkümnes " sešpadsmitais').

2.1.7. Compound pronouns

Livonian also has a small number of compound pronouns (\(\tilde{a}ts \) mingi 'someone, anyone 'e keegi, mingi 'e k\(\tilde{a}ds'\); \(\tilde{t}d \) |tuoiz' one or the other person/thing, some but not all individuals within a group 'e \(\tilde{u}steise\), teineteinse 'e viens otrs, cits cits'; \(jeg\alpha \) |ik\(\tilde{s}\)' everyone 'e iga\(\tilde{u}sk\), iga 'e ikviens, katrs'; \(mit \) |ik\(\tilde{s}\)' nobody 'e ei keegi, mitte keegi, mitte \(\tilde{u}sk\) i' neviens'; \(\tilde{t}'dt \) |a'mm\(\tilde{o}\)' all of it 'e seda k\(\tilde{o}ike\) 'e to visu'). As this last form is constructed based on a partitive form, it is not declinable.

2.1.8. Verb forms as part of compound nouns

When the head of a compound noun describes a particular purpose connected with a concrete action, the modifier used in the compound is generally the declinable active present participle corresponding to that action (ē'kōrtōb|nō'ggōl' crochet needle "heegelusnōel" tamboradata', glōibdōb|lōja 'lifeboat [lit. rescue boat] "pääsetepaat "glābšanas laiva', optōb|āigast 'school year [lit. study year] "õppeaasta "mācību gads'; ri'ggō|nītōb|āiga 'rye harvest "rukkilōikus "rudzu pļauja'; metāl|sulatōb|ōj' metal foundry "metallisulatusahi "metālkausētava'; na'ggōrd|vōttōb|āiga 'potato harvest time "kartulivōtuaeg "kartupeļu novākšanas laiks').

This group of compounds probably developed under the influence of Latvian declinable passive present participles (endings $-ams \sim -ama$, $-\bar{a}ms \sim -\bar{a}ma$), which are common in Latvian compound nouns and word groups ($s\bar{\imath}ed\tilde{o}b|l\bar{o}da$ 'dining table \circ söögilaud \circ ēdamgalds';

je'ltõb|tubā 'living room • elutuba • dzīvojamā istaba' je'ltõb|kuodā 'residential building [lit. living house] • elumaja • dzīvojamā ēka'; pū'gdõb|lil 'wind instrument [lit. blowing tube] • puhkpill • pūšamais instruments'). Though semantically the declinable active present participle is in the nominative in these words, in declension these modifiers do not agree with the head. This is also probably due to the example of Latvian, in which a participle modifier will lose its definite ending within the compound.

The active present participle can also occur as a head, where it denotes semantically an action carried out with a particular tool (kaffe|jo'vtõb 'coffee grinder • kohviveski • kafijas dzirnaviņas'; linād piekstõb 'flax brake • lõuguti • mīstīkla').

Similarly supine forms can also be used as modifiers (i'mtom|āiga 'nursing time • imetamisaeg • zīdīšanas laiks'; *nutām*|*sõna* 'interjection • hüüdsõna • izsauksmes vārds'; ma'ggõm|lā'dõb|āiga 'bedtime • magamaminekuaeg • gulētiešanas laiks'), also verbal nouns (ma'ggimiz azūm 'sleeping place • magamisase • gulvieta'; urgimiz|mäng 'hide and go seek • peitusemäng • paslēpes'), and other derived verbal noun forms (kazātõks|ve'l 'step-brother • kasuvend • audžubrālis'; kītõks|kēra 'letter of recommendation • soovituskiri • ieteikuma vēstule'; na 'ggõrd|võttõks|āiga 'potato harvest time • kartulivõtuaeg • kartupeļu novākšanas laiks'), which generally indicate a purpose related to an action, but less often refer to an overall purpose (sīemiz|vigā 'hunger [lit. eating purpose] • nälg • izsalkums').

Active past participles can also be used as modifiers. These describe the resulting property of the activity (druppon|leba 'bread crumbs • leivapudi • maizes drupatas'; appõn | notoz 'sauerkraut [lit. pickled cabbage] • hapukapsas • skābēti kāposti, skābie kāposti'; kuppõn|sēmḍa 'curds, cottage cheese • kohupiim • biezpiens'; oudon|kosta 'sleepy head • põõnaja • guļava'; pō'dõn | āiga 'oppressive heat • leitsak • tveice'; vie 'nnon|lū 'lazy person | laiskvorst | slinkis').

On rare occasions, the modifier can be an agent noun in the nominative (a'iliji|pusk 'twining plant, bindweed • kassitapp, seatapp • tītenis'; kāndaji|kanā 'laying hen • munakana • dējējvista'; lōlaji|lind 'songbird • laululind • dziedātājputns'; virgtiji kīela 'alarm clock • äratuskell • modinātājpulkstenis'). There is a possibility that the form in which these agent nouns appear has also been influenced by Latvian $(d\bar{e}j\bar{e}j(a)vista,$ $dzied\bar{a}t\bar{a}j(s)putns$, $modin\bar{a}t\bar{a}j(s)pulkstenis \sim modin\bar{a}t\bar{a}js$).

In compound nouns formed from verbal and agent nouns derived from phrasal verbs, the modifier is formed from the adverb occurring

with the phrasal verb. This modifier is connected to the head derived from the verbal or agent noun (jarā|lieptimi 'reconciliation | lepitus | samierināšana'; ku'bbo pūtimi 'contact | kokkupuutumine, kokkupuude • saskarsme'; kä'ddõ|maksāmi 'revenge • kättemaks • atriebība'; si'zzõl|tu'lmi 'income o sissetulek o ienākums'; vāldin|tī'emi 'opening, unveiling avamine, lahtitegemine' atvēršana, atklāšana'). Compounds nouns can also be formed from phraseological verbs according to the same principles (tā'dõl|pa'nmi 'attention, recognition • tähelepanu • uzmanība, ievērība'; sõnā kūlimi 'obedience o sõnakuulmine o paklausība'; mī'elõ|lē'mi 'marriage • meheleminek • apprecēšanās, iziešana pie vīra') and other verbal derivations where the source is a phrasal or phraseological verb (*jarā|likkom* 'deviation • hälve • novirze'; $j\bar{u}$ ' $r\tilde{o}$ | $t\bar{a}$ ' $t\tilde{o}ks$ ' note, remark • märkus • piezīme'; je' $dd\tilde{o}$ | $v\tilde{o}t\bar{a}m$ ' enterprise, undertaking • ettevõte • uzņēmums'; je'ddõ|kēratõks 'written instructions • eeskiri, ettekirjutus • priekšraksts'; je'dst|polandoks 'a prayer for someone eestpalve aizlūgums', le'b|ī'edtõks 'cross-section, split = läbilõige • šķērsgriezums, šķēlums'; si'zzõl|kēratõks 'entry, dedication inscribed in a book • sissekirjutus • ieraksts'; i'l|astām 'violation, transgression • üleastumine • pārkāpums'; si'zzõl|jū'ondõm 'introduction • sissejuhatus • ievads'; kä'ddõ|maks 'revenge • kättemaks • atriebība') as well as other verbs containing expressions (entšta armaztimi 'selfishness • enesearmastus • patmīlība'; nõ'v|āndami 'lecturing • manitsemine pamācīšana'; rō'|sōtimi 'money transfer rahasaadetis naudas sūtījums, naudas pārvedums'; *mägīz|grēbiji* 'mountain climber • mägironija • alpīnists'; tādõks|pū'gimi 'bloating, swelling • puhitus • uzpūšanās').

It is also possible to use other verb forms $(ik\check{s}|k\tilde{o}rd|ik\check{s}$ 'multiplication \circ ükskordüks \circ reizrēķins'; $s\bar{\iota}ed\tilde{o}|t\bar{\iota}'mi$ 'appetite \circ söögiisu \circ ēstgriba') or translated loans $(je'ls\tilde{o}|\tilde{o}'bd\tilde{o} \sim jel\bar{a}b|\tilde{o}'bd\tilde{o}$ 'mercury \circ elavhõbe \circ dz $\bar{\iota}$ vsudrabs'; $ri\check{s}t\tilde{o}d|ni'm$ 'name, given name \circ ristinimi \circ vārds, krist $\bar{\iota}$ tais vārds') as modifiers.

2.1.9. Particles as part of the compound noun

In compound nouns, particles can occur as modifiers $(p\bar{u}ol|pi'md\tilde{o})$ 'half blind opoolpime pusakls'; $imm\tilde{o}r|kout$ 'neighbourhood oumbruskond, kant apkaime, apkārtne'; $ulz|v\bar{t}$ 'contour, configuration piirjoon, väliskuju apveids'; $ku'bs|r\tilde{o}k$ 'conversation vestlus aruna'; $ku'bs\tilde{o}|t\bar{t}e$ 'collaboration koostöö kopdarbs'; $siz\bar{a}l|az\bar{a}d$ 'internal affairs siseasjad iekšlietas'; $si'zz\tilde{o}l|maks$ 'deposit oponical karing in siseasjad in iekšlietas'; $si'zz\tilde{o}l|maks$ 'deposit oponical karing in iekšlietas'; $si'zz\tilde{o}l|maks$

sissemaks • iemaksa'; i'l|rõkūd 'debate, discussions • vaidlus, väitlus • diskusijas, pārrunas'; i'l|tarāli 'neighbour o naaber, üleaedne o kaimiņš'; pīenõst|tundiji 'sensitive, tactful • peenetundeline • smalkjūtīgs'; vastõ|va'it 'counterweight | vastukaal | pretsvars'; pū'dõst|ve'rrit 'pure blood • puhtaverelisus • tīrasinība').

Adverbs referring to movement occur as modifiers only with $-p\bar{e}'di$ 'having the characteristic of \circ -pidine \circ - \bar{e} is, - \bar{i} gs' as the head (je'ddõ|pē'di 'future, further, later • edaspidine • turpmākais'; ullõ|pē'di 'exterior, outward • välispidine • ārējs, ārīgs'; sizāld|pē'di 'interior, inner, coming from within seestpoolne iekšējs, no iekšpuses nākošs'; sizāl|pē'di'interior, inside • sisemus • iekšiene').

2.1.10. Coordinate compound nouns

There are few coordinate compound nouns in Livonian. Generally, they are written with a hyphen (selli-tūoli 'like this, like that o niisugune-naasugune; mitmesugune • šāds tāds'; mingi-ä'b|mingi 'being all different ways, of indistinct character • igasugune • visāds, kāds nekāds, šāds tāds').

Both parts of coordinate compound nouns are usually in the nominative and also agree in case across the entire paradigm, including in the plural (PPl mingiži-äb|mingiži 'all sorts • igasuguseid • visādus'; PPl selliži-tuolliži a'ždi 'all sorts of things • igasuguseid asju • visādas lietas'). Some coordinate compound nouns are also indeclinable and descriptive (kõlā-kõlā 'zig-zag | loogeline | līču loču') or borrowed (sūomō-u'grō 'Finno-Ugric o soome-ugri o somugru-').

2.2. Compound verbs

There are very few compound verbs in Livonian. The majority of these are the joined forms of phrasal verbs (immor|kerato 'to rewrite • ümber kirjutada • pārrakstīt'; $m\bar{\phi}'z\tilde{o}|p\ddot{a}st\tilde{o}$ 'to unharness, unyoke • rakkest lahti võtta, rakkest päästa • izjūgt'; jarā|tuņšlõ 'to confirm, certify • tuvastada • apliecināt'), some compounds are derived other verbal sources (kuolm|kordasto 'to triple | kolmekordistada • trīskāršot') or are translated loans (arm|kadīkšõ 'to be jealous • armukadetseda • būt greizsirdīgam'; täud|vītistõ 'to improve, perfect • täiustada • pilnveidot').

Compound verbs are formed with an adverbial modifier affixed to the verb (i'||nustõ 'to transfer, to translate \circ tõlkida, ümber panna \circ pārcelt, pārtulkot'; $imm\~or|k\=erat\~o$ 'to rewrite \circ ümber kirjutada \circ pārrakstīt'; $jar\=a|liept\~o$ 'to appease \circ lepitada \circ samierināt'; $p\=al\~o|ou\~v\~o$ 'to yell at \circ käratada \circ uzbļaut') or a nominal modifier in the genitive affixed to the verb ($arm|kad\~v\~k\~o$ 'to be jealous \circ armukadetseda \circ būt greizsird $\~v$ gam'; $k\~o$ ' $d|k\~o$ rdat\~o 'to double \circ kahekordistada \circ divk $\~v$ rvito improve, perfect \circ täiustada \circ pilnveidot').

The Latvian prefix system plays an important role in the joined form of phrasal verbs. In Livonian compound verbs where a verb is prefixed with an adverb, the Latvian prefix system serves as a model. In order to form these compounds, Livonian uses the adverb corresponding semantically to the same prefix in Latvian (i'l|tap \bar{a} t \bar{o} ' to convince \bar{o} veenda \bar{o} p \bar{a} rliecin \bar{a} t' = i'l' over \bar{o} üle \bar{o} p \bar{a} r' tap \bar{a} t \bar{o} ' to testify \bar{o} tunnistada \bar{o} liecin \bar{a} t'; $p\bar{a}l\bar{o}$ |our \bar{o} ' to yell at \bar{o} käratada \bar{o} uzb \bar{o} laut' $-p\bar{a}l\bar{o}$ ' on top of (directional) \bar{o} peale \bar{o} uz, virs \bar{u} t' + our \bar{o} ' to yell \bar{o} karjuda \bar{o} blaut') or forms the entire phrasal verb in Livonian by analogy, often using Estonian as a semantic model ($imm\bar{o}r$ | $k\bar{e}rat\bar{o}$ ' to rewrite \bar{o} ümber kirjutada \bar{o} p \bar{o} rrakst \bar{u} t' = $imm\bar{o}r$ ' around \bar{o} ümber \bar{o} apk \bar{a} rt' instead of i'l' over \bar{o} üle \bar{o} p \bar{o} r'). In many instances where a compound verb is formed using an adverb, the existence of a Latvian prefix as well as other similar compound verbs has resulted in these semantically similar adverbs also to begin to develop into prefixes.

2.3. Compound adverbs

Most Livonian compound adverbs are formed from adverbial phrases. Other such phrases continue to be adverbialised and are often written as such in texts.

Compound adverbs practically form an entire part of speech in Livonian $(m\bar{u}s|p\bar{u}ols$ 'elsewhere • mujal • citur, citā pusē'; $per\bar{\iota}\eta|t\bar{u}ld\tilde{o}$ 'with the wind • pärituult • pa vējam'; mit|kūlõmõks 'not worth listening to • mittekuulmaks • par neuzklausāmu'; $am\bar{a}|le'b$ 'generally • üldse • vispār'; $v\tilde{o}ib|v\bar{o}lda$ 'maybe, perhaps • võibolla • varbūt'; $s\bar{a}$ ' $ld|p\bar{u}old$ 'from there • sealtpoolt • no turienes, no tās puses'; $t\bar{\iota}et\tilde{o}b|a$ 'ž $d\bar{\iota}$ 'of course • teadagi, muidugi • protams, zināms'; i'l|ka' $gg\tilde{o}l$ 'somersaulting • uperkuuti • kūleņojot'; $\bar{u}ndiz|p\bar{u}van$ 'the day before yesterday • üleeile • aizvakar'; $p\bar{u}olst|\bar{\iota}ed\tilde{o}$ 'at midnight • keskööl • pusnaktī'; $s\bar{u}rs|l\bar{\iota}ebas$ 'while arguing • tülis • strīdā'; $ul|v\bar{\iota}t\tilde{o}$ 'horribly • hullupööra • traki, briesmīgi', etc.).

The heads of some compound adverbs are forms such as -pēdon '-ward (indicating direction) - pidi - pa-, -up' (i'lz|pē'don 'upward - ülespoole • augšup'; va'nst|pē'don' in old age • vanast peast • vecumdienās, vecumā'), -pēdond 'from - -poolt, -väljapidi - no-' (sizāld pē'dond 'from inside • seestpoolt • no iekšpuses'), -pēn 'indicating direction, manner, location - pidi - pa-, -up' (tagārs | pēn 'the wrong way around • tagurpidi • otrādi, ačgārni'; i'llö|pēn 'higher, before • ülalpool • augstāk, iepriekš'), and -mīedõ 'along, after • mööda • pa, pēc' (rindő|mīedő 'in line o ridamisi o rindā'; kätā|mīedő 'tactile, palpable o käegakatsutav • taustāms'). Likewise, the modifier äts- 'some (particle) " ükskõik, kõik-, iga-, mingi- " kaut' (äts|kuigid 'somehow " ükskõik kuidas, mingitviisi • kaut kā'; äts|kunāgid 'at some time • millalgi • kaut kad') is used for forming compound adverbs and in some instances also compound adjectives.

Compound adverbs containing the modifier $-\bar{i}z$ 'self, own \circ sama- \circ -pat' are somewhat different in their construction, because unlike other modifiers, it follows rather than precedes the head (ne'i| \bar{i} 'ž' in the same way • niisama, niisamuti, samuti • tāpat, tāpat vien'; sā'l|ī'ž 'right there \circ sealsamas \circ turpat'; $s\bar{\imath}n|\bar{\imath}'\check{z}$ 'right here \circ siinsamas \circ tepat \sim right there • sinnasamase, sinnasamma • turpat'); $s\bar{\iota}'d\check{s}t|\bar{\iota}'\check{z}\sim t\ddot{a}st|\bar{\iota}'\check{z}$ 'from right here o siitsamast o no šejienes pat'). The construction of these compound adverbs is influenced by semantically and structurally similar Latvian compound adverbs.

As in compound nouns and also compound verbs, there exists a small group of old compound adverbs where the nominal modifiers have preserved the historical genitive ending *-n. (amn|i'ggõks 'already long ago • ammugi • jau sen'; kāinan allõ 'under one's arm • kaenla alla, kaenlasse • padusē'; mon|alā 'underground (directional) • maha, maasse - zem zemes (virziens)'. A portion of these words have may have also maintained the old lative ending *-na, for example, $m\bar{u}n$ | $\bar{a}igast$ 'in a different year • tulevaastal • citugad'; tä'mn | āigast 'this year • tänavu • šogad').

There is also a subgroup of coordinate compound adverbs (\(\bar{a}\)'k\tilde{o}l $b\bar{u}'k\delta l'$ in a hurried frantic way, head over heels • ülepeakaela • pa galvu, pa kaklu'; e'ggõl-pū'gõl 'out of breath, huffing and puffing • ähkidespuhkides • elšot pūšot'; immõr-immõrd 'indirectly • mõistamisi • aplinkus'; lougō-lougō 'slowly o tasapisi o palēnām'; sīņō-tānō 'back and forth sinna-tänna, siia-sinna surpu turpu'; sõ'v-sõvīn 'during the summers • suvi suvelt, suviti • vasarās, pa vasarām'; i'lsīlmad-ilpād 'in a hurried frantic way, head over heels • ülepeakaela • pa galvu, pa kaklu').

2.4. Compounds from other word classes

Just as with adverbs, there are other types of compounds, which have been formed from phrases. In Livonian there are compound prepositions $(pi'dd\tilde{o}z|m\bar{e}d\tilde{o})$ 'alongside, along with "rööbiti "līdztekus'; $t\bar{u}ola|p\bar{u}ol$ 'on the other side "sealpool "viņpus'; $t\bar{u}ola|p\bar{u}old\tilde{o})$ 'from over there "sealtpoolt "no turienes, no tās puses'; $t\bar{u}ola|p\bar{u}ol\tilde{o})$ '(to) over there, in that direction "sinnapoole "turp, uz to pusi'; $tuoiz|p\bar{u}ol\tilde{o})$ 'to the other side "teisele poole "uz otru pusi, otrpus'; $tuoiz|p\bar{u}ols\tilde{o})$ 'on the other side "teisele pool "otrā pusē, otrpus'; $tuoiz|p\bar{u}ols\tilde{o})$ 'from the other side "teisel pool "otrā puses, otrpus'), compound postpositions ($k\ddot{a}'d|kouti$ 'through "kaudu "caur'), and compound conjunctions (koks|ka 'although "kuigi ka "kaut arī'; $mis|j\bar{u}s$ 'in addition "misjuures" turklāt'; $mis|pier\bar{a}st$ 'why "mispärast "kāpēc'; ne'i|ku 'as "nagu "kā').

Conclusions

The Livonian system of compounds tells the story of the history of the Livonian language. It hides within itself archaic features such as the historical genitive ending *-n as well as signs of later developments in noun cases found in the declension paradigms of declinable compound noun modifiers. The same can be seen in Livonian compounds with respect to language contact. Bilingualism and living side by side resulted in compound formation principles similar to those found in Latvian as well as certain unique types of compounds such as compound nouns formed with active present participles. More recently, compounds have been formed on the model of Estonian and other languages or translated and borrowed into Livonian.

It can be said that the Livonian system of compounds, like the Livonian language as a whole, exists between two worlds. On one side, one finds the traditional compound formation principles of the Finnic languages, on the other, the characteristics of compound formation typical for Latvian. This situation also causes some shifts in compound formation principles some as well as in their use. As a result, while in most cases we can create a mostly precise general description of compound formation, it is often not possible to define a single set of rules for compound formation.

A comparison between the two language systems shows that compound use is a little broader in Livonian than in Latvian. Most Livonian compounds, where Latvian uses a word group to for the corresponding construction, are formed analogically to Estonian stem compounds (rōda|na'ggõl 'iron nail • raudnael • dzelzs nagla'; filts|sōpkõd 'felt boots • viltsaapad • filca zābaki'), though the modifier in Livonian is generally in the genitive.

Understanding the Livonian compound system is considerably aided and made more effective through the use of Livonian written language corpus for the present study. It has helped and will help also in the future to find unique compounds, clarify their groups and the morphological features of compounds. So, for example, on the basis of the present data, one can already safely say that there may be far more compound nouns with declinable modifiers in Livonian than present in LELD.

The ongoing work described in this study is only a preliminary introduction to a description of the formation principles and morphology of Livonian compounds. The corpus, its labelled portion and also the existing morphological data in the database, makes it possible to return to this topic again in the future and with the help of new data to not only expand our understanding of it, but to perhaps even see it from a new perspective.

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Abbreviations and additional markings

El – elative, In – inessive, Sg – singular, Pl – plural, P – partitive, | – component boundary within compounds, || – component boundary within compounds where both components are declined, • divider between English, Estonian, Latvian translations, '– broken tone (stød).

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LELD = Viitso, Tiit-Rein and Valts Ernštreits (2012).

LLDB= Viitso, Tiit-Rein and Valts Ernštreits (2016).

LMDB = Viitso, Tiit-Rein and Valts Ernštreits (2017).

LW = Kettunen Lauri (1938).

SiW b = Wiedemann, Ferdinand Johann (1861b).

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Kokkuvõte. Valts Ernštreits: Liitsõnade moodustamise põhimõtted liivi keeles. Liitmine on üks produktiivsemaid liivi keele sõnamoodustuse liike. Üldjuhul on liitsõnad sünteetilised, koosnevad ühest või mitmest täiendsõnast, millele järgneb põhisõna. Enamiku liitsõnadest moodustavad liitnoomenid, milles täiendsõna on valdavalt ainsuse genitiivis. Liivi keeles esineb ka oluline liitsubstantiivide ja -adjektiivide rühm, mis on säilitanud täiendsõnas ajaloolise ainsuse genitiivi lõpu *-n. Harvadel juhtudel saab liitsubstantiivides täiendsõna olla ka nominatiivis ning sellistes liitsõnades ühildub täiendsõna käänamisel osaliselt põhisõnaga. Läti keele eeskujul on liivi keeles tekkinud oluline liitnoomenite rühm, mille täiendsõnana kasutatakse tegevust tähistavat käänduvat aktiivi oleviku partitsiipi. Nii võib öelda, et liivi liitsõnasüsteemis nagu ka liivi keeles üldisemalt ilmnevad nii läänemeresoome keelte traditsioonilised liitsõnade moodustuspõhimõtted kui ka läti keelele iseloomulikud liitsõnade moodustamise jooned. Liivi keele liitsõnade süsteemist ülevaate tegemist aitas oluliselt liivi kirjakeele korpuse kasutamine.

Märksõnad: liitsõnad, keeleajalugu, keelekontaktid, liivi keel

möistő līvő kērakīel korpus kõlbatimi.

Kubbõvõttõks. Valts Ernštreits: Ītsõnād sādimiz pūojmõtkõd līvõ kīels. Ītimi um ikš amā produktīvist līvõ kīel sõnādlūomiz vīţist. Ītsõnād amā jemīņ ātõ sintētizt, nēḍi vīţõb ikš agā setmiņ līekõsõnnõ, mis tagān um alīzsõnā. Amā jemīņ līvõkīels ātõ nādõb ītnomend, kus līekõsõnā um īdlug genitīvs. Līvõ kīelst um lieudtõb ka tādzi ītsubstantīvõd ja ītadjektīvõd grup, kus līekõsõnā um vöidõn vanā genitīv lopāndõks *-n. Ōrastiz ītsubstantīvis līekõsõnā võib võlda ka nominatīvs ja seļļižis ītsõņši līekõsõnā ītõb nõtkīs alīzsõnāks. Leţkīel nägţõb pierrõ līvõ kīels um suggõn tādzi ītnomenõd grup, kus līekõsõnā um nõtkiji partitsip. Võib kītõ, ku līvõ kīel ītsõnād sistēms nemē ka līvõ kīels amnämniz ātõ lieudtõb nei vāldamiersūomõ kīeld irdizt ītsõnād lūomiz pūojmõtkõd, ku ka leţkīel ītsõnād lūomiz irdõkst. Līvõ kīel ītsõnād sistēmõ um dižānist äbţõn