

Research Article

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The expression of CHANGE-OF-STATE in the Finnic languages

<https://doi.org/10.1515/opli-2020-0013>

received October 17, 2018; accepted March 27, 2020

Abstract: The present article studies verbs that are used to convey CHANGE-OF-STATE in the Finnic languages: “to come”, “to go”, “to remain/stay”, “to get”, “will be”, “to make/do”, and “to be born/give birth”. These are polysemous core verbs, which can be expected to be integrated in constructions with (new) generalized grammatical meaning. As will be shown, in order to convey CHANGE-OF-STATE typically they occur in constructions that either mark the goal and the source or leave both unmarked. In addition, change can be associated with experiential, existential, and possessive constructions, which also enable to shed more light on the development of the above-mentioned verbs, including the possible development CHANGE-OF-STATE → FUTURE. The article demonstrates that each Finnic language uses several verbs from the list presented above, but there are differences in what are the most commonly used ones and in what kind of constructions they occur. In some languages, there is a general CHANGE-OF-STATE verb, which also appears as a future copula if there is no competing future copula. In the case of Estonian, Finnish, and Livonian, the results of previous studies on CHANGE-OF-STATE predicates were used; for the other Finnic languages, a separate data set was compiled using various collections of texts.

Keywords: BECOME-constructions, future copulas, clause types, language contacts

1 Introduction

The present article studies the expression of CHANGE-OF-STATE in the Finnic languages by means of intransitive analytic constructions.¹ The Finnic languages discussed here employ a verb meaning “to come”, “to go”, “to remain/stay”, “to get”, “will be”, “to make/do”, and “to be born”/“give birth”; see the use of Ingrian *sāvva* “to get” (e.g. 1)² and Estonian *jääda*³ “to remain/stay” (e.g. 2). The fact that the study of CHANGE-OF-STATE needs to take into account constructions becomes apparent when examples (3a) and (3b) are compared. CHANGE-OF-STATE is here associated with predicates that convey inchoative meanings, i.e. beginning of a new state. As claimed, the respective verbs tend to set the focus on the new state although they imply a previous event: X located in state 1 → X located in state 2 (Bonnefille 2006: 22, Radden and Dirven 2007: 274); e.g. the grain not being clean/movement not being slow → the grain being clean/movement being slow (1).

¹ In the Finnic languages, there are also synthetic means to express CHANGE-OF-STATE, but their relation to the analytic means deserves a separate study.

² The examples of the Finnic languages that originate from transcribed sources have been presented in simplified transcription as the exact pronunciation details are not relevant for the analysis.

³ The Finnic languages contain two infinitives, the *m*-infinitive and the *t*-infinitive (Laanest 1975). Whereas in Estonian, the *m*-infinitive is used as the base form, and in the other Finnic languages, the *t*-infinitive is used. Here for the sake of consistency, the *t*-infinitive is also used in the case of Estonian.

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(1)	<i>Sīs</i> then “Then the grain got clean.” (Ingrian; Laanest 1966: 224)	<i>sa-i</i> get-PST.3SG	<i>vil</i> grain	<i>puhta-ks</i> clean-TRA
(2)	<i>Liikumine</i> movement “The movement became slow.”		<i>jä-i</i> remain-PST.3SG	<i>aeglase-ks</i> slow-TRA
(3)	a.	<i>Ma</i> I “I am going/I will go”	<i>lähe-n</i> go-1SG	
	b.	<i>Ma</i> I “I will go crazy” (Estonian)	<i>lähe-n</i> go-1SG	<i>hullu-ks</i> crazy-TRA

Previous studies reveal that Finnic languages are rich in CHANGE-OF-STATE predicates; see e.g. Pajusalu and Trägel (2007) for Estonian, Tommola (2010) for Finnish, and Norvik (2014a) for Livonian. It turns out that although the set of verbs that may occur in these predicates is similar in these languages, there are several differences in their use, such as in the most commonly used CHANGE-OF-STATE predicates. In Livonian, the verb *iedō* “stay/remain” is typically used to express change in general (Norvik 2014a), whereas the Estonian cognate *jäada* is primarily associated with the expression of negative changes (Pajusalu and Trägel 2007), and the Finnish cognate *jääda* is all in all marginal in such usage (Tommola 1995, Huomo 2007). Differences in the syntactic behaviour have also been pointed out, e.g. the Finnish *tulla* “to come; to become”, when used in a source-marked (SM) construction (see the elative-marking in 4a), can code the resulting state with an adjective complement, which does not apply to Estonian (cf. 4b) (VISK § 904, Erelt 2005).

(4)	a.	<i>Mei-stä</i> we-ELA “We will be famous” (Finnish; Erelt 2005: 21)	<i>tule-e</i> come-3SG	<i>kuuluis-i-a</i> famous-PL-PRT
	b.	<i>*Mei-st</i> we-ELA (Estonian)	<i>tule-b</i> come-3SG	<i>kuulsa-i-d</i> famous-PL-PRT

In this article, the main aim is to give a general picture of the expression of CHANGE-OF-STATE in the Finnic languages. To meet this goal, the usage of CHANGE-OF-STATE predicates in Karelian (represented by Valdai and Livvi-Karelian), Veps, Ludic, Ingrian, Votic, and Lutsi (an Estonian-language island in Latvia) is analysed and placed against the background of Estonian, Livonian, and Finnish. Separate attention is devoted to the further development into future copulas⁴ as CHANGE-OF-STATE → FUTURE is cross-linguistically a common grammaticalization path. The analysis takes into account the role of underlying constructions,

⁴ Usually distinction is made between the terms *copula* and *semi-copula*. Differently from copulas, the semi-copulas are claimed to add some meaning to the predicate phrases in which they occur (Pustet 2003: 5–6). However, *copula* may be used as a cover term to subsume both cases (Geist and Rothstein 2007: 1). In this article, *copula* appears as a cover term but the more specific term *future copula* is also used to denote the outcome of the development CHANGE-OF-STATE → FUTURE. In other cases, the term *CHANGE-OF-STATE predicate* or *BECOME construction* is preferred over semi-copula as CHANGE-OF-STATE explicitly refers to the central topic of this article.

the semantic differences the various verbs can exhibit as well as the outcomes of neighbouring languages (including cognate languages) on the use of these predicates.

The article proceeds as follows: Section 2 provides the background, Section 3 introduces the materials and methods, Section 4 provides the analysis of the main results, and Section 5 draws the conclusions.

2 Background

As follows, Section 2.1 introduces common sources of copulas and their paths of development. This enables later to regard the Finnic verbs against the broader background, i.e. how common they are cross linguistically. Section 2.2 devotes separate attention to the syntactic properties of the constructions that can be relevant in determining the various usages into which the constructions can be put.

2.1 Copulas and their development

There is cross-linguistic evidence, which suggests that copulas tend to develop out of verbs and less commonly out of pronouns (Pustet 2003: 54). According to Stassen (2004: 92–93), typical sources for copulas are the verbs with the original meaning “to do/make/build”, “to happen/occur”, “to go/turn into/come/become”, and “to act(like)”. As regards the expression of CHANGE-OF-STATE, cross linguistically the commonest sources are the verbs “to go” and “to come” (Heine and Kuteva 2002: 74–5); see e.g. (5) and (6). Their development is sometimes explained using the conceptual metaphor STATES ARE LOCATIONS, from which it is deduced that CHANGE OF STATE IS CHANGE OF LOCATION (Radden 1996). Schematically it can be represented as follows: $X \text{ MOVES TO } Y_{\text{location}} \rightarrow X \text{ CHANGES TO } Y_{\text{state}}$ (Bonnefille 2006: 22).

(5)	<i>She went (*came) out of his mind</i> (Radden 1996: 432)
(6)	<i>He came (*went) round very slowly</i> (Radden 1996: 432)

As examples (5) and (6) indicate, it is common for a language to contain several CHANGE-OF-STATE predicates, which have developed out of different sources or out of similar sources at various times. An example of renewal/replacement within the concept of BECOME is replacement of the Old English *weorðan* “to become” with *becuman* “to come; obtain” (Clancy 2010: 256). To compare, the German cognate *werden* can still be used to mean “to become” (7). Currently, the English *get* is claimed to show increase in the range of uses (Clancy 2010: 39).

(7)	<i>Er</i>	<i>wurde</i>	<i>Arzt</i>
	He	will_be.PST.3SG	doctor
	“He became a doctor.”		

Occurrence of several CHANGE-OF-STATE predicates is typically possible due to the different usages into which they can be put. Often there are semantic constraints. For instance, the English *become* tends to be the most neutral CHANGE-OF-STATE verb, whereas several process verbs, especially motion verbs, are used to convey more specific meanings: *turn* is associated with abrupt changes (*The traffic light **turned** red*), *fall* with sudden uncontrolled changes (*Beverly **fell** in love*), and *grow* with gradual changes (*You never **grow** old*; Radden and Dirven 2007: 274). The distinction between the English *come* and *go*, in turn, is explained by bringing in the distinction between metaphorical motion in “opposite directions”. When used metaphorically, *go* tends to express “motion” away from a normal course of events leading to unexpected and often abnormal or even unpleasant changes of state (ex. 5), whereas *come* expresses an event’s terminative and normal “outcome” and

is usually associated with expected and gradual, often pleasant changes (ex. 6; Radden and Dirven 2007: 274–75). The Finnish *tulla* “to come” is also shown to adhere to the conceptual metaphor GOOD IS HERE (Huumo and Sivonen 2010).

The same way as there can be several CHANGE-OF-STATE verbs, there can also be several future copulas. Bickel (1992) discusses the complementary use of the future copulas *wèerde* “to become; to get”, and *überchoo* “to get, receive” in Züritüütsch (a variety of Swiss German): if a predicate is constructed with *sii* “to be”, the corresponding future copula is *wèerde*, whereas in the case of *haa* “to have” *überchoo* is used.

2.2 Underlying constructions

The same way as there can be semantic constraints on the usage of CHANGE-OF-STATE predicates, there can be syntactic restrictions. Whereas German *bleiben* “to remain/stay” takes the following complements: noun phrase (NP), adjective phrase (AdjP), prepositional phrase (PP), and verb phrase (VP; ex. 8a); German *werden* “will be” appears only with NP, AdjP, and VP, but not with PP (marked with an asterisk; see e.g. 8b; Geist and Rothstein 2007: 2). A further example is the English verb *get*, which only combines with adjectival complements (9; Clancy 2010: 40). The Estonian *tulla* “to come” reveals a similar case as differently from the Finnish *tulla* (cf. 4.1.1), and it is incompatible with adjectival complements.

(8) a.	<i>Klara bleibt Lehrerin/gesund/in der Stadt/sitzen.</i> “Klara will remain the teacher/healthy/in the city/sitting.”
b.	<i>Klara wird Lehrerin/gesund/*in der Stadt/sitzen.</i> “Klara will become a teacher/healthy/be in the city/be sitting.”
(9)	<i>She got mad/* She got a doctor ≠</i> <i>She became a doctor</i>

Previous research shows that case marking can also play a role in distinguishing between different readings. In Russian, which is the main contact language of several Finnic languages, but also in Polish and Czech, the constructions associated with BECOMING require the instrumental case (10), but there is variation in the use of the nominative and the instrumental case for conveying BEING (Clancy 2010: 98). The choice of instrumental is sometimes attributed to the expression of temporary and non-inherent states related to professions (10) and periods of life (e.g. childhood), whereas the nominative is said to occur with permanent or inherent nouns (conveying identity). However, there are also other explanations. In the case of Russian, it has been pointed out that the instrumental is more common with past and future forms (11). In Czech, in turn, the instrumental forms are associated with literary language (Clancy 2010: 19, 98). To compare with Estonian, the differences between the nominative and the translative (12) are explained as follows: the nominative option “is just a non-marked form of time stability, denoting class-membership as such”, meaning that the nominative form can also be used for temporary situations (Erelt and Metslang 2003: 167).

(10)	<i>On</i> <i>he</i> “He became a doctor” (Russian; Clancy 2010: 99)	<i>sta-l</i> become-PST.M	<i>vrač-om</i> doctor-INS
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(11)	<i>V</i> in	<i>ljuboj</i> any:LOC	<i>kompanii</i> company:LOC	<i>budet</i> will_be:3SG	<i>želannym</i> desired:INS	<i>gostem...</i> guest:INS
	“In any group he would be a much-sought-after guest...” (Russian; Clancy 2010: 98)					

(12)	<i>Kaja</i> Kaja	<i>on</i> be.3SG	<i>Eesti</i> Estonian.GEN	<i>suursaadik /</i> ambassador
	<i>suursaadiku-ks</i> ambassador-TRA	<i>Inglismaa-l</i> England-ADE		
	“Kaja is the Estonian ambassador in England” (Estonian; Erelt and Metslang 2003: 167)			

The following analysis of CHANGE-OF-STATE predicates in the Finnic languages considers the semantic differences between the usage of these verbs and the role of underlying constructions.

3 Materials and methods

I collected linguistic data from seven varieties of the Finnic languages: Ingrian, Votic, Veps, Ludic, Livvi-Karelian, Valdai Karelian, and Lutsi (a variety of Southern Estonian). For Estonian, Finnish, and Livonian, I did not compile a separate data set but I used the results of previous studies on the expression of CHANGE-OF-STATE (e.g. Pajusalu and Trägel 2007 for Estonian, Tammola 2010 for Finnish, and Norvik 2014a for Livonian).

For data collection, I mainly used collections of texts. In the case of Veps and Ludic, I also included my own fieldwork recordings (Norvik 2012, 2014b in Table 1). The collections of texts used for the present study contain transcribed oral texts, which are mostly narratives about past events, descriptions of everyday activities, fairy tales, or other stories; most of them are translated into Finnish, Estonian, or Russian. As text collections vary in their size (approximate page numbers are given in Table 1) and coverage of dialects, it was necessary to consult several text collections to get a representative sample for some languages (e.g. for Veps and Votic). Whenever there were not enough examples (the goal was to collect 100 examples per language), I made use of the examples provided in dictionaries. Due to scarcity of written sources on Ingrian, only 47 examples in total could be gathered. In the case of Ludic, in turn, the total number of examples was 100, but the results are presented separately for the Northern and Central Ludic. The reason is that the examples in the data set revealed a clear divide between the means of expression. In the case of other languages, such striking differences could not be discovered.

The majority of the data originated from the 1950s to the 1970s, and to some extent also from the beginning of the twentieth and twenty-first centuries. In the case of Valdai Karelian and Lutsi, there are no data available from the twenty-first century as these language varieties have become extinct by now. Still both provide an interesting point of comparison as Lutsi and Valdai Karelian language islands were formed in the seventeenth century as a result of migration from South Estonia and South Karelia, respectively.

The final data set included 100 examples from each language. As collecting and coding of the examples were to a great extent done manually and, in some occasions, the total number of examples exceeded 100 by only a little (e.g. there were in all 110 in the Valdai Karelian source), I selected the final 100 examples randomly. It is important to note that Table 1 does not distinguish between the CHANGE-OF-STATE and FUTURE usages.

The procedure for compiling the data set consisted of two stages. First, I detected the verbs, which in the case of each language/language variety could appear as CHANGE-OF-STATE predicates. Overall, there were seven verbs, which deserved a closer look: “to come”, “to go”, “to remain/stay”, “to get”, “will be”, “to make/do”, and “to be born”/“give birth”. They are included in Table 1 (capitalization denotes the concept associated with the respective verb: COME, GO, REMAIN/STAY, GET, WILL BE, MAKE/DO, and BE BORN/GIVE BIRTH). I only

Table 1: Overview of the data set

Language/language variety	Time of collection of the linguistic data and publication details	COME	GO	REMAIN/STAY	GET	WILL BE	MAKE/DO	BE BORN/GIVE BIRTH	Total
Ludic	North. Centr.	3	1	1		34		8	47
	1920s–1940s Ojansuu et al. 1934 – 150 pp. Kujola 1944 (dictionary)								
	1920s–1940s Ojansuu et al. 1934 (see above) Kujola 1944 (see above)				14			39	53
	2010s Norvik 2012 (recordings)								
Livvi-Karelian	1960s–1980s NKK – 78 pp.	3		4		5		88	100
Veps (North., Centr., South.)	1910s Kettunen 1920 – 63 pp.	9	2	9		24	56		100
	1930s NVM 1935 – 93 pp.								
	1960s OVR 1969 – 140 pp.								
	2010s Norvik 2014b (recordings)								
Valdai Karelian	1950s–1960s Palmeos 1962 – 71 pages			6		90		4	100
Ingrian ^a	1880s Porkka 1885 – 15 pp.	17		7		9	14		47
	1950s–1960s Laanest 1966 – 114 pp.								
	Nirvi 1971 (dictionary)								
Votic (West., East.)	1960s–1970s Ariste 1962 – 160 pp. Adler 1968 – 91 pp. Ariste 1977 – 85 pp. Ariste 1982 – 52 pp.	41	7	18	2	32			100
Lutsi	1910s–1930s, 1950s–1970s EM IX – 83 pp.	1	2	18	78		1		100
	Total:	74	12	63	89	213	57	139	647

Note: The page numbers only give an approximate idea of the size of the source material used to collect the linguistic data. In the case of Veps and Votic, several sources were consulted in order to have examples from different dialects.

Table 2: Intransitive constructions used with CHANGE-OF-STATE predicates^a

	Construction	Example			Translation
i.	Unmarked	NP_{nom}	V	NP _{nom} /AdjP _{nom} /AdvP	
	Valdai Karelian <i>lie(nöy)</i> “will be”	<i>mie</i>	<i>lieñin</i>	<i>kohtuñe</i>	“I got pregnant”
ii.	Goal-marked (GM)	NP_{nom}	V	NP _{tra} /AdjP _{tra}	
	Estonian <i>jääda</i> “remain; stay”	<i>Ta</i>	<i>jäi</i>	<i>haigeks</i>	“S/he fell ill”
	(a)	NP_{nom}	V	NP _{ess}	
	Veps <i>lindä</i> “will be”	<i>siñä</i>	<i>l'ĩñned</i>	<i>vanhamban</i>	“You will become our superior”
	(b)	NP_{nom}	V	Adv _(loc)	
	Lutsi <i>mindä?</i> “go”	<i>süä</i>	<i>lät's</i>	<i>lahki</i>	“The heart broke”
iii.	Source-marked (SM)	NP_{ela}	V	NP _{nom} /AdjP _{nom}	
	Lutsi <i>saada</i> “get”	<i>must</i>	<i>saa</i>	<i>kume kannel'</i>	“I will become a zither”
iv.	Existential	(AdvP)	V	NP _{nom} /AdjP _{nom}	
	Votic <i>tulla</i> “come”		<i>tuli</i>	<i>kõikkia pimmiä</i>	“It turned totally dark”
v.	Experiential	NP_{loc}	V	AdjP _{nom}	
	Ludic <i>rodida</i> “give birth”	<i>hällne</i>	<i>rod'ī</i>	<i>d'üged</i>	“It became hard for him/her”
vi.	Possessive	NP_{loc}	V	NP _{nom}	
	Veps <i>t'ehetakse</i> “make/do”	<i>meil'</i>	<i>t'eghez</i>	<i>koume l'ehmad</i>	“We were left with three cows”

^a Although the column *Examples* occasionally contains more than one option, the one used in the example sentence is indicated in boldface.

considered the above-mentioned verbs occurring in intransitive constructions. Second, in the case of each example, I coded the main CHANGE-OF-STATE predicate, the underlying construction, the tense of the verb, and the time reference.

4 Results

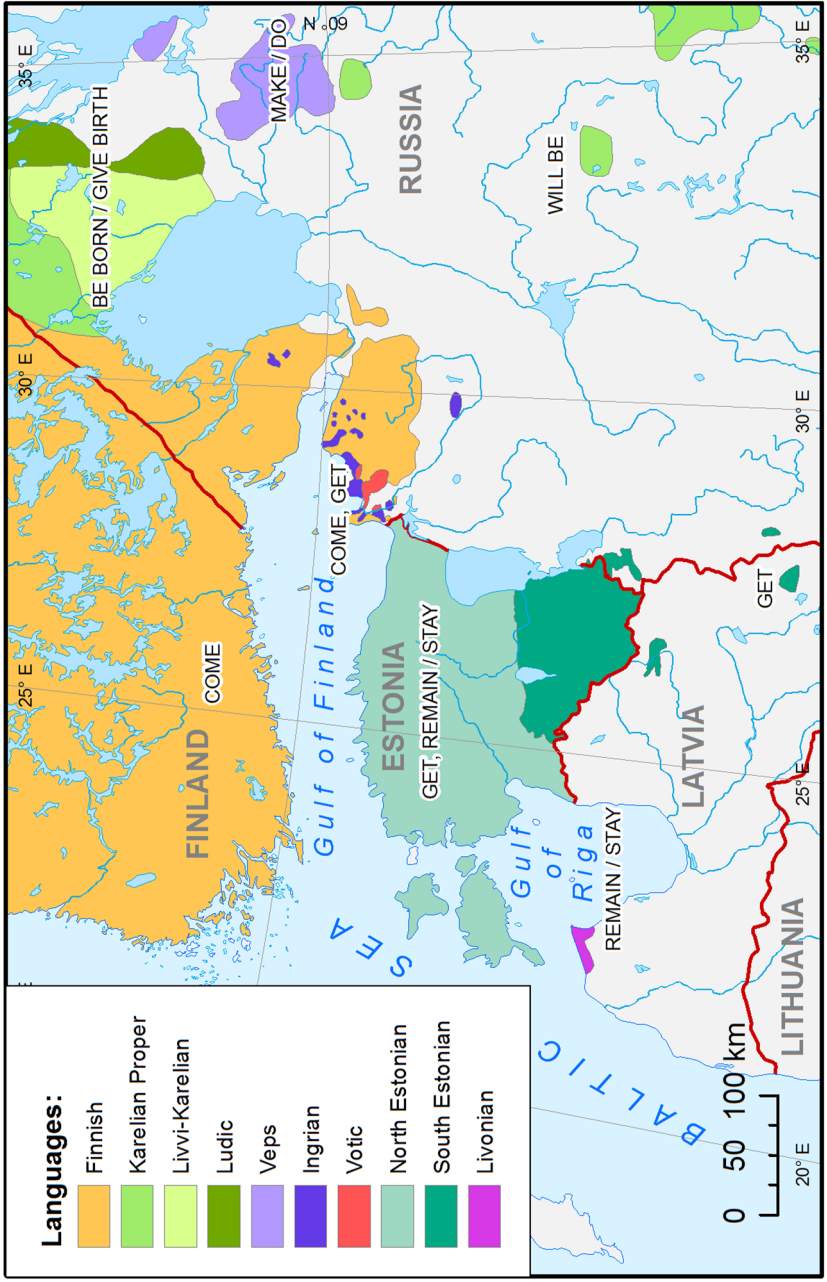
The results show that all the Finnic languages contain several CHANGE-OF-STATE predicates in various intransitive constructions. It only varies from language to language, which of the seven verbs (“to come”, “to go”, “to remain/stay”, “to get”, “will be”, “to make/do”, and “to be born”/“give birth”) commonly occur as CHANGE-OF-STATE predicates, in what constructions and to what extent they function as future copulas. Map 1 gives an overview of the most frequently occurring verbs used to express CHANGE-OF-STATE in various Finnic languages (for the other verbs used in a particular language, see Appendix 1).

The constructions that could be associated with the expression of CHANGE-OF-STATE are presented in Table 2.⁶ Although in most cases Table 2 only contains one example to illustrate the various constructions in the data set, it is important to note that a verb can occur in most (if not all) of the constructions (see Appendix 1).

The unmarked, goal-marked (GM), and SM constructions in (i) to (iii) could be regarded as prototypical expressions of CHANGE-OF-STATE. The constructions in (iv) to (vi) represent instances which convey change in a somewhat broader sense, e.g. by expressing the emergence of something and change of possession.

As follows, the usage of the seven verbs in different Finnic languages is presented in two main sections depending on whether a particular verb is used in the CHANGE-OF-STATE function more widely (i.e.

⁶ Although there were also instances of locative constructions, these were not included in the current study, as commonly they expressed the primary meaning of the corresponding verb, e.g. “being born somewhere”, “remaining somewhere”, “coming somewhere”, etc.



COME, GET, REMAIN/STAY, WILL BE) or its usage is concentrated to particular areas (MAKE/DO, BE BORN/GIVE BIRTH). In addition to CHANGE-OF-STATE, the possible development into FUTURE is discussed. Each section starts with a description of the previous results, followed by the analysis of the examples collected for the purposes of the present study. A total list of constructions that can be associated with a particular verb in a given language is presented in Appendix 1.

4.1 The more widely spread change-of-state predicates

4.1.1 “To come” and “to go”

Both “to come” and “to go” are old motion verbs, which are traced back to the Proto-Finno-Ugric. The equivalents for “to come” are the following: Est. *tulla*, Liv. *tūlda*, Fin. *tulla*, Ingr. *tulla*, Vot. *tulla*, Kar. *tulla*, Lud. *tulda*, and Veps *tulda*. The equivalents for “to go” are Est. *lähe*-, Liv. *lādō*, Fin. *lähteä*, Ingr. *lähtiä*, Vot. *lätä*, Kar. *lähtie*, Lud. *lähtä*, and Veps *l’ähtta*. Although both verbs occur as CHANGE-OF-STATE predicates in the Finnic languages, “to go” appeared to be marginal in all the languages in the data set (typically only 1–2 instances could be attested among 100 examples; see Table 1 and Appendix 1).

As claimed by Huumo and Sivonen (2010), the Finnish *mennä* “to go” can be associated with negative (including abnormal, unexpected) changes, whereas the Finnish *tulla* “to come” tends to occur with positive (including normal) changes; cf. *mennä koomaan* (go:INF coma:ILL) “go into coma” vs *tulla tajuihinsa* (come:INF conscious:PL:ILL:3PX) “regain consciousness”. (This makes the situation similar to the English *go* and *come* described in Section 2.2.) However, the conceptual metaphor GOOD IS HERE, which is at play in the case of *tulla* “to come”, or more precisely, the quality “good” is shown to also capture the meanings “available”, “conscious”, “accessible”, “canonical”, “brought about intentionally by an agent”, etc. (Huumo and Sivonen 2010). As a result, agentivity is said to explain the choice of *tulla* in example (13a) and the lack of agentivity in the choice of *mennä* in (13b).

(13)	a.	<i>Tul-i-ko</i> come-PST.3SG-Q “Did the door get locked?”	<i>ovi</i> door	<i>lukko-on?</i> lock-ILL
	b.	<i>Tankki</i> tank “The tank went empty.” (Finnish; Huumo and Sivonen 2010)	<i>men-i</i> go-PST.3SG	<i>tyhjä-ksi</i> empty-TRA

Whereas the Finnish *tulla* appears to be a common CHANGE-OF-STATE predicate, the Estonian counterpart is used less frequently (Pajusalu and Trägel 2007). Still the Estonian *tulla* is also associated with notions such as “conscious” (e.g. *tulla teadvusele* come:INF conscious:ALL “regain consciousness”), “accessible”, and “available”; it is also used with professions, e.g. (14). In both languages, there are GM (13a) and SM cases (14).

(14)	<i>Tema-st</i> s/he-ELA “S/he will become a researcher.” (Estonian; Pajusalu and Trägel 2007: 304)	<i>tule-b</i> come-3SG	<i>uurija</i> researcher

⁵ The technical work for creating the map was done by Dmitri Kuznetsov; originally, the map is drawn by Timo Rantanen based on Grünthal and Sarhimaa (2004/2012).

The Estonian *minna* “to go”, in turn, in the case of animate referents, is argued to express “involuntary change in mental or physical condition, particularly towards a state of increased agitation” (15); whereas with inanimate referents (e.g. weather conditions), it is claimed to express increase or change in them (16a) (decrease is typically covered by *jääda* “to remain/stay”; cf. 16b; Pajusalu and Tragel 2007).

(15)		<i>Ta</i> s/he “He became red.” (Estonian; Pajusalu and Tragel 2007: 299)	<i>läks</i> go.PST.3SG	<i>punase-ks</i> red-TRA
(16)	a.	<i>Vihm</i> rain “The rain became heavier.”	<i>läks</i> go.PST.3SG	<i>tugeva-ma-ks</i> strong-COMP-TRA
	b.	<i>Vihm</i> rain “The rain became softer.” (Estonian; Pajusalu and Tragel 2007: 300)	<i>jäi</i> remain-PST.3SG	<i>nõrge-ma-ks</i> weak-COMP-TRA

Previous results on Livonian show that neither *tūlda* “to come” nor *lādõ* “to go” commonly function as CHANGE-OF-STATE predicates (Norvik 2014a). The domains listed above are frequently expressed by *iedõ* “to remain/stay”, which can be argued to be the most general CHANGE-OF-STATE predicate in Livonian (see more in Section 4.1.2).

As regards the Finnic languages represented in the data set, only Ingrian and Votic showed considerably more instances of “to come” (see Table 1 and Appendix 1). In both languages, the expression of change was mainly conveyed using the GM construction as in (17). There unmarked constructions conveying CHANGE-OF-STATE were mostly instances of an adjective complement used in a comparative form. In fact, majority of the examples contained an adjective in the complement position; there was only one clear example of a substantive used as the subject complement. The data sets of Ingrian and Votic also contained examples of experiential and existential clauses, where *tulla* was used to express change (e.g. 18). There were no examples of the Ingrian *tulla* used in SM construction or possessive constructions, but this could be attributed to the scarcity of data. As *tulla* was in both languages spread across various constructions to express change, it could be regarded as a common CHANGE-OF-STATE verb in these languages. To compare, the data sets of the other Finnic languages contained only a few examples of “come” in one to two different constructions:

(17)	<i>Jā</i> ice “The ice already became strong.” (Ingrian; Laanest 1966: 156)	<i>jo</i> already	<i>tul-i</i> come-PST.3SG	<i>vahva-ks</i> strong-TRA
(18)	<i>siel</i> there “There it became bad.” (Votic; Ariste 1982: 10)		<i>tul-i</i> come-PST.3SG	<i>paha</i> bad

Instances with “to go” turned out to be infrequent in the case of each language – among 647 instances there were only 12 examples (see Table 1 and Appendix 1). Thus, there is no one Finnic languages in which “to go” would be the most widely spread CHANGE-OF-STATE predicate. In Votic that contained relatively more instances of “to go” (altogether nine instances), further research is needed to determine its more precise usage. The nine examples in the data set expressed negative change (see 19) or change in mental or physical condition towards increased agitation (see 20).

(19)	<i>mie</i> I “I went blind.” (Votic; Ariste 1982: 48)	<i>men-i-n</i> go-PST-1SG	<i>sõkka-ssi</i> blind-TRA
(20)	<i>hukko</i> old_man “The old man went mad.” (Votic; Ariste 1982: 16)	<i>men-i</i> go-PST.3SG	<i>hullu-ssi</i> mad-TRA

The data set also contained instances like (21) and (22) that do not express change in the prototypical sense but rather reveal something about the origins of the development. For instance, example (21) presents the source but does not say that something turns into something else; example (22) can be seen as an extension of prototypical motion (*eht* “evening” is not an animate agent), but again, it is not possible to apply the schema X located in state 1 → X located in state 2 (cf. Section 1). Thus, both usages seem to be close to the source meaning of the construction.

(21)	<i>Maima-z</i> whitebait-ELA “One gets good soup out of whitebaits.” (Ludic; Kujola 1944: 223)	<i>lähtöu</i> go:3SG	<i>rok</i> soup	<i>hüvä</i> good
(22)		<i>Tul'-i</i> come-PST.3SG “The evening arrived.” (Veps; NVM 1935: 19)		<i>eht</i> evening

4.1.2 “To remain/stay”

The predicate associated with the meaning “to remain/stay” is present in all the Finnic languages: Est. *jääda*, Liv. *iedō*, Fin. *jääda*, Vot. *jäävvä*, Ingr. *jäävvä*, Kar. *jeähä*, Lud. *d'iadä*, and Veps *jädä*. They are usually traced back to the Proto-Finnic root **jä-*, which is considered to be a loan from Proto-Indo-Iranian (ETY).

Previous research on Estonian, Livonian, and Finnish demonstrates that while the Finnish *jääda* is the least productive in the sense of expressing change (Huomo 2007: 89, Tommola 1995: 126), the Livonian *iedō* shows the widest range of usages (Norvik and Prillop 2017). Estonian *jääda*, in turn, appears to display certain restrictions: it is often associated with the expression of negative change, such as falling ill (23a); to convey a positive change (e.g. getting healthy), another verb has to be used – *saada* “‘get; become” (23b; Pajusalu and Tragel 2007). Norvik and Prillop (2017) show that instances of negative change may also be subsumed under the terms “difference from the majority”, “unexpectedness,” or the like:

(23)	a.	<i>laps</i> child “The child will fall ill.”	<i>jää-b</i> remain-3SG	<i>haige-ks</i> ill-TRA
	b.	<i>laps</i> child “The child will get well.” (Estonian; personal knowledge)	<i>saa-b</i> get-3SG	<i>terve-ks</i> healthy-TRA

Different from Estonian, the Livonian *iedō* cannot be explained in terms of negative versus positive change as *iedō* is used for both; cf. examples (24a) and (24b). In addition, *iedō* can also convey emergence of something, change in physical or mental conditions (25), where Estonian or Votic would use the verb meaning “to go” (see examples (15) and (20), respectively, in Section 4.1.1). Although according to the Livonian–Estonian–Latvian dictionary (Viitso and Ernštreits 2012), the verb *lā’dō* “to go” could be used in Livonian as well (e.g. *ma’rrō lā’dō* “become agitated”), *iedō* in any case proves to convey CHANGE-OF-STATE in the widest sense in a variety of constructions (further examples and discussion available in Norvik and Prillop 2017).

(24)	a.	<i>lāpš</i> child “The child will get ill.” (Mägiste 1964: 14)	<i>ie-b</i> remain-3SG	<i>rujā-ks</i> ill-TRA
	b.	<i>ta kakš nādīlt vō’l ma’ggōn,</i> <i>ta</i> s/he “It was only after s/he had been lying down for two weeks before s/he became well.” (Mägiste 1964: 14)	<i>ei</i> remain.3SG	<i>tierrō-ks</i> healthy-TRA
(25)		<i>se</i> this “The dog became agitated.” Livonian (Setälä 1953: 116)	<i>pi’ñ</i> dog remain-APP	<i>ma’rrō</i> agitation.ILL

The data sets of other Finnic languages/language varieties (except Lutsi and Votic) tended to contain only some instances of “to stay/remain”-verbs per 100 examples (Table 1 and Appendix 1). The few instances that occurred in the data set could primarily be associated with negative change, such as becoming poor (ex. 27). In addition, the corresponding instances often expressed remaining in a previous state (ex. 26), or remaining in a state after a particular entity had emerged (ex. 28). (Norvik and Prillop 2017 discuss similar examples in Estonian and Livonian.)

(26)	<i>d’ä-i-n</i> remain-PST-1SG “I became a poor man.” (Ludic; Kujola 1944: 31)	<i>miñä</i> I	<i>tühd’</i> poor	<i>miež</i> man
(27)		<i>jā-kā</i> remain-IMP.2PL “Stay well!” (Ingrian; Laanest 1966)		<i>tervehe-ks</i> healthy-TRA
(28)	<i>leivä-D</i> bread-PL “Breads turned out cloggy.” (Ingrian; Nirvi 1971: 117)	<i>jäi-vān</i> remain-PST.3PL		<i>nädi-ksE</i> cloggy-TRA

To compare, in Estonian but also in Finnish, remaining in a state after an emergence of a particular entity may also be expressed using the verb “to come” (Erelt 2005: 23, VISK § 904). The data set contained one such example in Votic (29). Dahl (2000: 353) has called the respective use the “turn out” use, the motivation of which becomes clear also from the translations of examples (28) and (29) into English:

(29)	<i>leivä-t</i> bread-PL “The breads turned out bad.” (Votic; Ariste 1962: 65)	<i>tul-i-vat</i> come-PST-3PL	<i>paha-d</i> bad-PL
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As regards the examples in the data set, only Lutsi *jääda* and Votic *jäävvä* had considerably more occurrences. Although they mainly conveyed CHANGE-OF-STATE, neither of them revealed such a general usage as the Livonian *iedō*. Primarily they could be associated with negative change (e.g. getting old, blind, ill, drunk, etc.) or with a situation becoming more passive (e.g. becoming silent; both usages are listed by Pajusalu and Tragel 2007: 297 for the Standard Estonian *jääda*). However, it is of interest that the Lutsi data set contained a few instances of positive change. In the case of example (30), it becomes clear from the context that the predicate with *jääda* is used to denote getting rich. Thus, here, the usage of Lutsi *jääda* shows parallels with the usage of the Livonian *iedō* rather than the Estonian *jääda*. In Estonian, to denote getting rich, the verb *saada* “to get; to become” should be used instead; using *jääda* could be possible only if one would like to express continuation of the previous state, i.e. being rich and remaining rich. As the Latvian *palikt* “to remain/stay” also shows a wide range of uses in the spoken language and can be held responsible for the broad usage of the corresponding verb in Livonian (Norvik and Prillop 2017), such broader usage of Lutsi *jääda* confirms the claims about the possible influence of Latvian:

(30)	<i>kašvi</i> grow.PST.3SG <i>timä</i> s/he	<i>peremehe-t</i> master-ADE <i>jä-i</i> remain-PST.3SG	<i>leibä</i> bread.PRT <i>jo</i> PTCL	<i>pal'lo</i> much <i>paha</i> bad	/.../ <i>rikka-ss</i> rich-TRA
“The master got [lit. grew] a lot of bread /.../ he became very rich.” (Lutsi, EM IX: 158)					

Further proof about the extension of the verb meaning “to remain/stay” in a language contact situation comes from Harju-Madise, a subdialect of Western Estonian, which has been under the Swedish influence. It is possible that the broader usages of the Estonian *jääda* can be attributed to the contact with Swedish (Evi Juhkam, personal communication, March 22, 2019). For instance, the Harju-Madise example (31) contains *jääda* to express change, whereas in literary Estonian another verb (e.g. *muutuma* “to change”) would be used in this case. In Swedish, the corresponding verb is *bli*, which in addition to change also conveys future (Dahl 2000). Such development cannot be detected in the Finnic languages, even in Livonian, where *iedō* “to remain/stay” is the most general CHANGE-OF-STATE verb. Most probably, the reason is that in Livonian there is already another future copula *līdō* (see Section 4.1.4).

(31)	<i>kui</i> when <i>ta</i> s/he.GEN	<i>sa</i> you <i>suu</i> mouth	<i>rauwade-st</i> bridoons.PL-ELA <i>jää-b</i> remain-3SG	<i>tömma-d</i> pull-2SG <i>öma-ks</i> sensitive-TRA
“If you pull from the bridons his/her [horse’s] mouth will become sensitive.” (Harju-Madise, West Estonian; EDC)				

The instances conveying CHANGE-OF-STATE in the data set tended to be GM. Both in Lutsi and in Ludic, there was one unmarked example (for Ludic, see Ludic e.g. 26). In Lutsi, the corresponding example was an instance of a complement used in a diminutive form (*bednakene* “poor”). For drawing further conclusions, however, one needs additional examples.

4.1.3 “To get; to become”

A verb with the meaning “to get” can be found in all the Finnic languages: Est. *saada*, Liv. *sõdõ*, Fin. *saada*, Ingr. *sāvva*, Vot. *sāta*, Kar. *soaha*, Lud. *suada*, and Veps *sada*. They are traced back to the Proto-Uralic root **saye-*; the original meaning is usually claimed to be that of “to come” (ETY, Häkkinen 2005). This means that in the Finnic languages there are two CHANGE-OF-STATE predicates, which originally mean “to come” (see also Section 4.1.1).

As regards the Finnic languages, the verb “to get; to become” can be found to express CHANGE-OF-STATE primarily in the southern Finnic languages. The Estonian *saada* is usually described as a commonly used CHANGE-OF-STATE predicate; it is primarily associated with desired states, positive developments, brought about by intentional action (32; Pajusalu and Trägel 2007, Trägel and Habicht 2012). Similar notions are also associated with the Finnish *tulla* “to come” (see Section 4.1.1). The fact that Estonian *saada* is also found to express non-evaluative meaning or neither desired outcome nor intentional action (ex. 33; *ibid.*) could point to the generalization of the predicate.

(32)	<i>Tekst</i> text “The text will be ready.” (Estonian; Trägel and Habicht 2012: 1384)	<i>saa-b</i> get-3SG	<i>valmis</i> ready
(33)	<i>Lapse-d</i> child-PL “The children got wet and dirty.” (Pajusalu and Trägel 2007: 303)	<i>sa-i-d</i> get-PST-3PL	<i>märja-ks</i> wet-TRA <i>ja</i> and <i>musta-ks</i> dirty-TRA

The Livonian *sõdõ* is also shown to function as a CHANGE-OF-STATE predicate, however, its usage seems to be associated with literary texts rather than with clear semantic restrictions (a similar case was introduced for Czech in Section 2.2). Whereas in Bible texts, the Livonian *sõdõ* appears to be the main means used to convey CHANGE-OF-STATE, in colloquial texts the verb *iedõ* “to stay/remain” is common (see Norvik 2014a). This can be argued to mirror the Latvian model; as in literary Latvian, the verb *kļūt* is typically used to mean “to become” (roughly corresponds to Livonian *sõdõ*), whereas in colloquial Latvian, the verb *palikt* “to stay/remain” tends to be used instead (roughly corresponds to the respective verb in Livonian – *iedõ*) (Norvik and Prillop 2017). Still, one can notice differences in the underlying constructions. Latvian *kļūt* takes the nominative case with adjectival complements, whereas the PP with *par* is used with substantives denoting professions, e.g. *kļūt par ārstu* “to become a doctor” (Kalnača 2013: 638). In Livonian, in turn, the GM construction is used in both cases; see (34) and (35). However, the Livonian GM constructions containing a substantive reveal a clear case of Latvian influence: they contain the Latvian prefix *pa* although the translative marker *-ks* already expresses change (see Norvik and Prillop 2017; for Latvian *par*, see also Kalnača 2013: 638).

(34)	<i>Võ'l</i> witch “The witch became angry.” (Livonian; Setälä 1953: 178)	<i>sa-i</i> get-PST.3SG	<i>kõzizõ-ks</i> angry-TRA
(35)	<i>nei'</i> so “This way the ox became a human being.” (Livonian; Setälä 1953: 114)	<i>sa-i</i> get-PST.3SG	<i>se</i> this <i>ārga</i> ox <i>pa rištīngõ-ks</i> PP human-TRA

The data sets compiled for the purposes of the present study revealed a wide range of uses for Lutsi *saada* – about three fourth of the instances collected from Lutsi texts were examples of *saada* in various constructions (see Appendix 1). Moreover, in addition to the expression of CHANGE-OF-STATE (36), there were instances of *saada* functioning as a future copula, i.e. cases where the reading “to become” seemed to remain in the background (37). It is possible that here we are dealing with an internal development as the Estonian *saada* does not occur alone to express future (it also requires the “be”-verb in the infinitive form, i.e. *saab olema* “will be”) and the respective verb in Latvian (*kļūt*) does not show further development into a future copula. It is, however, possible that the Latvian future copula *būt* “will be” has played a role in this development.

(36)	<i>jo</i> ² already “Now they became big acquaintances.” (Lutsi; EM IX: 146)	<i>sa-i</i> get-PST.3SG	<i>jo</i> ² PTCL	<i>suur</i> big	<i>tutva</i> acquaintant
(37)	<i>su-л</i> you-ALL “You will have a good life.” (Lutsi; EM IX: 125)	<i>sâ</i> get	<i>hüä</i> good	<i>jelo</i> life	

Whereas in the case of Estonian and Livonian one mainly encounters GM constructions (33) or SM constructions (Pajusalu and Tragel 2007, Norvik 2014a); in Lutsi, the unmarked cases also turned out to be common (see 36 and 37). It may be argued that the unmarked constructions also license the future meaning more easily.

As regards other Finnic languages, the Ingrian *saavva* and Votic *saata* also occurred as CHANGE-OF-STATE predicates (see 38). As in Ingrian, *tulla* “to come” turned out to be quite frequent among 100 examples in Ingrian (*saavva* had 17 occurrences and *tulla* had 9); further research is needed to determine the differences between them. Currently, they are both indicated as common change-of-state devices in the Votic- and Ingrian-speaking areas (see Map 1). In any case, from the part of “to come”, Ingrian and Votic show more similarities with Finnish, whereas from the part of “to get; to become” – with Estonian. The Finnish *saada*-verb even appears to be absent in BECOME-constructions, the verb *tulla* or other expressions of CHANGE-OF-STATE are used instead (see Pajusalu 1994: 91; Jokela and Nummila 2015); instances like (39) are regarded as archaic/poetic (see KS). Such examples of *saada* are closer to the original meaning “to come” (see etymological note above). The connection with motion is also visible in the Finnish verb *saapu/a* “arrive” (and its Estonian counterpart *saabu/da*) derived from *saa/da* (ETY, Häkkinen 2005: 1097). For a similar use of *tulla* “to come”, see example (22) in Section 4.1.1.

(38)	<i>sa-i</i> get-PST.3SG “S/he got angry at us.” (Votic; VKS)	<i>vihaizõ-ssi</i> angry-TRA	<i>med'd'e</i> we.GEN	<i>pääle</i> on
(39)	<i>Kun</i> when “When the morning comes” (Finnish, KS)	<i>aamu</i> morning	<i>saa</i> will_be.3SG	

Among 100 examples there were no instances of Ludic *suada*, Veps *sada*, and Karelian *soaha* used as CHANGE-OF-STATE predicates.

4.1.4 “Will be”

In all the Finnic languages, there are at least traces of the futurate/modal verb, which goes back to Proto-Finno-Ugric. The cognate forms in the Finnic languages are the following: Est. *leeda*, Liv. *lidō*, Fin. *lienee*, Ingr. *leenöö*, Vot. *leevvä*, Kar. *lie(nöy)*, Lud. *liettä*, and Veps *lindä* (ETY, SSA). Whereas only the Old Literary Estonian and Insular dialects reveal examples of Estonian *leeda*, and the Finnish *lienee* is mainly found in the modal meaning; in the other Finnic languages the cognate verb can even appear as a future copula; see Veps example in (40; for more information, see Norvik 2015).

(40)	<i>m'õ</i> we “Then we will be without an animal.” (Veps; OVR 1969: 74)	<i>l'ine-mai</i> will_be-1PL	<i>šid</i> then	<i>zivata-ta</i> animal-ABE
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It is highly probable that originally we are dealing with a verb which can be subsumed under the concept BECOME rather than WILL BE. There are clear indications of the CHANGE-OF-STATE usage even in few instances of Livonian *lidō* used in a participle construction clearly expressing BECOMING (Norvik 2015: 52–3). To compare, the Ludic and Karelian cognates occurring in the data set were commonly used to CHANGE-OF-STATE; differently from Livonian, they also have the past tense form, which can be first and foremost associated with change, as in (41).

(41)	<i>mužikka</i> man “The man became glad.” (Valdai Karelian; Palmeos 1962: 185)	<i>lieñi</i> will_be.PST.3SG	<i>road'i</i> glad
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The data set contained 213 instances of WILL BE, which made it the most frequently occurring verb in the data set (the next most frequent verb was BE BORN/GIVE BIRTH with 139 instances). However, 90 of these instances were noted down from Valdai Karelian. These were followed by 48 examples in Ludic. In Votic, Veps, and Ingrian, there were fewer examples, which all occurred in the present tense.

Especially in Valdai Karelian and Northern Ludic, the unmarked constructions turned out to be the commonest although there were some instances of SM or GM constructions. As example (41) shows, the unmarked construction was possible even in cases that clearly marked CHANGE-OF-STATE. Thus, although one would want to associate goal-marking with change, it is not necessarily the case, especially in the easternmost Finnic languages.

Valdai Karelian and Northern Ludic dialect as well as the northernmost areas of Central Ludic stood out as next to clear instances of BECOMING (41), there were cases of BEING (42–43), i.e. Ludic *liettä* and Valdai Karelian *lie(nöy)* also functioned as future copulas (for Ludic *liettä*, see also Kehayov et al. 2013). The distinction between the two readings could mostly be made relying on the broader context; however, in the case of future time reference it was not always clear whether the primary meaning is that of “to become” or “to be (in the future)”. The fact that these two meanings intertwine has been already stressed before (e.g. Dahl 2000: 351). The Ingrian, Votic, and Veps examples, which only occurred in the present tense form, confirmed this claim: it was often hard to tell the difference between BECOME and BE as often both seemed to be relevant (44). However, if to compare the Ingrian and Votic *tulla* “to come” used with reference to future, the focus of *tulla* tends to be on BECOMING (see examples 17 and 18 in Section 4.1.1); whereas with *leevvä/leenöö*, it is on BEING (44). In addition, the suffix *-ne-* may be responsible for the accompanying modal meanings, as the suffix is a potential suffix conveying epistemic modal meaning (Laanest 1975: 155). However, as has been shown, the presence of *-ne-* does not necessarily evoke a modal meaning (see discussion in Norvik 2013).

(42)	<i>i</i> and “And we will be unhappy forever.” (Northern Ludic; Ojansuu et al. 1934: 40)	<i>liene-m</i> will_be-1PL	<i>müö</i> we	<i>ozatomma-d</i> unhappy-PL	<i>igakš</i> forever
(43)	<i>eruo-n</i> , divorce-1SG “I will get divorced, will have a small family.” Valdai Karelian (Palmeos 1962: 82)	<i>liew</i> will_be.3SG	<i>pieñi</i> small		<i>p'eřeh'</i> family
(44)	<i>i</i> and “And I will be(come) like you.” (Votic; Ariste 1962: 17)	<i>liene-n</i> will_be-1SG	<i>mie</i> I	<i>mokoma</i> such	<i>niku</i> like <i>työ</i> you

4.2 Change-of-state predicates restricted to particular areas

In this section, I discuss predicates that appear as CHANGE-OF-STATE predicates only in restricted areas. Such predicates are the Veps *t'ehtakse* “to make/do” and Livvi-Karelian *rotie(kseh)/Ludic rodida/rodizetta* “to be born; to give birth”.

4.2.1 “To make/do”

In Veps, the verb *t'ehtakse*, which is a reflexive form of the verb *t'ehda* “to make/do”, appeared to be a general CHANGE-OF-STATE predicate (45–46). It is described as a CHANGE-OF-STATE verb also by Grünthal (2015: 146–147). Among the 56 instances of *t'ehtakse*, the unmarked construction (45) turned out to be the commonest (20 examples); there were only three instances of GM and two instances of SM constructions (46 and 47, respectively). The examples of GM constructions in the data set were all instances of substantives in the complement position (e.g. ex. 46).

(45)	<i>vil</i> grain “The grain will be beautiful.” (Veps; NVM 1935: 24)	<i>t'ege-se</i> make-REFL.3SG		<i>tšoma</i> beautiful
(46)	<i>lopei</i> frog “The frog turned into a girl.” (Veps; NVM 1935: 184)	<i>t'eg-i-he</i> make-PST-REFL.3SG		<i>neitše-ks</i> girl-TRA
(47)	<i>nügüt</i> now “Now from this beggar became such a rich (man).” (Veps; Kettunen 1920: 56)	<i>t'eg-he</i> make-PST.REFL.3SG	<i>mugõne</i> such	<i>bohat</i> rich <i>pakitšeia-spä</i> beggar-ELA

The Veps *t'ehtakse* could be regarded as a general CHANGE-OF-STATE predicate as in addition to the examples mentioned above, it also appeared in the existential, experiential, and possessive constructions (see Appendix 1). These occurrences could be associated with change in a physical/physiological state (ex. 48, which is an instance of an experiential construction) or in the general state of affairs (ex. 49, which is an example of a possessive construction).

(48)	<i>Kondja-le</i> bear-ALL “The bear felt sorry for the old (one).” (Veps; Norvik 2014b)	<i>žal</i> sorry	<i>t'eg-he</i> make-PST.REFL.3SG	<i>vanhud</i> old.PRT		
(49)	<i>sit</i> then “Then we were already left with three cows.” (Veps, NVM 1935: 34)	<i>teg-he</i> make.PST-REFL.3SG	<i>mei-le</i> we-ALL	<i>jo</i> already	<i>koulme</i> three	<i>lehmas-t</i> COW-PRT

The Veps *t'ehtakse* most probably reveals a case of pattern-borrowing (PAT-borrowing) as in Russian the corresponding reflexive verb (s)*delat'sja* “to make/do” can also be found as a CHANGE-OF-STATE verb in various constructions; see the GM construction in (50) (cf. 45) and the experiential construction in (51) (cf. 48). According to Sakel (2007: 15), PAT-borrowing has to do with borrowing the “organization, distribution and mapping of grammatical or semantic meaning, while the form itself is not borrowed”. The Veps case is an instance of borrowing the semantic meaning. To compare, whereas the Veps *t'ehtakse* tends to occur in unmarked constructions, the various examples of the Russian (s)*delat'sja* in Russian–Estonian and Estonian–Russian dictionaries (VES, EVS) did not contain any unmarked constructions; the typical construction appeared to be the GM construction as in example (50).

(50)	<i>razgovor</i> conversation “The conversation became boring.” (Russian; VES)	<i>sdelalsja</i> make:PST.REFL.N	<i>skučnym</i> boring:INS
(51)	<i>emu</i> he:DAT “He got sick.” (Russian; VES)	<i>sdelalos'</i> make:PST.REFL.N	<i>ploho</i> sick

Although the Veps *t'ehtakse* was commonly used to express CHANGE-OF-STATE, there were no instances that would reveal its further development into the future copula. In fact, in the data set *t'ehtakse* mainly appeared in the past tense (there were only two instances containing a present tense among 56 examples). It is most probably because Veps already has a future copula – *lindä* “will be”, which may also show instances of intertwining of BEING and BECOMING. This makes the Veps situation similar to Livonian, where *īedō* “to stay/remain” only occurs as the general CHANGE-OF-STATE predicate but no further development into future can be detected as there is the future copula *līdō* “will be”, which is a cognate to Veps *lindä* (see more in Section 4.1.4).

Among the examples collected from the other Finnic languages, there were hardly any examples of a “to make/do”-verb used to express CHANGE-OF-STATE. Still one such example seemed to occur in Lutsi (52). Differently from Veps, the Lutsi *tetä*² is not a reflexive verb. But as it appears, the uses of non-reflexive can also be attested in other languages; e.g. in Texas English, *make* may be used to convey “to become”: *She made a teacher* = “She became a teacher” (Clancy 2010: 35).

(52)	<i>tekk'</i> make.PST.3SG “[s/he] got angry” (Lutsi; EM IX: 143)	<i>kuřa-st</i> angry-TRA
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4.2.2 “To be born; to give birth”

Predicates meaning “to give birth”/“to be born” were attested to express CHANGE-OF-STATE in Livvi-Karelian (53) and Ludic (54). Differently from Veps *t'ehtakse*, which is a native verb employed to express CHANGE-OF-STATE as in Russian (i.e. a case of PAT-borrowing), the Ludic *rotie(kseh)* and Livvi-Karelian *rodida/rozdizetta* are instances of matter-borrowing (MAT-borrowing) as the “material” is taken from Russian: < *rodit'sja* “to be born”, *rodit'* “to give birth” (for MAT-borrowing, see Sakel 2007). Both the non-reflexive and the reflexive forms were used (cf. the reflexive uses of the Veps *t'ehtakse* in Section 4.2.1).

(53)	<i>vezi</i> water “Water will become red.” (Livvi-Karelian; NKK 1994: 290)	<i>roih</i> be_born.3SG	<i>ruskei</i> red
(54)	<i>hää</i> it “It got totally empty.” (Central Ludic; Kujola 1944: 362)	<i>rod'i-he</i> be_born.PST-REFL.3SG	<i>hüviñ</i> very <i>t'ühjä-kši</i> empty-TRA

The Ludic *rodida/rodizetta* as well as Livvi-Karelian *rotie(kseh)* occurred in various constructions to convey CHANGE-OF-STATE. Most typically, change was expressed by unmarked forms; there were only a few instances of the GM construction (54) (this was true also for the Veps *t'ehtakse*; see Section 4.2.1). There were also examples conveying change in physical/physiological state (55), and the emergence of something (56). The Ludic data set did not contain any examples only of SM construction, which does not necessarily mean that the SM construction is impossible. However, as regards Ludic, *rodida/rodizetta* appeared to be as a general CHANGE-OF-STATE predicate only in Central Ludic; in Northern Ludic, there were only few examples of *rodida/rodizetta* as *liettä* “will be” is used instead (see Appendix 1).

(55)	<i>hännle</i> s/he:ALL “It became hard for him/her.” (Central Ludic; Kujola 1944: 361)	<i>rod'i</i> be_born.PST.3SG	<i>d'üged</i> hard
(56)	<i>pahai</i> bad “The pie turned out bad, right?” (Central Ludic; Norvik 2012)	<i>pīrai</i> pie <i>rod'i</i> , be_born.PST.3SG	<i>ka?</i> yes

In Central Ludic as well as in Livvi-Karelian, one can observe further development into the future copula (for Ludic, see also Kehayov et al. 2013). Namely, there are instances such as (57) and (58) that primarily convey BEING with reference to the future rather than BECOMING. Such further development is probably licenced by the fact that *liettä/lie(nöy)* “will be” do not function as primary future copulas in these areas. The Central Ludic *liettä* had only 14 occurrences of which 7 examples were instances of an existential clause, which could be rather associated with the emergence of something rather than prototypical CHANGE-OF-STATE usage. Thus, the usage of the Central Ludic *rodida/rodizetta* and Livvi-Karelian *rotie(kseh)* “be born/give birth” can be argued to reveal a case of renewal/replacement as they seem to be used in the same functions as the native verbs *liettä* and *lie(nöy)* “will be” (for renewal/replacement, see also Section 2.1).

(57)	<i>rodi-memmo</i> be_born-REFL.1PL “We will be at home, come!” (Central Ludic; Norvik 2012)		<i>kod'i-s</i> home-INE	<i>tun-gat</i> come-IMP.2PL	
(58)	<i>sügüsü-l</i> autumn-ADE “In the autumn, they will have golden wedding.” (Central Ludic; Norvik 2012)	<i>hei-le</i> they-ALL	<i>rodi</i> be_born.3SG	<i>kuldane</i> golden	<i>svadba</i> wedding

In the North Russian dialects, the respective Russian verbs *rodit'*/*rodit'sja* are attested to mean “begin”, “become”, “appear”, “take place”, etc. (SRNG). The fact that we are dealing with an areal-specific phenomenon found further support from other Karelian dialects. For instance, the Valdai Karelian data set contained only a few instances of *rotie(kseh)* that all occurred in an existential construction to express change in weather conditions (59). As the verbs studied in this article were all used in such function (see also example 17 for “to come” and example 39 for “to get”), it is possible that such usage represents an initial stage on the path towards “real” CHANGE-OF-STATE predicate:

(59)	rod'ih be_born.PST.3SG “It became dark.” (Valdai Karelian; Palmeos 1962: 160)	pimie dark
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5 Conclusion

The present article studied the expression of CHANGE-OF-STATE in the Finnic languages. The following languages/language varieties were discussed: Karelian (represented by Valdai Karelian and Livvi-Karelian), Lutsi (a South Estonian language island in Latvia), Veps, Ludic, Ingrian, Votic, Livonian, Estonian, and Finnish. As regards Livonian, Estonian, and Finnish, the results of previous studies were used, whereas for the other varieties named above the linguistic data to be analysed were mainly collected from various collections of text. The verbs that were regarded as possible candidates of CHANGE-OF-STATE predicates could be associated with the following concepts: COME, GO, REMAIN/STAY, GET, WILL BE, MAKE/DO, and BE BORN/GIVE BIRTH. For each language, the set of verbs to be studied was determined by reading collections of text.

The main objective of the article was to give a general picture of the expression of CHANGE-OF-STATE in the Finnic languages. The results showed that although the set of verbs used for conveying CHANGE in the Finnic languages is similar, the languages differ in terms of what are the most common CHANGE-OF-STATE predicates. As appeared, in Livonian the verb *iedō* “to stay/remain” is the most general CHANGE-OF-STATE predicate, in Valdai Karelian we find *lie(nöy)* “will be”, in Veps *t'ehtakse* “to make/do”, in Central Ludic *rodida/rodizetta*, and in Livvi-Karelian *rotie(kseh)* “to be born/give birth”. Whereas cross linguistically the verbs meaning “to come” and “to go” turn out to be the commonest sources of CHANGE-OF-STATE predicates, in the Finnic languages “to come” was used as the main means in two languages – Votic and Ingrian, but none of the Finnic languages contained “to go” as the main means of expressing change.

The study also considered the role of language contacts in the development of CHANGE-OF-STATE predicates. Among these predicates there were cases of MAT- and PAT-borrowings. The clearest instance of MAT-borrowing was the Central Ludic *rodida/rodizetta*/Livvi-Karelian *rotie(kseh)*, and the PAT-borrowing was represented by Veps *t'ehtakse*. Although in some other cases one can also suspect a foreign influence (e.g. Latvian *palikt* has evidently had influence on the Livonian *iedō*), the extent of influence is occasionally somewhat hard to determine. At the same time, the Central Ludic *rodida/rodizetta* and Livvi-Karelian *rotie(kseh)* could also be

regarded as cases of renewal/replacement. On the one hand, this is supported by the fact that the verb is a clear borrowing from Russian. But on the other hand, this becomes evident from the fact that the Northern Ludic *liettä* “will be” (also used in some northernmost villages of Central Ludic) is found in the same constructions and functions as the Central Ludic *rodida/rodizetta* and Livvi-Karelian *rotie(kseh)*. Thus, there is reason to claim that the new means (BE BORN/ GIVE BIRTH) have pushed out the old means (WILL BE).

Comparison of the underlying constructions showed that the GM construction is a typical CHANGE-OF-STATE construction. However, there are differences to what extent it is used. For instance, in the case of Livonian *iedō* “stay; remain” the expression of CHANGE-OF-STATE could be associated with marking the goal. This also applies to Ingrian, Votic, and Lutsi CHANGE-OF-STATE predicates, although there is some variation. In the case of Central Ludic *rodida/rodizetta* and Livvi-Karelian *rotie(kseh)* “be born/give birth”, Veps *t’ehtakse* “make/do”, North Ludic *liettä*, and Valdai Karelian *lie(nöy)*, in turn, the unmarked construction turned out to be the commonest when expressing CHANGE-OF-STATE. Thus, the more east we move, the less GM marking we get with the expression of change. As was argued, this does not follow the Russian model, as in Russian the expression of change can be associated primarily with GM constructions.

The analysis of the predicates also revealed instances of the expected grammaticalization path CHANGE-OF-STATE > FUTURE. Such further development could be attested in the case of Valdai Karelian *lie(nöy)*, North Ludic *liettä*, Veps *lindä* (these three are cognate verbs, which originally could be most probably associated with BECOMING rather than BEING), Livvi-Karelian *rotie(kseh)*, Central Ludic *rodida/rodizetta*, and Lutsi *saavva*. As argued in this article, the unmarked constructions could license such a development. Still there were cases of a verb appearing as a general CHANGE-OF-STATE predicate in unmarked constructions without any indications of further development into the future copula. This was the case with Veps *t’ehtakse* and Livonian *iedō*. This was explained as being conditioned by the fact that both languages already contain a future copula – Veps uses *lindä* and Livonian *lidō*.

The results of the present analysis enabled to give a general picture of the most commonly used CHANGE-OF-STATE predicates in the Finnic languages and enrich understanding of such a fascinating phenomenon as CHANGE-OF-STATE. It remains the task for future research, i.e. to go more in-depth language-wise and discuss in detail the semantic differences between the various means of the expression of CHANGE-OF-STATE.

Abbreviations

1, 2, 3	person	m	masculine
abe	abessive	n	neutrum
ade	adessive	pl	plural
all	allative	prt	partitive
app	active past participle	pst	past
comp	comparative	ptcl	particle
dat	dative	px	possessive suffix
Est.	Estonian	ins	instrumental
Fin.	Finnish	refl	reflexive
gen	genitive	ptcl	particle
ela	elative	sg	singular
ine	inessive	tra	translative
ill	illative	Vot.	Votic
imp	imperative		
Ingr.	Ingrian		
ins	instrumental		
Kar.	Karelian		
loc	locative		

Appendix 1: Distribution of the constructions in the data set

	COME	GO	REMAIN/ STAY	GET	WILL BE	MAKE/DO	BE BORN/ GIVE BIRTH	
Lutsi Estonian								100
SM				6				6
Unmarked			1	31				32
GM (Tra)			11	5		1		17
GM (Ess)								
Adv		2	1	2				5
Existential	1		5	21				27
Possessive				6				6
Experiential				7				7
Votic								100
SM	2				1			3
Unmarked	7				10			17
GM (Tra)	9	7	4	2	1			23
GM (Ess)					2			2
Adv	2		5		2			9
Existential	15		4		14			33
Possessive	1		5		2			8
Experiential	5							5
Ingrian								47
SM								
Unmarked	5				1			6
GM (Tra)	7		5	7				19
GM (Ess)								
Adv	1		1	1	2			5
Existential	2			1	7			10
Possessive			1		4			5
Experiential	2							2
Veps								100
SM					3	2		5
Unmarked					3	20		23
GM (Tra)		2	3			3		8
GM (Ess)					1			1
Adv			1		3	1		5
Existential	9			1	10	14		33
Possessive			5		3	7		15
Experiential					1	9		10

Ludic (North/Centr)								100
SM	2/0	1/0	1/0		2/0			6
Unmarked					11/2		0/8	21
GM (Tra)	1/0				1/0		1/1	4
GM (Ess)								
Adv					0/1		0/1	2
Existential					13/7		0/20	40
Possessive					1/3		1/8	13
Experiential					6/1		6/1	14
Livvi-Karelian								100
SM	2						5	7
Unmarked					2		25	27
GM (Tra)	1		2				8	11
GM (Ess)								
Adv					1		5	6
Existential					2		22	24
Possessive			2				16	18
Experiential							7	7
Valdai Karelian								100
SM					1			1
Unmarked			1		35		3	39
GM (Tra)			1					1
GM (Ess)					1			1
Adv			1		9			10
Existential			1		23		2	26
Possessive					8			8
Experiential					1			1
								647

References

- Ariste, Paul. 1962. *Vadja muinasjutte*. Tallinn: Eesti NSV Teaduste Akadeemia.
- Ariste, Paul. 1982. *Vadja pajatusi*. Tallinn: Valgus.
- Bickel, Balthasar. 1992. "The marking of future time reference in Züritüütsch." In *Future time reference in European languages (Eurotyp Working Paper Series VI – Tense and Aspect 2)*, ed. Östen Dahl, Casper de Groot, Hannu Tammola, 73–84. Stockholm: Dept. of Linguistics, University of Stockholm.
- Bonnefille, Stéphanie M. 2006. "Constructions with get: how to get the picture without getting confused." *Annual Review of Cognitive Linguistics* 4(1): 21–37.
- Clancy, Steven J. 2010. *The Chain of Being and Having in Slavic (Studies in Language Companion Series 122)*. Philadelphia/Amsterdam: John Benjamins.
- Dahl, Östen. 2000. "Verbs of becoming as future copulas." In *Tense and Aspect in the Languages of Europe*, ed. Östen Dahl, 351–64. Berlin/New York: Mouton de Gruyter.
- EDC = Estonian Dialect Corpus, <http://www.murre.ut.ee> (30.09.2018).
- EM IX = Mets, Mari, Anu Haak, Iva Triin, Grethe Juhkason, Mervi Kalmus, Miina Norvik, Karl Pajusalu, Pire Teras, Tuuli Tuisk, and Lembit Vaba. 2014. *Lõuna-eesti keelesaarte tekstid*. Tallinn: Eesti Keele Sihtasutus.
- Erelt, Mati. 2005. "Source-marking resultatives in Estonian." *Linguistica Uralica* 41(1): 20–9.
- Erelt, Mati, and Helle Metslang. 2003. "Case marking of the predicative in Estonian." *Linguistica Uralica* 39(3), 254–66.
- ETY = Eesti etimoloogia sõnaraamat, <http://www.eki.ee/dict/ety/> (30.09.2018).

- EVS = Eesti-vene sõnaraamat, <https://www.eki.ee/dict/evs/> (30.09.2018).
- Geist, Ljudmila, and Björn Rothstein. 2007. "Einleitung: Kopulaverben und Kopulasätze." In *Kopulaverben und Kopulasätze. Intersprachliche und intrasprachliche Aspekte* (Linguistische Arbeiten 512), ed. Ljudmila Geist and Björn Rothstein Geist, 1–21. Tübingen: Niemeyer.
- Grünthal, Riho. 2015. *Vepsän kielioppi* (Apuneuvoja suomalais-ugrilaisen kielten opintoja varten 18). Helsinki: Suomalais-Ugrilainen Seura.
- Häkkinen, Kaisa. 2005. *Nykysuomen etymologinen sanakirja*. Helsinki: WSOY.
- Heine, Bernd, and Tania Kuteva. 2002. *World lexicon of grammaticalization*. Cambridge: Cambridge University Press.
- Huomo, Tuomas. 2007. "Force dynamics, fictive dynamicity and the Finnish verbs of 'remaining'." *Folia Linguistica* 41: 73–98.
- Huomo, Tuomas, and Jari Sivonen. 2010. "Conceptualizing change as deictic abstract motion: metaphorical and grammatical uses of 'come' and 'go' in Finnish." In *Meaning, Form, and Body*, ed. Mark Turner, Fey Parrill, Vera Tobin, 111–28. Stanford: CSLI Publications.
- Jokela, Hanna, and Kirsi-Maria Nummela. 2015. Become-constructions in Finnish and Estonian: diachronic and contrastive perspectives. *Linguistica Uralica* 51(2): 81–99.
- Kalnača, Andra. 2013. *Latviešu valodas gramatika*, ed. J. Grigorjevs and D. Nītiņa. Rīga: LU Latviešu valodas institūts.
- Kehayov, Petar, Eva Saar, Miina Norvik, and Andres Karjus. 2013. "Hääbuva kesklüüdi murde jälgedel suvel 2012." *Emakeele Seltsi aastaraamat* 58: 58–101.
- KS = Grönros, Eija-Riitta (ed.) 2006. *Kielitoimiston sanakirja 1–3* (Kotimaisten kielten tutkimuskeskuksen julkaisuja 140). Helsinki: Kotimaisten kielten tutkimuskeskus.
- Kettunen, Lauri. 1920. *Näytteitä etelävepsästä*. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Grünthal, Riho, and Anneli Sarhima (ed.) 2004/2012. *Itämerensuomalaiset kielet ja niiden päämurteet*. Suomalais-Ugrilainen Seura.
- Kujola, Juho (ed.) 1944. *Lyyläismurteiden sanakirja* (Lexica Societatis Fenno-Ugricae 9). Helsinki: Suomalais-Ugrilainen Seura.
- Laanest, Arvo. 1966. *Isuri murdetekste*. Tallinn: Valgus.
- Laanest, Arvo. 1975. *Sissejuhatus läänemeresoome keeltesse*. Tallinn: Eesti NSV Teaduste Akadeemia Keele ja Kirjanduse Instituut.
- Mägiste, Julius. 1964. *Liiviläisiä tekstejä* (Suomalaisen Kirjallisuuden Seuran Toimituksia 276). Helsinki: Suomalaisen Kirjallisuuden Seura.
- Nirvi, Ruben E. (ed.) 1971. *Inkeröismurteiden sanakirja* (Lexica Societatis Fenno-Ugricae XVIII). Helsinki: Suomalais-Ugrilainen Seura.
- NKK = Vladimir Rjagojev, Matti Jeskanen (ed.) 1994. *Näytteitä karjalan kielestä I. Karjalan Tasavallan ja sisä-venäjän karjalaismurteet*. Joensuu/Petroskoi: Joensuun yliopisto.
- Norvik, Miina. 2012. *Recordings of Central Ludic dialect*. Personal Collection, Archives of Estonian Dialects and Kindred Languages of the University of Tartu.
- Norvik, Miina. 2013. "Future time reference in Finnic: LEE(NE)-verbs." *Journal de la Société Finno-Ougrienne* 94: 125–64.
- Norvik, Miina. 2014a. "Change-of-state predicates and their use in expressing the future: the case of Livonian." *Eesti ja soome-ugri keeleteaduse ajakiri/Journal of Estonian and Finno-Ugric Linguistics* 5(1): 117–48.
- Norvik, Miina. 2014b. *Recordings of Central and Southern Veps dialect*. Personal Collection, Archives of Estonian Dialects and Kindred Languages of the University of Tartu.
- Norvik, Miina. 2015. *Future time reference devices in Livonian in a Finnic context*. PhD thesis. Tartu: University of Tartu Press.
- Norvik, Miina, and Külli Prillop. 2017. "The Estonian *jäädä* and Livonian *īdō*: expressions of REMAIN and CHANGE in various grammatical constructions." *Eesti ja soome-ugri keeleteaduse ajakiri/Journal of Estonian and Finno-Ugric Linguistics* 8(2): 233–66.
- NVM = Lauri Kettunen and Paavo Siro (ed.) 1935. *Näytteitä vepsän murteista (Mémoires de la Société Finno-Ougrienne LXX)*. Helsinki: Suomalais-Ugrilainen Seura.
- Ojansuu, Heikki, Juho Kujola, Jalo Kalima, and Lauri Kettunen. 1934. *Lyyläisiä kielennäytteitä*. Helsinki: Suomalais-Ugrilainen Seura.
- OVR = Зайцева, and Мария, Мария Муллонен. 1969. *Образцы вепсской речи*. Академия Наук СССР, Карельский филиал. Ленинград: Наука.
- Pajusalu, Renate. 1994. "Muutumisverbid eesti keeles ja nende vasted soome keeles." *Lähivertailuja* 8, 83–97.
- Pajusalu, Renate, and Ilona Tragel. 2007. "Word and construction as units of categorization. The case of change predicates in Estonian." In *Mental states, vol. 2: language and cognitive structure*, ed. Andrea C. Schalley, Drew Khlenzios, 289–310. Amsterdam: John Benjamins.
- Palmeos, Paula. 1962. *Karjala Valdai murrak* (Emakeele seltsi toimetised nr 5). Tallinn: Eesti NSV Teaduste Akadeemia.
- Porkka, Volmari. 1885. *Ueber den ingrischen Dialekt mit Berücksichtigung der übrigen finnisch-ingermanländischen Dialekte*. Helsingfors.
- Pustet, Regina. 2003. *Copulas. Universals in the categorization of the lexicon* (Oxford Studies in Typology and Linguistic Theory). Oxford: Oxford University Press.
- Radden, Günter. 1996. "Motion metaphorized: the case of 'coming' and 'going'." In *Cognitive linguistics in the Redwoods: the expansion of a new paradigm in linguistics*, ed. Eugene H. Casad, 423–58. Berlin: Mouton de Gruyter.

- Radden, Günter, and René Dirven. 2007. *Cognitive english grammar*. Amsterdam/Philadelphia: John Benjamins.
- Sakel, Jeanette. 2007. "Types of loan: matter and pattern." In *Grammatical borrowing in cross-linguistic perspective*, ed. Yaron Matras, Jeanette Sakel, 15–30. Berlin/New York: Mouton de Gruyter.
- Setälä, Eemil N. 1953. *Näytteitä liivin kielestä* (Mémoires de La Société Finno-Ougrienne 106). Helsinki: Suomalais-Ugrilainen Seura.
- SRNG = Словарь русских народных говоров 35 (Ревель–Рящик). 2001. *Российская академия наук/Институт лингвистических исследований*. Санкт-Петербург: Наука.
- SSA = Erkki Itkonen – Ulla-Maija Kulonen (ed.) 1992–2000: *Suomen sanojen alkuperä. Etymologinen sanakirja* (Suomalaisen Kirjallisuuden Seuran Toimituksia 556/Kotimaisten kielten tutkimuskeskuksen julkaisuja 62). Helsinki: Suomalaisen Kirjallisuuden Seura/Kotimaisten kielten tutkimuskeskus.
- Stassen, Leon. 2004. *Intransitive Predication*. Oxford & New York: Oxford University Press.
- Tommola, Hannu. 1995. "States they are a'changin': on the semantics of 'remain' and 'become'." In *Temporal Reference, Aspect and Actionality* (Typological Perspectives, Vol. 2), ed. Pier Marco Bertinetto, Valentina Bianchi, Östen Dahl, Mario Squartini, 125–40. Torino: Rosenberg/Sellier.
- Tommola, Hannu. 2010. "Suunta ja muutos. Havainnot viron ja suomen liikeverbeistä." *Eesti ja soome-ugri keeleteaduse ajakiri* 1(2): 311–40.
- Tragel, Ilona, and Külli Habicht. 2012. Grammaticalization of Estonian *saama* "to get". *Linguistics* 50(6): 1371–412.
- VES = Vene-eesti sõnaraamat, <https://www.eki.ee/dict/ves/> (30.09.2018).
- Viiitso, Tiit-Rein, and Valts Ernštreits. 2012. *Līvõkīel-ēstikīel-leṭkīel sōnārōntōz. Liivi-eesti-läti sõnaraamat. Lībiešu-igauņu-latviešu vārdnīca*. Tartu/Rīga: Tartu Ülikool/Latviešu valodas aģentūra.
- VISK = Auli Hakulinen, Maria Vilks, Riitta Korhonen, Vesa Koivisto, Tarja Riitta Heinonen, and Irja Alho. 2004. *Iso suomen kielioppi*; <http://scripta.kotus.fi/visk/etusivu.php> (30.09.2018).
- VKS = Silja Grünberg (ed.) 2013. *Vadja keele sõnaraamat = Vad'daa tšeelee sõna-tširja = Словарь водского языка*. Tallinn: Eesti Keele Instituut.