

Non-finite Verbs and their Objects in Finnic

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Abstract. This paper presents a corpus study comparing and contrasting the infinitives and participles and their objects in the Finnic languages Estonian, Finnish, Karelian, Livonian and Veps. There are up to four infinitives, the nomenclature varying from language to language, but here referred to as *-ta*, *-ma*, *-e* and fourth infinitive. The *-ma* infinitive is inflected for a number of cases, the others have fewer cases. The *-ta* infinitives function as subjects and objects, while the *-ma* infinitives have an adverbial function. The *-e* infinitive links two simultaneous activities. The fourth infinitive is productive only for expressions of obligation in Livonian. Active and passive present and past participles occur in all the languages. The present participles function mainly as adjectives and agree in number and case with the noun which they modify. In Finnish passive present participles can be used to indicate obligation. Past participles form compound tenses with the auxiliary ‘be’, and can also head participial clauses. They also function as adjectives, but only show agreement in some languages. The objects of non-finite verbs are more frequently partitive than those of finite verbs, because the action is usually incomplete.

Keywords: non-finite verbs, Finnic, infinitive, participle, object case

1. Introduction

The aim of the present study is to compare and contrast the system of non-finite verbs of the Finnic languages Estonian, Finnish, Karelian, Livonian and Veps. The syntax of infinitives and participles is complex in the Finnic languages. Descriptions are found for Estonian in Viitso (2007:63-65; 212-215), for Finnish in Hakulinen et al. (2004:146-149), and for Veps in Kettunen (1943:484-515). For Karelian, Markianova & Mensonen (2006:96-108) have a section on infinitives and participles. Kettunen (1938:65-70) discusses non-finite verbs in Livonian. Only the Estonian grammar is written in English, but there is also a Finnish grammar (Karlsson 1999), translated into English by Andrew Chesterman. Vainikka (1989:243-320) presents a detailed government-binding analysis of Finnish non-finite verb constructions. The general description of the non-finite verbs is common knowledge among Finnic linguists, but as much of the information has been published in Finnish or Estonian, it is not all readily accessible to others. Where possible, references in English are given.

1.1. *The corpus*

A translation of the Gospel of St. Matthew from the New Testament in each language has been used for this study, providing a corpus of comparable material. The Estonian New Testament (*Uus Testament*), published in 1989, is a new translation from the original Greek, and differs significantly from previous translations. The Finnish Bible (*Pyhä Raamattu*) (1992) is also a new translation. The Karelian New Testament (*Uuzi Sana*) was published in 2003 in the Olonets (also known as the Aunus or Livvi) dialect. The Livonian New Testament (*Ūz Testament*) (1942) was translated by the Livonian Karl Stalte, and reviewed by a mainly Finnish panel including Lauri Kettunen. Tveite (2004:44) expresses some doubt about this translation, suggesting that the panel may have had an undue influence. For Veps the translation of the Gospel of St. Matthew (*Evangelii Matvejan mödhe*), published in 1998, has been used.

1.2. *Object case in Finnic languages*

Of particular interest in this study is the choice of case for the objects of non-finite verbs. Kont (1963:118-144) has a major section on infinitives and their objects, which has been summarized by Tveite (2004:19). The classification of infinitives

used by Kont has been modified by recent grammarians. The object case in Finnic languages is partitive if the action is not completed or if only part of the object is affected. If the action is completed and the total object is affected by the action, the case is nominative for plural nouns, and genitive for singular nouns. Under some conditions, such as with imperative and impersonal verbs and some expressions of obligation, the singular total object is in the nominative case rather than genitive. In Finnish personal pronouns as total objects have a special case, the *-t* accusative. These case alternations have been dealt with in Kiparsky (1998) concerning Finnish, and in Lees (2004), comparing Estonian and Finnish. Because personal pronouns differ in their case selection in the languages studied, the present analysis is restricted to noun objects, although some mention of personal pronouns is used to clarify certain aspects. Livonian presents a problem in glossing, as the singular nominative and genitive nouns are often identical, and the plural ones show regular syncretism. There is no accusative case in the recent formal grammars of any of the Finnic languages in the present corpus, with the exception of Karelian (Markianova & Mensonen 2006:44) and the Finnish *-t* accusative. There is no completely satisfactory term to cover all the cases of the non-partitive object. Tveite (2004:13) has explained his reasons for using the term "accusative" as an inclusive term for the non-partitive object, and I have followed his example. Mostly I have glossed objects as either partitive or accusative. Where it is important to differentiate between the genitive as an object case, or as a possessive or noun modifier or subject, I have glossed the object as genitive/accusative. Similarly, in places I have glossed the nominative object as nominative/accusative.

Verbs differ in their intrinsic aspect, and some, such as 'love', almost always take a partitive object, while others, such as 'kill', take an accusative object if it is total (for example a person) or partitive if the object is partial (for example killing some of a swarm of mosquitoes). An important difference between Estonian and Finnish is that verbs of perception and cognition take the accusative case in Finnish and partitive in Estonian. Objects of negative verbs are always partitive (with some exceptions in Livonian), therefore only affirmative clauses have been included in the statistics of object case. However, where total numbers of various infinitives are given, intransitive ones and those from negative clauses are included.

2. Infinitive verbs

The system of infinitive verbs varies considerably from language to language. There are up to four infinitives and they are case-inflected to a variable degree. The nomenclature differs, especially between Estonian and Finnish. The other languages follow the earlier Finnish nomenclature, naming them numerically from first to fourth. Karlsson (1999:182-193) uses the numerical classification. The more recent Finnish grammar (Hakulinen et al. 2004:146) classifies them according to morphology. For ease of comparison, I will here refer to them as the *-ta*, *-ma*, *-e* and fourth infinitive. The *-ta* infinitive is the most common infinitive and functions mainly as subject or object. The *-ma* infinitive has an adverbial function. The *-e* infinitive links two activities which occur simultaneously. The fourth infinitive is only productive in Livonian, where it expresses obligation.

2.1. *The -ta and -ma infinitives*

2.1.1. *General remarks*

The *-ta* infinitive is called the “first infinitive” in Karelian, Livonian and Veps. In the most recent Finnish grammar, it is named the “-A infinitive”, and in Estonian it is now the only form considered to be an “infinitive”, but is also referred to as the “-*da* infinitive”. In all the languages the *-ta* infinitive has undergone phonological changes, especially assimilation, with the resultant loss of *-t-* in many verbs and emergence of many different forms in every language, particularly Karelian. Due to vowel harmony in Finnish and Karelian, *a* alternates with *ä*. In Livonian the *-ta* infinitive usually ends in *-da/ta* or *-dõ/tõ*, but sometimes the final vowel is deleted. The *-ta* infinitive occurs syntactically as subject or object, as well as in other functions (Viitso 2007:65; Kettunen 1943:484-490). Examples (1) and (2) illustrate the use of the *-ta* infinitive as subject and object respectively in Estonian.

(1)E¹ *Keeli* *uurida* *on* *huvitav.*
 language.PL.PART study.taINF be.3SG interesting.NOM
 ‘Studying languages is interesting.’

(2)E *Ma tahan keeli* *uurida.*
 I want.1SG language.PL.PART study.taINF
 ‘I want to study languages.’

In Finnish there is a translative case of the *-ta* infinitive, with the meaning ‘for the purpose of’, which has a possessive suffix agreeing with the subject of the matrix clause, as in example (3). Otherwise the *-ta* infinitive is uninflected.

(3)F *Ihminen* *syö* *eläkseen.*
 man.SG.NOM eat.3SG live.taINF.TRANSL.3POSS
 ‘Man eats in order to live.’
 (Karlsson 1999:184)

The *-ma* infinitive is known as the “third infinitive” in most languages. It is now called the “-MA infinitive” in Finnish (Hakulinen et al. 2004:146) and the “supine” (previously “-*ma* infinitive”) in Estonian (Viitso 2007:64). It appears in all the languages in several different cases, the most common being the illative. The illative case occurs mostly in conjunction with verbs of coming, going or beginning, indicating going into an activity. In Estonian it is also selected by the modal ‘must’, as shown in example (4).

(4)E *Ma pean* *minema.*
 I must.1SG go.maINF.ILL
 ‘I must go.’

The inessive case is associated with being in the process of an activity and the elative coming out of or ceasing an activity (Viitso 2007:64). Vainikka (1989:253) quotes

¹ The letter indicates the language in the example.

Nikanne (1988) saying that the locative cases of the *-ma* infinitive correspond to locative adpositional phrases. Although the adessive is a locative case, meaning ‘on’, in Finnish it is used commonly in an instrumental function. The adessive *-ma* infinitive is used to indicate that the particular activity is the means of doing something. According to Kettunen (1943:500) the adessive case of this infinitive does not occur in Veps, but an example was found in the corpus. The abessive means ‘without doing something’. The translative case of the Estonian *-ma* infinitive, meaning ‘for the purpose of’, was invented by the language reformer Johannes Aavik, and became popular in the 1960s. Table 1 shows the cases in the different languages. All the cases are not represented in every language.

	Estonian	Finnish	Karelian	Livonian	Veps
Illative	<i>-ma</i>	<i>-mAAAn</i>	<i>-mAh</i>	<i>-(a/õ)m</i>	<i>-mha</i>
Inessive	<i>-mas</i>	<i>-mAssA</i>	<i>-mAs</i>	<i>-mõs</i>	<i>-mas</i>
Elicative	<i>-mast</i>	<i>-mAstA</i>	<i>-mAs(päi)</i>	<i>-mõst</i>	<i>-maspā</i>
Adessive		<i>-mAllA</i>	<i>-mAl</i>		<i>-mal ?</i>
Abessive	<i>-mata</i>	<i>-mAttA</i>	<i>-mAttAh</i>	<i>-mõt</i>	<i>-mata</i>
Translative	<i>-maks</i>				

Table 1. The cases of the *-ma* infinitive in the five languages

2.1.2. Results from the corpus study

The total number of the *-ma* and *-ta* infinitives in the various cases found in the corpus is shown in Table 2. This table includes intransitive verbs as well as transitive ones in both negative and affirmative clauses.

It is noticeable that in Veps there are far fewer illative *-ma* infinitives than in the other languages. At the same time there are many more *-ta* infinitives. Kettunen (1943:491) points out that the first (*-ta*) infinitive is sometimes used in Veps where Finnish would use the third (*-ma*) infinitive, and attributes this to Russian influence.

-ma	Estonian	Finnish	Karelian	Livonian	Veps
Illative	156	106	115	120	58
Inessive	14	18	21	2	13
Elicative	3	8	6	0	0
Adessive		8	0		1
Abessive	11	7	2	1	6
Translative	0				
-ta	240	195	169	147	314
Translative		7			

Table 2. Total number of -ma and -ta infinitives in the various cases

A number of verbs, nouns and adjectives can select the *-ta* infinitive as their complement. This selection is determined lexically. In example set (5) we have corresponding clauses in all the languages, with ‘want’ selecting the *-ta* infinitive.

(5)E *kui keegi tahab käia minu järel*
if anyone want.3SG walk.taINF 1SG.GEN after

(5)F *jos joku tahtoo kulkea minun jäljessäni*
if anyone want.3SG walk.taINF 1SG.GEN after

(5)K *ken ku tahtonou astuo minule jälles*
whoever want.3SG step.taINF 1SG.ALL after

(5)L *až mingi minnõn tāb tagan tūlda*
if anyone 1SG.DAT want.3SG after come.taINF

(5)V *ku ken-se tahtoib eläda minun mödhe*
if anyone want.3SG live.taINF 1SG.GEN along
‘if anyone wants to follow me’; (V) ‘if anyone wants to live my way’
(Matt. 16:24)

The next set of examples (6) shows that a noun may select the *-ta* infinitive as its complement.

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(6)E *Inimese Pojal on meelevald patte*
 man.GEN son.ADE be.3SG power.NOM sin.PL.PART

andeks anda
 PT forgive.taINF

(6)F *Ihmisen Pojalla on valta antaa*
 man.GEN son.ADE be.3SG power.NOM forgive.taINF

syntejä anteeksi
 sin.PL.PART PT

(6)K *Ristikanzan Poijal on valdu prostie*
 man.GEN son.ADE be.3SG power.NOM forgive.taINF

riähkii
 sin.PL.PART

(6)L *Rišting Pūogan um võimi patud*
 man.GEN son.DAT be.3SG power.NOM sin.PL.ACC

andõks andõ
 PT forgive.taINF

(6)V *Mehen Poigal om vald pästta*
 man.GEN son.ADE be.3SG power.NOM forgive.taINF

grähkäd
 sin.PL.ACC

‘the Son of Man has the power to forgive sins’

(Matt. 9:6)

The object of ‘forgive’ is partitive in Estonian, Finnish and Karelian, but accusative in Livonian and Veps. In Veps, where the singular partitive and the plural nominative/accusative are often homonymous, the noun *grähkäd* could be either, but as ‘sins’ is plural in all the other languages, I have assumed that it is also plural here.

The use of the accusative implies that the object is definite: ‘the sins’, ‘all the sins’. Table 3 shows the case of noun objects of *-ta* infinitives in affirmative clauses. The first series of numbers in the two object columns refers to the absolute number of tokens, the first series in brackets to the percentages of either case in the language concerned. The second series in brackets is included for comparison from an as yet unpublished study of the objects of finite present tense verbs from the same corpus.

	Partitive	Accusative	Total
Estonian	39 (67.2%)(55.5)	19 (32.8%)(44.5)	58
Finnish	28 (45.9%)(39.2)	33 (54.1%)(60.8)	61
Karelian	43 (55.1%)(41.6)	35 (44.9%)(58.4)	78
Livonian	18 (62.1%)(60.7)	11 (37.9%)(39.3)	29
Veps	31 (39.7%)(39.0)	47 (60.3%)(61.0)	78

Table 3. Case of the noun objects of *ta*-infinitives

All these languages have a greater proportion of partitive nouns as objects of *-ta* infinitives compared to objects of finite verbs in the present tense. The differences in Livonian and Veps are quite small. The action indicated by the infinitive is often not completed due to the semantics of the governing verbs, for example ‘be able’, ‘want’ and ‘intend’. In addition to the basic form of the *-ta* infinitive, in Finnish there were three transitive instances of the translative case of the infinitive, one with a partitive object, and two with an accusative one.

Table 4 shows the case of noun objects of the illative *-ma* infinitive. There is a clear distinction between Estonian and Karelian on the one hand and Finnish and Veps on the other, with Livonian in between. There are almost no accusative objects in Estonian and Karelian. In the others also partitive objects predominate, but there are also significant numbers of accusatives. The *-ma* infinitives in the illative case are mostly governed by verbs of motion, so the action will not have been completed, although it may be so in the future. It is unusual for Estonian and Karelian to show so much similarity, which usually occurs more frequently between Estonian and Livonian. Finnish and Veps have a greater proportion of accusative objects generally, because objects of verbs of perception and cognition are accusative, while in Estonian and Livonian they are partitive. Karelian falls somewhere in between, but most noun

objects of these verbs are accusative. Kont (1963:119) also reports a predominance of partitive objects of *-ma* infinitives, but does not have any statistics.

	Partitive	Accusative	Total
Estonian	30 (96.8%)	1 (3.2%)	31
Finnish	21 (56.8%)	16 (43.2%)	37
Karelian	37 (97.4%)	1 (2.6%)	38
Livonian	23 (76.7%)	7 (23.3%)	30
Veps	12 (57.1%)	9 (42.9%)	21

Table 4. Case of noun objects of illative *-ma* infinitives in affirmative clauses

Some examples of the use of the illative *-ma* infinitive are given in example set (7). In these examples the object ‘peace’ (‘mercy’) is partitive in all the languages.

- (7)E *et ma olen tulnud rahu tooma*
 that I be.1SG come.PST.PTCP peace.PART bring.maINF.ILL
- (7)F *että minä olen tullut tuomaan rauhaa*
 that I be.1SG come.PST.PTCP bring.maINF.ILL peace.PART
- (7)K *minä tulin tuomah rauhua*
 I come.1SG.PST bring.maINF.ILL peace.PART
- (7)L *ku ma ūob tund armõ tüom*
 that I be.1SG come.PST.PTCP mercy.PART bring.maINF.ILL
- (7)V *miše minä olen tulnu tomha mirud*
 that I be.1SG come.PST.PTCP bring.maINF.ILL peace.PART
 ‘that I have come to bring peace (mercy)’
 (Matt. 10:34)

Other cases of the *-ma* infinitive are few in number, most of them as the inessive *-mas/-massa* forms. The case of noun objects is shown in Table 5. The numbers are too few for firm conclusions, but here too the partitive case appears to predominate. There were no abessive forms with noun objects.

	Estonian		Finnish		Karelian		Livonian		Veps	
Case	Part	Acc	Part	Acc	Part	Acc	Part	Acc	Part	Acc
Inessive	1	0	5	1	2	0	1	0	3	0
Elicative	0	0	1	0	1	0	0	0	0	0
Adessive			1	2	0	0			1	0

Table 5. Object case of *-ma* infinitives in other than illative cases.

Some examples of the inessive *-ma* infinitive are shown below.

- (8)F *jos olet viemässä uhrilahjaasi alttarille*
 if be.2SG take.*ma*INF.INE offering.PART.2SG.POSS altar.ALL
 ‘if you are taking your offering to the altar’

(Matt. 5:23)

- (9)L *kis vol't Jesuzõ var'tõmõs*
 who be.3PL.PST Jesus.PART guard.*ma*INF.INE
 ‘who were guarding Jesus’

(Matt. 27:54)

The objects are partitive because the action is not completed. The inessive has a locative connotation, the subject being (or about to be) located in the particular activity. Although this construction looks like a straightforward progressive, in Estonian it has generally been used only for a continuous process rather than a deliberate activity, the latter being more commonly indicated by the simple present or past tense. The clause in example (9), where Livonian has the inessive infinitive, is rendered with the simple past tense in the other languages, with the object ‘Jesus’ in the partitive case. However, in Finnish there is now an increasing tendency to use the inessive form of the *-ma* infinitive as a progressive (Sulkala 1996:196) and it is beginning to be so also in Estonian (Mati Ereht, personal communication 2009).

In example sets (5) and (7), a cognate infinitive is shown, but this is not always the case. In the next example set (10), the verb ‘begin’ is in some languages followed by the *-ta* infinitive and in others by the *-ma* infinitive. The verb ‘begin’ itself in this set of clauses is different in each case, although some cognate forms do exist as well. In the Veps example the verb ‘begin’ has been omitted.

(10)E *hakkasid* *nad* *järjestikku* *Talle* *ütlema*
 begin.3PL.PST they one_after_another he.ALL say.maINF

(10)F *he* *alkoivat* *toinen toisensa* *jälkeen*
 they begin.3PL.PST one another.GEN.3POSS after

kysellä

ask.FREQ.taINF

(10)K *hüö* *ruvettih* *küzelemäh* *toine* *toisele* *jälles*
 they begin.3PL.PST ask.FREQ.maINF one another.ALL after

(10)L *ÿrgiz* *jegaÿkš* *rõkandõ* *täm* *pāl*
 begin.3SG.PST everyone say.taINF he.GEN on

(10)V *hö* *küzeleşkanziba* *toine* *toižen* *jäl'ghe*
 they ask.FREQ.3PL.PST one another.GEN after
 ‘one after another they began to ask/say to him’, (V) ‘... they asked’
 (Matt. 26:22)

In Estonian and Karelian the *-ma* infinitive is selected, in the others the *-ta* infinitive. There is a verb *zavoda* ‘begin’ in Veps, which selects the *-ta* infinitive. In Finnish there is another verb *ryhtyä* ‘begin’, which takes the *-ma* infinitive.

2.2. The *e*-infinitive

2.2.1. General remarks

The second infinitive, with an *-e* stem, is mentioned for all languages, except Estonian, where a similar form with the same function exists under the name of “gerund” (Viitso 2007:65). In Finnish nowadays it is called the “E-infinitive”. It is in the inessive case in all the languages, and also in the instructive case in Finnish, Karelian and Veps. The various suffixes are shown with the number of occurrences in Table 6. In Finnish the inessive has a possessive suffix to mark the subject of the infinitive if it is coreferential with the subject of the matrix clause. If the subjects differ, the subject of the infinitive is in the genitive case. The *-e* infinitive is not used with an auxiliary or as an attribute. It forms the head of a non-finite clause, which links two

simultaneously occurring activities. The inessive case indicates a time relation, while the instructive relates to manner. In Estonian and Livonian the inessive case covers both functions.

2.2.2. Results from the corpus study

The *-e* infinitive is particularly common in Estonian and Livonian, but is also quite productive in the other languages. Table 6 shows the total numbers, which includes intransitive verbs and verbs from negative clauses. The suffixes in the various languages are also shown. Although no examples of the instructive case were found in the Veps corpus, this case does exist in Veps (Kettunen 1943:492).

	Estonian	Finnish	Karelian	Livonian	Veps
Total	127	53	24	235	20
Inessive	127 (-es)	30 (-essa)	13 (-es)	235 (-õs)	20 (-es)
Instructive		23 (-en)	11 (-en)		0 (-en)

Table 6. Numbers of *-e* infinitives

A Livonian example follows, showing the use of the inessive case to indicate the manner of the action, as there is no instructive case in Livonian.

- (11)L *tyjald ne palkõbõd minnõn opatõs rovšti*
 in_vain they serve 1SG.DAT teach.eINF.INE people.ELA

käsktõt opatikši
 command.PPP doctrine.PL.PART
 ‘in vain they serve me, teaching doctrines commanded by the people’
 (Matt. 15:9)

Table 7 shows the results of the case analysis of the noun objects of the inessive case of the *-e* infinitive found in the corpus.

	Partitive	Accusative	Total
Estonian	29 (96.7%)	1 (3.3%)	30
Finnish	1	2	3
Karelian	1	0	1
Livonian	20 (95.2%)	1 (4.8%)	21
Veps	0	1	1

Table 7. The case of the object of the inessive case of the *-e* infinitive

The objects are overwhelmingly partitive. This makes sense, as the action described is in progress. Both of the Finnish accusatives are objects of verbs of perception, where the accusative is generally used in Finnish, the aspect being interpreted as instantaneous, as in example (12). Both inessive and instructive cases are illustrated in this example.

- (12)F *joka* *sanoman* *kuullessaan*
 who.SG.NOM message.SG.ACC hear.eINF.INE.3POSS
- heti* *ottaa* *sen* *iloiten* *vastään*
 immediately take.3SG it.ACC rejoice.eINF.INST towards
 ‘who, hearing the message, immediately accepts it rejoicing’
 (Matt. 13:20)

In Karelian the passive past participle is used instead of the inessive *-e* infinitive in the clause corresponding to (12). In the other languages there are two sequential clauses: ‘who hear the word and accept it’.

There are only isolated instances of the instructive case with a noun object in the corpus. In Finnish and Karelian there is one object each in the partitive case, as in the Finnish example:

- (13)F *päättään* *nyökyttäen* *he sanoivat ...*
 head.SG.PART.3POSS nod.eINF.INST they said
 ‘nodding their heads, they said ...’
 (Matt. 27:39)

2.3. *The fourth infinitive*

2.3.1. *General remarks*

The fourth infinitive is described in older Finnish grammars (Karlsson 1999:192) with the suffix *-minen*, but is no longer included as an infinitive in Hakulinen et al. (2004:146). Kettunen (1938:67) has the form *-mi* for Livonian, and Kettunen (1943:501) mentions *-mīne* in Veps. It is not mentioned at all in the Karelian grammar by Markianova & Mensonen (2006). The same form as the fourth infinitive exists as the de-verbal action nominalization in all the languages (*-mine* in Estonian), but it is uncommon in Karelian and Veps, where *-nda* is the usual suffix for the nominalization. Karlsson (1999:193) differentiates between *-minen* as an infinitive and as an action nominalization, pointing out that the fourth infinitive in Finnish occurs in only two cases, nominative and partitive, while the action nominalization is declined in all the cases like any other noun. As an infinitive it has the sense of obligation, most commonly in the negative as prohibition, when it is in the partitive case, as in (14).

- (14)F *Sinne ei ole menemistä.*
 there NEG.3SG be go.4INF.PART
 ‘One must not go there.’ (lit. ”There is no going there.”)
 (Karlsson 1993:193)

This sentence is still grammatical in Finnish, but *menemistä* is now classified as a nominalization rather than an infinitive.

In Livonian the partitive case *-mist/mõst* of the 4th infinitive appears commonly in neccessive constructions (Kettunen 1938:67). The nominative form (*-mi*) is used in the corpus purely as an action nominalization. Moseley (2002:51) calls the partitive form the ”infinitive of obligation” and suggests that the Livonian construction has been borrowed from Latvian. The structure is that of a possessive clause, with the verb ‘be’ and possessor in the dative case, as in Latvian; see Lees (2008:12) for the structure of possessive clauses. The Livonian dative possessor differs from other Finnic languages, where it is adessive. A Livonian example of a possessive clause is shown in (15).

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- (15)L *rebbistõn āt ōkōd*
fox.PL.DAT be.3PL lair.PL.NOM
'foxes have lairs'
(Matt. 8:20)

The Livonian fourth infinitive can have a partitive object, as in (16) below.

2.3.2. Results from the corpus study

The results relating to the fourth infinitive apply only to Livonian. An example follows:

- (16)L *kīen um valmōstōmōst sin*
who.DAT be.3SG prepare.4INF.PART 2SG.GEN

riekkō sin jeds
way.SG.PART 2SG.GEN before
'who must prepare your way before you'
(Matt. 11:10)

There are 15 instances of this construction with noun objects, of which eleven are partitive and four accusative.

3. Participles

3.1. Active present participles

3.1.1. General remarks

Active present participles occur in all the languages, but are most common in Finnish. The suffix is *-v(A)/-b*, except in Karelian where it is *-i*, *-jA* or *-jU*, although occasional examples of forms cognate with the others are found. While a present participle may be the complement of the copula 'be', it is not used to indicate progressive action, such as 'he is working', but rather describes an attribute of the subject. These participles function mainly as adjectives, mostly attributively, where they may be substituted for a relative clause. They can occasionally have objects, mostly partitive, and can be modified by verb modifiers, e.g. those of manner. They agree in number and case with the noun they modify, as seen in (17) below.

- (17)E *ma näen tööd tegevat meest*
 I see work.PART do.PRS.PTCP.SG.PART man.SG.PART
 ‘I see a/the working man’

Example (17) is a somewhat contrived example. It would be more natural to use the present tense of the verb *töötama* ‘work’ in a relative clause, as ‘I see the man who is doing some work’. The example is here to show that it is possible, although not common, for a present participle to have an object. As the action is ongoing, the object is partitive.

The suffix *-jA/-i/-ji* is used to derive the actor nominalization from verbs in Finnic languages. There is a close relationship between the present participle suffix *-vA* and the actor nominalization, as exemplified by the same suffix being used for both functions in Karelian, and occasionally in other languages.

A couple of Karelian examples with objects are shown in (18) and (19).

- (18)K *karjalazet ollah ruavon suvaččijat*
 Karelian.PL.NOM be.3PL work.SG.GEN love.PRS.PTCP.PL.NOM
*rahvas.*²
 people.SG.NOM
 ‘The Karelians are people who love working (lit. “work-loving”).’
 (Markianova & Mensonen 2006:100)

There is also an example in the corpus:

- (19)K *oman ičen myöjät naizet*
 own.GEN self.GEN sell.PRS.PTCP.PL.NOM woman.PL.NOM
 ‘women who sell themselves’
 (Matt. 21:31)

² *Rahvas* ‘people’ is a collective singular noun, which takes plural agreement in Karelian.

Although I have glossed *suvaččijät* and *myöjät* as participles, because Markianova & Mensonen (2006:100) include *suvaččijät* under that heading, they could also be actor nominalizations, with the literal translation of (19) as "self-seller women". The verb in (18) is 'love', which typically takes a partitive object, so it appears likely that in the above examples the undergoer is not subject to the partitive/non-partitive alternation, and is an obligatory genitive. If there were an example with a plural undergoer also in the genitive rather than nominative/accusative case, this conclusion would be further strengthened. However, it does appear likely that in Karelian the undergoer of the *-ja* form must always be genitive.

According to Kettunen (1943:504) in Veps the present participle (*-pa/-va*) is rare and the actor nominalization (*-ja*) is taking over this function. The latter can occur attributively and then agrees in number and case with the noun it modifies. In Livonian the present participle (*-õb*) does exist (Kettunen 1938:68), but both Kettunen & Moseley (2002:57) state that it is not common. The actor nominalization (*-ji*) is also sometimes used attributively (Kettunen 1938:68), as in Veps. In the corpus there were three unusual examples of the use of the Livonian *-ji* suffix. According to Laanest (1975:156) this form can be used as an evidential (oblique mood). That function seems to be the best explanation for these examples, one of which is shown in (20). Evidentials are not inflected for person or number.

- (20)L *ta nutaji Eliõ*
 he call.EVID Elijah.PART
 'he is (seems to be) calling Elijah'
 (Matt. 27:47)

In Livonian this form can have a partitive object, at least in the evidential function.

3.1.2. Present participle indicating future in Finnish

In Finnish the active present participle with the verb 'be' can indicate that the action will take place in the future. It can be transitive, as in (21).

- (21)F *minä olen antava sinulle*
 1SG.NOM be.1SG give.PRS.PTCP.SG.NOM 2SG.ALL
taivasten valtakunnan avaimet
 heaven.PL.GEN kingdom.SG.GEN key.PL.ACC
 ‘I will give you the keys to the kingdom of heaven’
 (Matt. 16:19)

The participle in this construction agrees with the subject in number and case.

3.1.3. Participial clause constructions

In Estonian the partitive case of the present participle is used in participial clauses, which form the complement of verbs of perception and cognition, as in (22):

- (22)E *ja nad näevad Inimese Poega tulevat*
 and they see.3PL man.GEN son.PART come.PRS.PTCP.PART
 ‘and they see the Son of Man coming’
 (Matt. 24:30)

In its use in such participial constructions, the partitive present participle is now referred to as the “-*vat* participle” (Erelt 2007:120). The same form with the suffix -*vat* is also used as a main verb in the evidential (quotative/oblique) mood, the evidential having developed from the partitive case of the present participle (Campbell 1991:285-288; Tamm 2008:476).

In Finnish there is a similar participial construction, but with the genitive case of the present participle. It has not developed into an evidential in Finnish.

- (23)F *kun näkevät Ihmisen Pojan tulevan*
 when see.3PL man.GEN son.GEN come.PRS.PTCP.GEN
 ‘when they see the Son of Man coming’
 (Matt. 24:30)

According to Anttila (1989:103) historically the participle agreed with the object of the matrix verb in number and case, but as the objects of verbs of perception in Finnish take a genitive/accusative object in the singular, the object became reanalyzed

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as the genitive subject of the participle. As Estonian verbs of perception take a partitive object, it is not surprising that the final form of the participle in that language is the partitive *-vat*. The subjects of many non-finite verbs are genitive in Finnish. This is shown in example (24), where the personal pronoun is genitive, rather than the *-t* accusative *hänet*, which would be the usual form of the object of the verb ‘see’.

- (24)F *kun he näkivät hänen kävelevän*
 when they saw 3SG.GEN walk.PRS.PTCP.GEN

järven aalloilla
 lake.GEN wave.PL.ADE
 ‘when they saw him walking on the waves of the lake’
 (Matt. 14:26)

The participle in this construction can govern an object, which is partitive when the action is ongoing.

- (25)E *randa pidi kõndides, nägi Jeesus kaht*
 shore.PART along walk.ɛNF.INE saw Jesus two.PART

venda ... noota heitvat
 brother.SG.PART net.SG.PART cast.PRS.PTCP.PART
 ‘walking along the shore, Jesus saw two brothers ... casting a net’
 (Matt. 4:18)

- (26)F *kaikki, minkä tahdotte ihmisten*
 all.NOM what.GEN/ACC want.2PL person.PL.GEN

tekevän teille
 do.PRS.PTCP.GEN 2PL.ALL
 ‘all that you want people to do to you’
 (Matt. 24:30)

In (25) the object belongs only to the participial clause, whereas (26) is an equi construction with *minkä* being the object of both *tahdotte* and *tekevän*. In Finnish there are three examples of the partitive relative pronoun *mitä* ‘what’ as the object of

both the verb in the matrix clause and the participle, with the participle remaining in the genitive case.

In the other languages the kind of construction shown in (25) and (26) uses the inessive case of the *-ma* infinitive (illative in Livonian) instead of the present participle. Examples in Livonian and Veps are given below in (27) and (28).

(27)L *ja nābōd Rišting Puoigō tulm*
 and see.3PL man.SG.GEN son.SG.PART come.maINF.ILL
 ‘and they see the Son of Man coming’
 (Matt. 24:30)

(28)V *sigä hän nägišti ištmas mehen*
 there he see.3SG.PST sit.maINF.INE man.ACC
 ‘there he saw sitting a man’
 (Matt 9:9)

In Estonian also, the inessive *-ma* infinitive can be used when the participial clause is the complement of the verb ‘see’.

3.2. *Passive (impersonal) present participles*

Passive present participles are found in all the languages, but are uncommon in Livonian and practically non-existent in Veps (Kettunen 1943:846). The suffix is *-(t)Av(A)*, which in Livonian appears as *-tōb/-dōb*. They function as adjectives, and when used attributively, agree in number and case with the noun which they modify, except in Livonian, where they appear to be uninflected. When used predicatively they agree in number, but not necessarily in case.

Karlsson (1999:196) states that in Finnish this participle has several possible meanings: ‘can be done’, ‘will be done’, ‘must be done’, ‘is done’. In Karelian and Livonian also the sense of obligation can be found (Kettunen 1938:68), while in Estonian it generally means ‘can be done’ or ‘is done’.

A common use in Finnish is to indicate obligation. The agent is in the genitive case and the undergoer (logical object) of the action is partitive or accusative. In this construction, as with impersonal verbs generally, if the action is complete and the

object total, the singular object is nominative/accusative rather than genitive/accusative, while any personal pronoun is in the *-t* accusative case, characteristic of personal pronouns, as in example (29).

- (29)F *että hänet, hänen vaimonsa ja*
 that 3SG.tACC 3SG.GEN wife.SG.NOM/ACC.3POSS and
lapsensa ... oli myytävä
 child.PL.NOM/ACC.3POSS be.3SG.PST sell.PASS.PRS.PTCP.SG.NOM
 ‘that he, his wife and his children ... had to be sold’
 (Matt. 18:25)

The use of the *-t* accusative *hänet* ‘him’ here, and the lack of agreement of the verb ‘be’ with the plural ‘wife and children’, indicates that the undergoer is an object rather than subject. The impersonal verb and its argument have been discussed in detail in Lees (2006). If the agent is expressed in a neccessive construction, it is in the genitive case, as shown below.

- (30)F *hänen on annettava*
 3SG.GEN be.3SG give.PASS.PRS.PTCP.NOM
erokirja
 divorce_letter.NOM/ACC
 ‘he must give a letter of divorce’
 (Matt. 5:31)

Again, the undergoer *erokirja* ‘divorce letter’ is nominative/accusative.

3.3. Active past participles

3.3.1. General remarks

Active past participles occur in all the languages, with the suffix *-nU(t)* (*-õn* in Livonian). They form the compound tenses perfect and pluperfect, with the auxiliary verb ‘be’. Past participles can also function as adjectives or nouns, with variable inflection. In Estonian as adjectives they are invariable, but as derived nouns, they are fully inflected. In Livonian the adjectives agree at least in number (there are no examples in the corpus of other than nominative case), and in the other languages

agreement is in number and case. In Karelian only one example of an adjectival past participle was found with an object, which is genitive:

- (31)K *Jumalan hüllänüh polvi*
 god.GEN forsake.PST.PTCP.NOM generation.SG.NOM
 ‘the generation which has forsaken God’
 (Matt. 16:4)

In Finnish there was one example of the past participle used as a noun with a total object in the genitive case, as seen below.

- (32)F *kutsun saaneet*
 invitation.SG.GEN receive.PST.PTCP.PL.NOM

eivät tahtoneet tulla
 NEG.3PL want.PST.PTCP.PL come.taINF
 ‘those who had received the invitation did not want to come’
 (Matt. 22:3)

3.3.2. Active past participial clauses in the corpus

The active past participle can function as the head of a participial clause. In Estonian there were three examples of such participles with objects, all of which were accusative. An example is given in (33).

- (33)E *ja pununud kibuvitstest pärja,*
 and twist.PST.PTCP brier.PL.ELA garland.SG.GEN/ACC

panid selle Talle pähe
 put.3PL.PST it.GEN/ACC he.ALL head.ILL
 ‘and having twisted a garland of briers, they put it on his head’
 (Matt. 27:29)

According to Erelt et al. (1993:102) the past participle in these constructions can be considered a gerund, like the *-e* infinitive, but referring to an action which precedes the main action. The *-e* infinitive of the verb ‘be’ in the inessive case (*olles*), could precede the past participle, forming a compound gerund, but is usually omitted.

There were no examples of participial clauses with transitive active past participles in Finnish, Karelian or Veps. Livonian, however, stood out in having numerous clauses with transitive active past participle heads. There were 19 with noun objects in the partitive case (42.2%) and 26 (57.8%) in the accusative case. This is one construction where there is a predominance of accusative objects, at least when nouns only are considered. Such a finding is not unexpected, as we are here dealing with an action that is already finished, although the object is not necessarily totally affected, which accounts for the partitive objects. Some examples are shown below.

- (34)L *lōļōd,* *lāmpōd* *vōttōnd.*
 foolish.PL.NOM lamp.PL.ACC take.PST.PTCP.PL

ist *vōtat* *ōļļō* *entsōn* *ȳpi*
 NEG.PST.3PL take.CONNEG oil.PART self.DAT together
 ‘the foolish ones, having taken the lamps, did not take any oil with them’
 (Matt. 25:3)

- (35)L *kätä* *vientōn* *ta* *pūtiz*
 hand.SG.PART stretch.PST.PTCP.SG he.SG.NOM touched

tämmōn *jūr*
 he.DAT to
 ‘having stretched out his hand, he touched him’
 (Matt. 8:3)

Comparing these two examples, it is evident that in Livonian the active past participle agrees with its subject in number.

3.3.3. Finnish agent construction

In Finnish, instead of using the active past participle (*-nUt*) when the participle is used as an adjective and has an expressed agent as well as an undergoer, there is a different participle with the suffix *-mA*. This is declined like an adjective, agreeing with the noun which it modifies. One example was found in the text.

- (36)F *hän vei saamansa kolmekymmentä*
 he take.3SG.PST receive.AC.NOM/ACC.3POSS thirty.NOM/ACC
hopearahaa takaisin ylipapeille
 silver_coin.SG.PART back high_priest.PL.ALL
 ‘he took the 30 silver coins, which he had received, back to the high priests’
 (Matt. 27:3)

This construction, like most participles, can be substituted for a relative clause. The subject ‘he’ of ‘receive’, which is the same as that of the matrix clause, is indicated by the possessive suffix. If the subject of the participle differs from that in the matrix clause, it is in the genitive case.

3.4. *Passive (impersonal) past participles*

3.4.1. *General Remarks*

These participles have the *-t(t)* morpheme characteristic of the impersonal voice, resulting in the suffix *-t(t)U(t)*. The most common function of these is in the formation of the compound impersonal and passive tenses. Livonian has no impersonal voice, but does have what corresponds to the personal passive in Estonian. In Karelian the third person plural active perfect and pluperfect tenses use the passive past participle with the auxiliary ‘be’, while in all the other persons the active past participle is used.

The passive past participle also functions as an adjective, both attributive and predicative. In Estonian and Livonian it is not inflected in compound tenses or as an adjective. A Livonian passive past participle (*käsktõt* ‘commanded’) can be seen in example (9) in Section 2.2.2. As nouns passive past participles are fully inflected. When used predicatively, it is often difficult to be sure whether the clause should be analyzed as a compound tense impersonal, as a personal passive or as a copula clause, with the impersonal past participle an adjectival copula complement. This problem is discussed for Estonian and Finnish in Lees (2006:10).

3.4.2. *Participial clauses with the partitive case of the passive past participle*

In Finnish and Karelian, there are numerous examples of participial clauses with the passive past participle in the partitive case as the head of the clause. Like the active

past participial clauses in Estonian and Livonian these function like the inessive *-e* infinitive, but with the action of the matrix verb occurring after the participial action, rather than simultaneously. Indeed, the most recent grammar of Finnish discusses this *-tua* construction together with the *-e* infinitive (VISK 2008: §544). Morphologically these participles are passive (impersonal), but syntactically and semantically active. Hence the Finnish grammar labels it merely *-tua infiniiti* “*-tua* non-finite”, not mentioning its impersonal origin. The agent is expressed in Finnish by a possessive suffix on the participle, agreeing with the subject of the matrix verb if the subject is the same. If the subject is different, it is genitive. In Karelian there is no possessive suffix, but if there is a subject different from that of the matrix clause, it is also in the genitive case. Example set (37) compares this construction in the two languages.

(37)F *kuninkaan* *sanat* *kuultuaan*
king.GEN word.PL.NOM/ACC hear.PPP.PART.3POSS

tietäjät *lähtivät* *matkaan*
wise_man.PL.NOM go.3PL.PST journey.ILL

(37)K *suarin* *sanoin* *kuultuu*
king.GEN word.PL.GEN hear.PPP.PART

tiedäjät *lähtiättih* *matkah*
wise.man.PL.NOM go.3PL.PST journey.ILL

‘having heard the king’s words, the wise men went on their way’

(Matt. 2:9)

The difference between the two languages, apart from the possessive suffix in Finnish, lies in the case of the object, which is nominative/accusative in Finnish and genitive in Karelian. Plural total objects in the present Karelian corpus are in the nominative/accusative case, so the Karelian genitive plural noun *sanoin* in (35)K does not appear to be an object. However, Markianova & Mensonen (2006:46) do include the genitive plural form under the accusative category in their table of noun cases. There are no examples of partitive objects in this construction in the corpus. Genetz (1885:192) states that the object of the inessive form of the *-e* infinitive in

Karelian (Olonets/Aunus dialect) is always in the genitive case, which is probably relevant also for the related partitive passive past participial construction in this section, as the two function in a similar way. However, in the corpus there was one partitive object of an *-e* infinitive in Karelian (Table 7). None of the participial clauses in the corpus had a different subject from that in the matrix clause as well as an object, which could result in two genitive arguments in the clause.

4. Concluding remarks

The syntax of infinitives and participles is complicated in the Finnic languages. There are many similarities, but also differences between the various languages. All the infinitives and participles have verbal and nominal features in varying degrees. Syntactically infinitives can occupy positions characteristic of noun phrases and can be inflected like nouns to a limited degree, and at the same time they can govern objects and be modified by adverbs. Participles have tense and voice. There are many instances where a non-finite clause can substitute for a temporal subordinate clause. Participles often replace a relative clause.

The objects of non-finite verbs are more frequently partitive than those of finite present tense verbs, especially objects of illative *-ma* infinitives and inessive *-e* infinitives, as these usually refer to ongoing activities.

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Abbreviations

1: first person - 2: second person - 3: third person - AC: agent construction - ACC: accusative - ADE: adessive - ALL: allative - CONNEG: connegative - DAT: dative - E: Estonian - ELA: elative - EVID: evidential - F: Finnish - FREQ: frequentative - GEN: genitive - ILL: illative - INE: inessive - INF: infinitive - INST: instructive - K:

Karelian - L: Livonian - NEG: negative - NOM: nominative - PART: partitive - PASS: passive - PL: plural - POSS: possessive suffix - PPP: passive past participle - PRS: present - PST: past - PT: particle - PTCP participle - SG: singular - TRANSL: translative - V: Veps

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