

# Temporal relations in North Sámi ECM constructions

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## Abstract

The embedded verb in North Sámi ECM-constructions can appear in one of three different forms: past participle, progressive and infinitive. The existing descriptions of North Sámi say that the past participle places the embedded event before the higher event, that the progressive (traditionally called *aktio essive*) expresses temporal coincidence with the higher event, and that the infinitive normally gets a future interpretation, but it might also coincide temporally with the higher clause. This paper shows that although these generalisations are mostly correct, variation in the temporal interpretation of ECM complement clauses can be caused by a number of factors. In particular, the semantics of the matrix verb and the aspectual properties of the lower verb can influence the temporal relation between the matrix event and the embedded event. In addition, temporal adverbials can shift or fix the time of the embedded event.

Keywords: North Sámi, non-finite clause, tense

## 1. Introduction<sup>1</sup>

North Sámi has several non-finite verb forms, as can be seen from grammars such as Nielsen (1979), Nickel (1990), Nickel & Sammallahti (2011), Svonni (2015, 2018), and also from Ylikoski (2009). Some of the non-finite forms mainly or exclusively have adverbial uses. The so-called gerund, shown in (1), is an example of this.<sup>2</sup>

- (1) Ruoktot mana-dettiin mii garvit dán báikki.  
*homewards go-GER we avoid.PRES.1PL this.ACC place.SG.ACC*  
'Going home we avoid this place.'

The temporal interpretation of the gerund is fixed; it denotes an event which coincides with the matrix event. Fixed temporal interpretation is typical of North Sámi non-finite adverbial clauses in general. The temporal properties of non-finite complement clauses are also traditionally considered to be relatively stable. In this paper, I will take a closer look at the temporal interpretations of non-finite complement clauses of one specific type, namely, so-called ECM constructions, i.e. constructions where the matrix verb takes as its only complement a clause with an accusative subject and a non-finite verb, where the latter is either an infinitive, a past participle, or a progressive form.<sup>3,4</sup> After a brief introduction of North Sámi ECM constructions in section 2, I address ECM constructions with embedded past participles in section 3, ECM constructions with embedded progressives in section 4, and ECM constructions with embedded infinitives in section 5. My findings are summarised in section 6. It turns out that although the existing descriptions of

<sup>1</sup> I would like to thank the speakers of North Sámi who shared their judgements with me, as well as two anonymous reviewers who gave very helpful comments to an earlier version of this paper.

<sup>2</sup> The examples in this paper are taken from SIKOR, the Sámi corpus developed by UiT The Arctic University of Norway and the Norwegian Saami Parliament, version 06.11.2018. See [gtweb.uit.no/korp/](http://gtweb.uit.no/korp/). Some of the examples have been lightly edited, but deviations from the written norm have not been corrected.

<sup>3</sup> ECM is short for "Exceptional Case Marking".

<sup>4</sup> Magga (1986) discusses a variety of structures with embedded infinitives. In the chapter on accusative and infinitive, as he calls it, he also includes constructions that could more correctly be analysed as causatives or as control structures.



the temporal properties of North Sámi non-finite complement clauses mostly holds true of these constructions, all three types allow some variation that also should be recognised.

## 2. ECM constructions in North Sámi

In North Sámi, the matrix verb in ECM constructions can be a verb of saying and cognition, as in (2), or an experiencer verb, as in (3), including *gávdnat* ‘find’, shown in (3c).

- (2) a. Sii jáhkket álddagas-a cahkkeh-an dola.  
 3PL.NOM think.PRES.3PL lightning-SG.ACC spark-PAST.PTC fire.SG.ACC  
 ‘They think that the lightning sparked the fire.’
- b. Son dadjá sin ipmird-it olbmu-id balu.  
 3SG.NOM say.PRES.3SG 3PL.ACC understand-INF person-PL.GEN fear.SG.ACC  
 ‘S/he says that they understand people’s fear.’
- c. Elle muitala beroštumi lassán-eamen.  
 Elle tell.PRES.3SG interest.SG.ACC grow-PROG  
 ‘Elle says that the interest is growing.’
- (3) a. Dovdá earáid šadda-min gierdemeahttum-in.  
 feel.PRES.3SG other.PL.ACC become-PROG impatient-ESS  
 ‘S/he feels that the others are getting impatient.’
- b. Báifáhka gulan muhtim-a boahti-men hoahpu-s.  
 suddenly hear.PRES.1SG somebody-SG.ACC come-PROG hurry-SG.LOC  
 ‘Suddenly I hear somebody coming in a hurry.’
- c. Nisu gávna-i máná-s veallá-min seajgga-s.  
 woman.SG.NOM find-PAST.3SG child.SG.ACC-POSS.3SG lie-PROG bed-SG.LOC  
 ‘The woman found her child lying in bed.’
- d. Mii leat oaidná-n sin bilid-it luonddu.  
 we be.PRES.1PL see-PAST.PTC 3PL.ACC destroy-INF nature.SG.ACC  
 ‘We have seen them destroy nature.’

In these examples we also see the three forms that the embedded verb in North Sámi ECM constructions can take: the past participle, as in (2a), the infinitive, as in (2b) and (3d), and the progressive (traditionally called *aktio essive*), as in (2c) and in (3a–c).<sup>5</sup> Concerning the distribution of these forms, there is a general consensus in the grammars that the past participle can be embedded under any verb, whereas the infinitive is embedded under matrix verbs of saying and cognition and the progressive is embedded under experiencer verbs (Bergsland 1961:102, Sammallahti 2005:92, Svonni 2018:136, 231).

As for the temporal interpretations of these forms, descriptive grammars and scholarly works on North Sámi all agree that the the past participle places the embedded event before the higher event (Nielsen ([1926] 1979:396, Bergsland 1961:102, Nickel 1990:441). Sammallahti (2005:92), using the term “terminative aspect”, states that the past participle indicates that the event denoted by the embedded clause is completed. This is repeated in Nickel & Sammallahti (2011:264). Nickel (1990:440) says that he infinitive normally gets a future interpretation, but it might also coincide temporally with the higher clause. The progressive is said to express temporal coincidence with the higher event (Nielsen ([1926] 1979:384, Nickel 1990:442).<sup>6</sup> Sammallahti (2005:92) and Nickel & Sammallahti (2011:263, 265) state that the infinitive and the progressive both denote non-completed events, so that no distinction is observed between these forms as far as their temporal properties are concerned.

<sup>5</sup> These forms can also appear as main verbs in finite clauses, in combination with various auxiliaries. For reasons of space I will not show examples of this here.

<sup>6</sup> Svonni (2015, 2018) does not comment on the temporal properties of these constructions.

Magga (1986), who discusses the syntax of non-finite clauses with infinitives in much detail, only touches briefly upon the temporal semantics, saying that the past participle corresponds to a finite clause in the past or perfect tense, whereas the infinitive and the progressive (called “gerund” in this work) both can refer to the future or coincide temporally with the matrix verb (Magga 1986:175–176).

In the following sections we will see that the generalisations found in the works mentioned above are mostly correct, but also that factors such as the aspectual properties of the lower verb and the semantics of the matrix verb can influence the temporal relation between the matrix event and the embedded event.

### 3. ECM constructions with past participles

When the verb in a North Sámi ECM complement appears in the past participle form, it denotes an event that precedes the matrix event, according to the grammars. It turns out, though, that the embedded event as a whole does not necessarily precede the matrix event. It depends on whether or not the embedded event is telic. In (4) and (5), where the lower verbs are telic (both are achievements), the embedded event is completed before the time of the matrix event.<sup>7, 8</sup>

- (4) Polliissat jáhkket soapmásiid goddá-n geatkki.  
*police.PL.NOM think.PRES.3PL somebody.PL.ACC kill-PAST.PTC wolverine.SG.ACC*  
 ‘The police think that somebody have killed the wolverine.’

- (5) Sara ii loga iež-as báltto-n girdim-is.  
*Sara.NOM NEG.3SG say.CNG self-3SG.ACC get.scared-PAST.PTC flying-SG.LOC*  
 ‘Sara says that she has not got scared of flying.’

But in (6), where the embedded verb *bargan* ‘worked’ is atelic, denoting an activity, it is possible that the activity is still going on at the time of the matrix event. However, the activity must have begun before the matrix event time. Thus, the lower clause gets a universal perfect reading, i.e. a reading where the predicate holds throughout an interval stretching from some time in the past up to the speech time (see e.g. Iatridou, Anagnostopoulou & Izvorski 2003 and the references cited there).

- (6) Son dadjá iež-as barga-n turistta-i-guin gosii olles eallima.  
*s/he say.PRES.3SG self-3SG.ACC work-PAST.PTC tourist-PL-COM almost whole life.SG.ACC*  
 ‘S/he says that s/he has worked with tourists almost all her/his life.’

In (7), the embedded predicate is stative, and in this case, we are only informed that the state held true at some time in the past, and it is left open whether it still holds:<sup>9</sup>

- (7) Son lohká buohkaid diehtá-n dan.  
*s/he say.PRES.3SG everybody.ACC know-PAST.PTC it.ACC*  
 ‘S/he says that everybody knew it.’

In the examples (4)–(7) above, the matrix verbs are verbs of speaking and thinking. These verbs do not in themselves place any restrictions on the temporal properties of the embedded predicate. Experiencer verbs

<sup>7</sup> The sentential negation in North Sámi is an auxiliary which has only finite forms. Consequently, non-finite clauses cannot host sentential negation. The negation has to be expressed in the matrix clause instead, as in (5). As this example also shows, the negation combines with the so-called connegative form of the following verb.

<sup>8</sup> The presence of the reflexive pronoun *iežas* in (5) suggests that at least for some speakers, the lower clause must have an overt subject even when it is coreferential with the higher subject. It cannot be phonologically empty, hence not *pro* or PRO. Examples like (i), with an unexpressed embedded subject, can however also be found:

- (i) Hansen lohká pláne-me áibbas odđa hotealla cegge-t.  
*Hansen.NOM say.PRES.3SG plan-PROG entirely new hotell.SG.ACC put.up-INF*  
 ‘Hansen says that s/he is planning to put up an entirely new hotel.’

<sup>9</sup> An anonymous reviewer points out that adverbials can have consequences for the temporal interpretations of examples like (7). That is true, but I am interested here in the temporal interpretations arising from the verb forms themselves.

are different in this respect, as we can see in (8) and (9). In (8), where the achievement verb *vuoitit* ‘win’, in the past participle form, is embedded under the experiencer verb *gullat* ‘hear’, the resulting reading is that the winning event precedes the hearing event – but what is heard is a report of the winning event, not the event itself.

- (8) Son čieru go gullá iež-as vuoitá-n 100 000 ruvno.  
*s/he cry.PRES.3SG when hear.PRES.3SG self-3SG.ACC win-PAST.PTC 100 000 crown.SG.GEN*  
 ‘S/he cries when s/he hears that s/he has won 100 000 crowns.’

Similarly, in (9) the matrix verb is the experiencer verb *oidnit* ‘see’, while the embedded verb is the achievement verb *náđustit* ‘huddle down’, in the past participle form. The interpretation is that the event of huddling down occurred before the seeing event, and consequently, what is seen is the result of the embedded event, not the event itself.

- (9) Son oinni-i ealgga náđust-an gieddá-i.  
*s/he see-PAST.3SG moose.SG.ACC huddle.down-PAST.PTC meadow-SG.ILL*  
 ‘S/he saw that the moose had huddled down in the meadow.’

More generally, when a non-finite clause with a past participle is embedded under an experiencer verb, the embedded event precedes the matrix event, and the embedded event is not directly experienced.

We can conclude that ECM clauses with past participles denote events that at least partly precede the matrix event. The event that the participle represents can however bear any temporal relation to another embedded event. In (10), the event denoted by the past participle follows the event referred to in the (finite) adverbial clause.

- (10) Larsson dadjá iež-as hirpmástuvva-n go Obama oačču  
*Larsson say.PRES.3SG self-3SG.ACC surprise-PAST.PTC when Obama get.PAST.3SG*  
*ráfi-báلكkašumi.*  
*peace-prize.SG.ACC*  
 ‘Larsson says that he was surprised when Obama got the Peace Prize.’

In (11), on the other hand, the event denoted by the embedded participle precedes the event in the adverbial clause (which in its turn precedes the matrix event).

- (11) Su áhčči muitala nieidda-s lávlu-goahhtá-n  
*3SG.GEN father.SG.NOM tell.PRES.3SG daughter.SG.ACC-POSS.3SG sing-begin-PAST.PTC*  
*ovdalgo máhtti-gođii hálla-t.*  
*before know-begin.PAST.3SG speak-INF*  
 ‘Her father says that his daughter began to sing before she began to be able to speak.’

Finally, in (12) the event denoted by the embedded participle overlaps with the event in the adverbial clause.

- (12) Filbma-dahki muitala filmma ráhkad-an go lei  
*film-maker.SG.NOM tell.PRES.3SG film.SG.ACC make-PAST.PTC when be.PAST.3SG*  
*filbma-skuvllas.*  
*film-school-SG.LOC*  
 ‘The filmmaker says that (s/he) made the film when (s/he) was at film school.’

In (13) the highest verb, a verb of saying, is in the present tense, and it embeds the past participle of the experiencer verb *gullat* ‘hear’ which in its turn embeds the past participle of the activity verb *vávjit* ‘criticize’. Now the hearing event can be simultaneous with the criticizing event, but both must precede the highest event, the event of telling.

- (13) Muitala iežas gulla-n olbmu-id vávjá-n dan.  
*tell.PRES.3SG self-3SG.ACC hear-PAST.PTC person-PL.ACC criticize-PAST.PTC it.ACC*  
 ‘S/he says that s/he has heard people criticize it.’

Summing up, the event denoted by a past participle in a North Sámi ECM construction can have any temporal relation to other embedded events, but it must at least partly precede the highest event. If the embedded event is telic, it precedes the higher event in its entirety, but if the embedded event is atelic, the requirement is only that it must have begun before the higher event.

#### 4. ECM constructions with progressive verbs

The embedded verb in a North Sámi ECM construction can however also appear in the progressive form. There is then normally temporal overlap between the event expressed in the higher clause and the event expressed in the complement clause.

As noted in many earlier works on North Sámi (see section 2), experiencer verbs often appear with non-finite complements where the verb is in the progressive form, as exemplified in (14) and (15). In (14), the lower verb denotes an activity, whereas in (15) it is an achievement verb, i.e. a verb denoting a punctual event. In both cases, the event time of the matrix clause is included in the event time of the embedded clause. For (15) this means that the interpretation of the embedded progressive is that the event is durational – stretched out in time. The verb is coerced into this reading by the progressive form.

(14) Gulan olbmuid šurra-me lášmmohallan-lanjas..  
*hear.PRES.1SG person.PL.ACC chatter-PROG gymnastics-room.SG.LOC*  
 ‘I hear people chattering in the gymnastics room.’

(15) Jovni ja Liisá oaidniba táksi jávka-me.  
*Jovni and Liisá see.PRES.3DU taxi.SG.ACC disappear-PROG*  
 ‘Jovni and Liisá see the taxi disappearing.’

Verbs of saying and cognition can however also embed progressive verbs.<sup>10</sup> There is then also normally temporal overlap between the matrix event and the embedded event. This is illustrated by examples (16) and (17), where the embedded predicates are stative, and the states denoted by the lower predicates must hold at the time of the reported utterances.

(16) Lohká jiena lea-men erenoamáš čielggas-in Operadálu-s.  
*say.PRES.3SG sound.SG.ACC be-PROG especially clear-ESS opera-building-SG.LOC*  
 ‘S/he says that the sound is especially clear in the Opera building.’

(17) Sara dadjá iež-as illud-eame gulla-t logaldallam-iid.  
*Sara.NOM say.PRES.3SG self-3SG.ACC look.forward-PROG hear-INF lecture-PL.ACC*  
 ‘Sara says that she is looking forward to hearing the lectures.’

When the embedded verb denotes an activity or process, the interpretation is that the activity or process is ongoing at the time of the matrix event. This holds when the matrix verb is in the present tense, as in (18) and (19), and when it is in the past tense, as in (20).

(18) Sylvi lohká iež-as studere-min.  
*Sylvi.NOM say.PRES.3SG self-3SG.ACC study-PROG*  
 ‘Sylvi says that she is studying.’

<sup>10</sup> Some speakers prefer an infinitival *leat* ‘be’ accompanying the progressive in these cases. It has been suggested to me that at least in progressive ECM complements following verbs of saying and cognition, there is always an infinitival auxiliary *leat* ‘be’ in front of the progressive verb, whether or not it is spelled out. It is striking, though, that in the SIKOR corpus (see fn. 2) there are altogether three occurrences of *leat* between the accusative and the progressive in an ECM complement of the verbs *dadjat* ‘say’ or *lohkat* ‘say’. By comparison, there are 104 cases without *leat*. In order to maintain the idea of an elided *leat*, it must be explained why ellipsis is so dominant in the texts. Sammallahti (2005:150) notes, though, that an infinitival *leat* ‘be’ is now also sometimes seen with embedded past participles.

- (19) Ellen muiŋal-a beroštumi lassán-eamen.  
*Ellen tell-PRES.3SG interest.SG.ACC increase-PROG*  
 ‘Elle says that the interest is increasing.’
- (20) Eadni várra doaivvu-i mu manna-me hivsseg-ii.  
*mother.SG.NOM maybe think-PAST.3SG 1SG.ACC go-PROG lavatory-SG.ILL*  
 ‘Maybe mother thought that I was going to the lavatory.’

In (21), the embedded progressive is an achievement verb, and it gets a habitual reading, again overlapping with the matrix event:

- (21) Deanu Hotealla ii loga iež-as vuovdi-min koarttaid..  
*Deanu Hotel NEG.3SG say.CNG self-3SG.ACC sell-PROG card-PL.ACC*  
 ‘Deanu Hotel says that they do not sell cards.’

An iterated, generic or habitual reading is of course also possible with activity verbs, as in (22):

- (22) Mun loavttán bures go oainnán su dánse-me.  
*I pass.time.PRES.1SG well when see.PRES.1SG 3SG.ACC dance-PROG*  
 ‘I have a nice time when I watch him/her dancing.’

It turns out, however, that the time of the embedded event can be shifted forwards or backwards by adverbials, at least when the matrix verb is a verb of saying or cognition. In (23), the matrix verb is in the present tense, but the temporal clause inside the non-finite complement clause denotes an event that is in the past relative to the matrix event, and the event denoted by the progressive *oaddimin* ‘sleeping’ is taken to coincide with this past event, not with the matrix event.

- (23) Son lohká iež-as oaddi-min go telefudna ringi-i.  
*s/he say.PRES.3SG self-3SG.ACC sleep-PROG when phone.SG.NOM ring-PAST.3SG*  
 ‘S/he says that s/he was sleeping when the phone rang.’

Similarly, in (24) the complement clause contains the adverbial *gaskavahkku* ‘on Wednesday’, and as a result, the progressive *manname* ‘going’ denotes an event that will take place on Wednesday. In this case, the embedded event is in the future relative to the matrix event.

- (24) Nutti lohká iež-as manna-me Álttesjávra-i gaskavahkku.  
*Nutti say.PRES.3SG self-3SG.ACC go-PROG Álttesjávri-ILL Wednesday.GEN*  
 ‘Nutti says that he is going to Álttesjávri on Wednesday.’

Thus, the generalisation that a progressive complement clause denotes an event that coincides with the matrix event is not exceptionless. It seems to hold true of progressive complement clauses that are embedded under experiencer verbs. But when a progressive complement clause is embedded under a verb of saying or cognition, then an adverbial in the lower clause may introduce a time which is different from the time of the matrix event, with the result that the time of the event denoted by the progressive coincides with the time of the adverbial instead. In the absence of elements that shift the time of the lower clause the reading is however one of temporal coincidence.

## 5. ECM constructions with infinitives

We will now turn to North Sámi ECM constructions with embedded infinitives. These are known to have variable temporal interpretations – the infinitive can denote an event in the future relative to the matrix event, but it can also overlap temporally with that event. The question is then if the choice between the future and the overlapping reading is free, or if it depends on other factors. This is what I will look at more closely in the following.

Contrary to claims in earlier works on North Sámi (see section 2), infinitival ECM complement clauses can be embedded under experiencer verbs. The infinitive will then be interpreted as denoting an

event that overlaps with the matrix event. This holds regardless of whether the lower verb is stative, as in (25), punctual, as in (26), or dynamic and durational, as in (27).

- (25) Son dovdá iež-as máhtti-t sáme-giela bures.  
*s/he feel.PRES.3SG self-3SG.ACC know-INF sámi-language.ACC well*  
 ‘S/he feels that s/he knows the Sámi language well.’
- (26) Mii oinniimet Norgga vuoti-t Brasiil-a badjel.  
*we see.PAST.1PL Norway.ACC win-INF Brazil-GEN over*  
 ‘We saw Norway beat Brazil.’
- (27) Lei máilmmi somá beassa-t gulla-t Elina juoiga-t.  
*was very fun get.to-INF hear-INF Elin.ACC juoigat-INF*  
 ‘It was great fun getting to hear Elin *juoigat*<sup>11</sup>.’

The example in (28) appears to be an exception, since the embedded clause denotes a future event relative to the matrix event, although the matrix verb is *oaidnit* ‘see’. However, *oaidnit* is used as a cognition verb here, just like *see* in the English translation. Thus, (28) is no exception after all, since infinitives embedded under verbs of cognition can have a future interpretation relative to the matrix verb. In this particular case the future interpretation stems from the verb *šaddat*, which often is a futural verb.

- (28) Muhto oainn-án dan šadda-t váttis-in.  
*but see-PRES.1SG it.ACC become-INF difficult-ESS*  
 ‘But I see that it will be difficult.’

The availability of a future reading of an infinitival clause embedded under a verb of saying or cognition depends partly on the lexical aspect of the embedded verb. When an embedded infinitival verb denotes a state, this state overlaps temporally with the higher event. This is illustrated in the examples below. The verbs *guoskat* ‘concern’ in (29), *dovdat* ‘feel’ in (30), *liikot* ‘like’ in (31) and *dárbbasit* ‘need’ in (32) are all stative, and in each case, the state overlaps with the matrix event. More precisely, the time of the matrix event is included in the time span in which the state holds.

- (29) ON-komitéa dadjá dán guoska-t eami-álbmog-i-idda.  
*UN-committee.SG.NOM say.PRES.3SG this.ACC concern-INF indigenous-people-PL-ILL*  
 ‘The UN committee says that this concerns indigenous peoples.’
- (30) Son maddái dadjá iež-as dovdá-t beahtahallan.  
*s/he also say.PRES.3SG self-3SG.ACC feel-INF disappointed*  
 ‘S/he also says that s/he feels disappointed.’
- (31) Sii dadjet iež-aset liiko-t sudno musihkki-i.  
*they say.PRES.3PL self-3PL.ACC like-INF 3DU.GEN music-SG.ILL*  
 ‘They say that they like their music.’
- (32) Son lea čielgasit dadja-n iež-as dárbbas-it bargo-ráfi.  
*s/he be.PRES.3SG clearly say-PAST.PTC self-3SG.ACC need-INF work-peace.SG.ACC*  
 ‘S/he has said clearly that s/he needs peace to work.’

When an embedded infinitival verb has a habitual or generic reading, there is also temporal overlap with the higher event. This is not surprising, since we know that habituals and generics are stative (Krifka et al. 1995). In (33)–(37) below, the embedded clauses all have infinitival verbs. The embedded clauses in (33)–(36) represent habitual events, whereas the embedded clause in (37) is generic. They all denote events that coincide temporally with the matrix event.

<sup>11</sup> To *juoigat* is to sing in the traditional Sámi style.

- (33) Nils lohká iežas hárjehalla-t spáppa čiekča-t  
*Nils.NOM say.PRES.3SG self-3SG.ACC practice-INF ball.SG.ACC kick-INF*  
 njeallje geardde vahku-s.  
*four.SG.GEN time.SG.GEN week-SG.LOC*  
 ‘Nils says that he practices football four times a week.’
- (34) Ánde dadjá iež-as vuoiŋŋast-it go beassá juoigga-st-it.  
*Ánde.NOM say.PRES.3SG self-3SG.ACC relax-INF when get.to.PRES.3SG juoigga-DIM-INF*  
 ‘Ánde says that he relaxes when he gets to *juoigat* a little.’
- (35) Vuoddji loga-i iežas barga-t fabrihka-s.  
*driver.SG.NOM say-PAST.3SG self-3SG.ACC work-INF factory-SG.LOC*  
 ‘The driver said that s/he worked in a/the factory.’
- (36) Ollugat dadjet iež-aset lohka-t ja čállit sámegiela  
*many.PL.NOM say.PRES.3PL self-3PL.ACC read-INF and write-INF Sámi-language-SG.ACC*  
 hui bures.  
*very well*  
 ‘Many say that they read and write Sámi very well.’
- (37) Olstad ii oainne vearju-id čoavdi-t maidege.  
*Olstad.NOM NEG.3SG see.CNG weapon-PL.ACC solve-INF anything.ACC*  
 ‘Olstad doesn’t think that weapons solve anything.’

But apart from habitual and generic uses, the interpretation of dynamic infinitival verbs in complement clauses embedded under verbs of saying and cognition depends on the context. In (38), the adverbial *boahhte jagi* ‘next year’ makes it clear that a future interpretation of the embedded verb *divrut* ‘become (more) expensive’ is intended.

- (38) Čeahpi-t doivot bensiinna divru-t vel eambo  
*expert-PL.NOM think.PRES.3PL petrol.SG.ACC expensive-INCH-INF even more*  
 boahhte jagi.  
*coming year.SG.GEN*  
 ‘Experts think that petrol will get even more expensive next year.’

In the absence of temporal adverbials, however, the interpretation of embedded infinitival clauses mostly depends on world knowledge in combination with the overall lexical context. In (39), the most plausible interpretation is one where the event denoted by the embedded infinitival clause coincides with the matrix event, whereas in (40), on the preferred interpretation the embedded event is in the future relative to the matrix event:

- (39) In jáhke du váldi-t mu sávaldaga-id bealljái-ge!  
*NEG.ISG think.CNG you.ACC take-INF my wish-PL.ACC ear.SG.ILL-even*  
 ‘I don’t think that you are even listening to my wishes.’
- (40) Eamit ballá isid-a jápmi-t giddagas-as.  
*wife.SG.NOM fear.PRES.3SG husband-SG.ACC die-INF prison-SG.LOC*  
 ‘The wife fears that the husband will die in prison.’

In (41), the matrix clause is in the past perfect, and the embedded infinitival clause denotes an event which is in the future relative to the past matrix event, but again, this is more due to the lexical content than to the grammar:

- (41) In lea-n jáhkká-n Kristina váldi-t medálja.  
*NEG.ISG be-PTC think-PTC Kristina.ACC take-INF medal.SG.ACC*  
 ‘I had not thought that Kristina would take a medal.’



In (42), the embedded clause is ambiguous between a simultaneous reading and a futural reading, and it turns out that the preferences vary between speakers, based on verb meanings and possibly also on the demonstrative:

- (42) Mun doaivvun                    min        lihkostuvva-t dainna.  
*I        hope/think.PRES.ISG IPL.ACC succeed-INF it.COM*  
 ‘I hope/think that we will succeed/are succeeding with it.’

When it comes to the example in (43), however, there are no preferences. The embedded infinitival clause is completely ambiguous – it can refer to a present situation or to a future situation – and there are no lexical or other clues that could lead speakers to favour one interpretation over the other. Only more context could disambiguate the clause.

- (43) Ballet                    mirkku-id        golga-t        johki-i.  
*fear.PRES.3PL poison-PL.ACC flow-INF river-SG.ILL*  
 ‘They fear that the poisons are flowing/will flow into the river.’

Summing up, we have seen that in ECM constructions with an infinitival verb embedded under an experiencer verb, the interpretation is necessarily one of temporal coincidence. If the matrix verb is a verb of saying or cognition and the embedded infinitival verb is stative, there is also temporal overlap between them. But if the matrix verb is a verb of saying or cognition and the embedded infinitival verb is dynamic, then the infinitival verb can denote an event that overlaps with the matrix event or an event that is in the future relative to the matrix event. The infinitival verb in itself is ambiguous, and in cases where one temporal interpretation is favoured over the other, this follows from the linguistic and/or non-linguistic context.

## 6. Conclusions

In North Sámi, ECM complements can be selected by verbs of saying and cognition and by experiencer verbs. Three verb forms can appear in these complements: the past participle, the progressive and the infinitive. In this paper I have looked more closely at the temporal interpretations that these forms give rise to and compared my findings to the descriptions found in the grammars of the language.

Concerning the past participle in ECM constructions, the grammars say that it denotes an event that precedes the matrix event. It turns out, though, that this is strictly correct only in cases where the past participle is a telic verb. If the past participle instead is an atelic verb, the event that it denotes may still be ongoing at the time of the matrix event, although it must have begun before the matrix event.

ECM complements with progressive verbs are said to denote events that coincide temporally with the matrix event. This holds true of progressive verbs embedded under experiencer verbs, but if the matrix verb is a verb of saying or cognition, the time of the embedded event can be shifted forwards or backwards by adverbials, giving an interpretation where the embedded progressive is not simultaneous with the matrix event. The embedded event overlaps with the matrix event only in the absence of such adverbials.

The temporal interpretation of infinitival complement clauses depends on the semantic class of the matrix verb and on the lexical aspect of the embedded verb. If the matrix verb is an experiencer verb, there is temporal overlap between the matrix event and the embedded event. This is also the reading that arises if the lower verb is stative, or if it is habitual or generic, irrespective of the properties of the matrix verb. If the matrix verb is a verb of saying or cognition, there is temporal overlap with embedded stative verbs, and with verbs with habitual or generic interpretation. But if a dynamic infinitival verb is embedded under a verb of saying or cognition, then the embedded verb can have a simultaneous or a future reading relative to the matrix verb. Only the context, linguistic or non-linguistic, can serve to select one reading in such cases.

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