

# Inari Saami verbal agreement<sup>1</sup>

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## 1 Introduction

Inari Saami is unusual in that it has a split agreement system: a finite verb is conjugated for *full* or *partial* agreement. The choice of paradigm is determined mainly by animacy: the verb fully agrees with nouns that denote animates and partially with nouns that denote inanimates. This paper describes the Inari Saami agreement system and provides a lexicalist analysis.

Another goal of this paper is to determine the exact nature of the agreement trigger. Consider the sentence in (1):

- (1) Párnááh sierâðeh meecist.  
children.NOM play.PL forest.LOC  
'The children are playing in the forest.' (Inari Saami)

In (1), the noun *párnááh* triggers agreement. This is thought of as subject agreement: *párnááh* is an unproblematic subject since it agrees with the verb and bears nominative case. It is also in the typical subject position: Inari Saami has relatively free word order, but is canonically SVO. For word order, agreement and case marking as standard subjecthood diagnostics, see Keenan (1975) and others. In section 3 below, I introduce examples where it is not so clear which element is the subject. I argue that the NP which triggers agreement is always the subject, regardless of case marking and linear order. The data examined are relevant for the question of whether grammatical functions should have an independent status in the grammar. The Inari Saami agreement facts indicate that it is indeed necessary to posit entities like subjects in our grammatical models.

Finally, this paper briefly compares the agreement marking systems in Inari Saami and the related language Finnish. In particular, the possessive constructions will be compared. I conclude that although the possessive constructions of the two languages are superficially very similar, they are in fact fundamentally different, as distinct NPs are grammaticalized as the subject.

## 2 Verbal agreement in Inari Saami

### 2.1 Full and partial agreement

Inari Saami finite verbs agree in three persons and three numbers, as is shown in the present tense paradigms for *leðe* 'to be' in (2) and *kuá'lástâð* 'to fish' (3):

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(2) *‘to be’, present tense, indicative*

	SINGULAR	DUAL	PLURAL
<b>1</b>	lam	láán	lep
<b>2</b>	lah	leppee	leppeδ
<b>3</b>	lii	lava	láá

(3) *‘to fish’, present tense, indicative*

	SINGULAR	DUAL	PLURAL
<b>1</b>	kuá’lástam	kuá’lásteen	kuá’lástep
<b>2</b>	kuá’lástah	kuá’lástvettee	kuá’lástvettedδ
<b>3</b>	kuá’láást	kuá’lástava	kuá’lásteh

Personal pronouns also appear in three persons and three numbers. Table 4 gives the nominative case forms of the personal pronouns:

(4) *Personal pronouns, nominative case*

	SINGULAR	DUAL	PLURAL
<b>1</b>	mun	muoi	mij
<b>2</b>	tun	tuoi	tij
<b>3</b>	sun	suoi	sij

Non-pronominal nouns only inflect for singular and plural; they do not have a dual form. Consider the examples in (5):

- (5) a. Almai      kuá’láást onne.  
 man.NOM.SG fish.3SG today  
 ‘The man is fishing today.’
- b. Almah      kuá’lástava onne.  
 man.NOM.PL fish.3DU today  
 ‘The two men are fishing today.’
- c. Almah      kuá’lásteh onne.  
 man.NOM.PL fish.3PL today  
 ‘The men are fishing today.’

When the subject is a non-pronominal noun and the verb has dual agreement marking, the subject is in its morphological plural form, but it is interpreted as dual.

In addition to the full agreement paradigm exemplified in (2–3), Inari Saami also has a partial agreement paradigm. The full and the partial agreement paradigms for the verb *leðe* ‘to be’ in present indicative are given in (6):

(6)

	<b>full</b>	<b>partial</b>
SG 1	<i>lam</i>	<i>lii</i>
2	<i>lah</i>	<i>lii</i>
3	<i>lii</i>	<i>lii</i>
DU 1	<i>láán</i>	<i>láá</i>
2	<i>leppee</i>	<i>láá</i>
3	<i>lava</i>	<i>láá</i>
PL 1	<i>lep</i>	<i>láá</i>
2	<i>leppeδ</i>	<i>láá</i>
3	<i>láá</i>	<i>láá</i>

As shown in (6), the third person singular verb can occur with any singular subject, and the third person plural verb form can occur with any dual or plural subject. However, unlike many other languages, Inari Saami has no *default* form. In other words, in Inari Saami there is no single form (for example, third person singular) which can be used with all persons and numbers.

The distribution of the partial agreement forms is restricted by animacy. The subjects in (7) are animate and the subjects in (8) are inanimate:

(7) ANIMATE SUBJECT:

- a. Meejist lava uábbi já viljá.  
forest.LOC are.DU sister.NOM and brother.NOM  
'In the forest are my sister and brother.'
- b. Kyehti almaa láin meecist.  
two man were.3DU forest.LOC  
'Two men were in the forest.'

(8) INANIMATE SUBJECT:

- a. Riddoost láá kyehti keeδgi.  
beach.LOC are.3PL two rock  
'On the beach are two rocks.'
- b. Táálust láá kyehti vi'ste.  
house.LOC are.3PL two room  
'There are two rooms in the house.'
- c. Kyehti stuorra keeδgi láá meecist.  
two big rock are.3PL forest.LOC  
'Two big rocks are in the forest.'

The examples in (7) have animate subjects and the verb is dual, whereas the examples in (8) have inanimate subjects and plural agreement marking. These examples illustrate a general pattern: animates trigger full agreement and inanimates trigger partial agreement.

Example (9) further illustrates the difference in agreement as it is triggered by animacy (example (9) is taken from Mattus's 1987 translation into Inari Saami of Johan Jernsletten and Sverre Hatle's introductory North Saami reading book):

- (9) Ohtii láin kyehti viiljaš. Sunnuu noomah lijji Juvvá já  
 once were.3DU two brother their.3DU name.PL were.3PL J. and  
 Pächčin.  
 P.  
 ‘Once upon a time, there were two brothers. Their names were Juvvá and  
 Pächčin.’

The animate NPS in (7) and (9) are all human. NPs that denote animals can trigger both full and partial agreement. This is illustrated in (10):

- (10) a. Kyehti poccu ruáttáin/ryettih meecist.  
 two reindeer ran.3DU/ran.3PL forest.LOC  
 ‘Two reindeer ran in the forest.’  
 b. Puásui já peenuv lava/láá meecist.  
 reindeer and dog are.3DU/are.3PL forest.LOC  
 ‘The reindeer and the dog are in the forest.’

The subjects in (10) are reindeer and dogs, and both full and partial agreement are possible. This is typical for animacy splits: animals often have the option of patterning with humans, especially if they are considered personified. Cross-linguistically, ‘higher-level’ animals (e.g., pets and livestock) tend to pattern with humans, whereas ‘lower-level’ animals (e.g., mice) pattern with inanimates. This does not appear to be the case in Inari Saami, where all animals have the option of patterning with humans.

Sometimes partial agreement is used even when the subject is human, as illustrated in (11):

- (11) a. Muste lava/láá kyehti viiljá.  
 I.LOC are.3DU/are.3PL two brother  
 ‘I have two brothers.’  
 b. Táálust lava/láá kyehti ulmuu.  
 house.LOC are.3DU/3PL two person  
 ‘There are two people in the house.’  
 c. Kyehti almaa pooðijn/pottii.  
 two man came.3DU/3PL  
 ‘Two men arrived.’

Most examples of partial agreement with humans in our data collection occur in existential constructions and possessive constructions. This indicates that there is a correlation between agreement marking and the *specificity* of the subject.<sup>2</sup> Existential and possessive constructions provide frames where non-specific readings are likely. It is notoriously difficult to elicit judgments on specificity from native speakers, but some additional evidence comes from examples such as (12):

- (12) Must lava kyehti čeesi kiäh lava pargoost Helsigst.  
 I.LOC are.3DU two uncle who.NOM.PL are.DU work.LOC Helsinki.LOC  
 ‘I have two uncles who work in Helsinki.’

<sup>2</sup>Thanks to Pekka Sammallahti for helping me investigate the relevance of specificity. For specificity and verbal agreement in North Saami, see Sammallahti (in preparation), *Course Reader*.

A specific reading tends to be favored when the noun in question is modified by a relative clause. The fact that speakers strongly prefer the dual form (*lava*) in (12) thus supports the hypothesis that specificity is relevant for agreement. Also relevant is the fact that personal pronouns, which are inherently specific, almost always appear with full agreement:

- (13) a. Tun lah meecist.  
 you.NOM.SG are.2SG forest.LOC  
 ‘You are in the forest.’  
 b. Mun tuubdâm maŋgâ ulmuu.  
 I know many person  
 ‘I know many people.’

The fact that personal pronouns normally trigger full agreement adds further evidence to the relevance of specificity. On rare occasions, personal pronouns do, however, occur with partial agreement:

- (14) a. Tun jieh lah ohtuu, tust lam/lii mun.  
 you.SG.NOM not.2SG be.PRT alone you.SG.LOC am.1SG/is.3SG I.NOM  
 ‘You are not alone, you’ve got me.’  
 b. Ovdil Piäkkâ lâi ohtuu, mutâ tääl sust leppeδ/láá tij.  
 before P. was.3SG alone, but now he.LOC are.2PL/are.3PL you.NOM.PL  
 ‘Pekka was alone before, but now he’s got you.’

Partial agreement with pronouns only occurs in expressions where the NP triggering agreement follows the verb. NPs often receive non-specific readings in such contexts, but only specific readings should be available for personal pronouns. It is possible that the possibility of partial agreement arises with the lack of topicality associated with the post-verbal NP. This claim gains support from the difference in grammaticality judgments in (15):

- (15) a. ?Meejist lâi tun.  
 forest.LOC was.3SG you.NOM.SG  
 ‘In the forest were you.’  
 b. \*Tun lâi meecist.  
 you.NOM.SG was.3SG forest.LOC

Topicality has previously been argued to be directly connected to specific readings (Portner 2002).

Another hypothesis for why partial agreement is sometimes possible with personal pronouns is that the speakers are influenced by their knowledge of Finnish. Finnish does not have full agreement in the possessive and existential constructions. All speakers of Inari Saami are also fully competent speakers of Finnish. However, note that Finnish has *default* agreement, with one default form, unlike the Inari Saami partial agreement paradigm. The Finnish system is illustrated with the present tense indicative paradigm for the verb *olla* ‘to be’ in (16):

(16) **Finnish:**

	<b>full</b>	<b>default</b>
SG 1	<i>olen</i>	<i>on</i>
2	<i>olet</i>	"
3	<i>on</i>	"
PL 1	<i>olemme</i>	"
2	<i>olette</i>	"
3	<i>ovat</i>	"

Inari Saami speakers never use the third person singular verb form for dual or plural subjects. In other words, Inari Saami always has partial agreement and never just default agreement, which would perhaps be expected if the variation with pronominals (or human subjects in general) were to be explained as a language contact phenomenon.<sup>3</sup>

In sum, Inari Saami finite verbs agree fully or partially with the subject nominal. In the partial agreement paradigm, the third person singular form covers all singular subjects, and the third person plural form occurs with all dual and plural subjects. Whether the full or partial agreement paradigm is employed is determined first and foremost by animacy: inanimate subjects trigger partial agreement. This generalization is not sufficient to explain all the data, as animate subjects occasionally trigger partial agreement: even subjects as high up on the animacy hierarchy as personal pronouns can take partial agreement. The available data indicate that *specificity* explains the possibility of partial agreement with animates: only NPs with specific readings trigger full agreement. Finally, it is important to note that Inari Saami verbs always display *some* agreement; the language does not have default agreement.

## 2.2 A lexical analysis

This section provides a lexicalist analysis of the generalizations presented in the previous section. For the analysis, I employ the framework of Lexical-Functional Grammar (LFG; Kaplan and Bresnan 1982, Dalrymple et al. 1995, Bresnan 2001, Dalrymple 2001), since LFG provides an explicit and formally well-understood theory of the lexicon. The discussion is kept quite general and makes minimal use of LFG-specific formal devices.<sup>4</sup> Before I turn to the Inari Saami analysis, I briefly go over some notational and theoretical points that are adopted in LFG.

The main focus here is on the lexical entries. Each lexical entry includes a specification of the form (e.g., *cats*), the syntactic category (e.g., N), and the necessary feature specifications (e.g., NUM PL). The lexical entries will be presented as in (17):

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<sup>3</sup>A third possible hypothesis is that definiteness is relevant. Inari Saami does not mark definiteness on its NPs, but the idea would be that human nominals with a definite interpretation trigger full agreement, and human nominals with an indefinite interpretation do not. This hypothesis is supported by the fact that animate and definite nominals often pattern together cross-linguistically (see, e.g., Comrie 1981, Chapter 6.) However, the fact that personal pronouns may trigger partial agreement (see (11b)) shows that this hypothesis is incorrect, as personal pronouns have a definite interpretation.

<sup>4</sup>For more sophisticated treatments of agreement within LFG, see Dalrymple and Kaplan 2000 and others.

$$(17) \quad \text{cats: N} \quad \begin{array}{l} (\uparrow \text{ PRED}) = \text{'cat'} \\ (\uparrow \text{ NUM}) = \text{PL} \end{array}$$

The arrow ( $\uparrow$ ) refers to the functional structure (to be discussed directly below) of the mother node in the tree and will not be relevant to any of the points made below. The PRED feature is an identifier and a pointer to the semantics of a given word. The value of the PRED feature also contains the subcategorization frame of the predicate.

Words are syntactically combined in c(onstituent)-structure, which is modelled with phrase structure trees. The lexical information of the words in the tree is then mapped onto another level of syntactic information: f(unctional)-structure. F-structure is formally modelled with feature structures. The f-structure representation for the sentence in (18) is given in (19):

$$(18) \quad \text{Cats purr.}$$

$$(19) \quad \left[ \begin{array}{ll} \text{PRED} & \text{'purr } \langle \langle \text{SUBJ} \rangle \rangle' \\ \text{TENSE} & \text{PRES} \\ \text{SUBJ} & \left[ \begin{array}{ll} \text{PRED} & \text{'cat'} \\ \text{NUM} & \text{PL} \end{array} \right] \end{array} \right]$$

As illustrated in (19), an f-structure can contain other f-structures, namely the feature structures containing information about syntactic functions such as SUBJ(ECT), OBJ(ECT), OBL(IQUE) and ADJ(UNCT). This is the level of grammar where it is possible to make direct reference to syntactic functions for relations such as binding, control, and — crucially for this paper — agreement.

The features of lexical entries can *merge* or *unify* in a single functional structure. For example, a verb may contribute information about its subject, which maps onto the SUBJ f-structure. It is then crucial that the information the verb provides is compatible with the information contributed by the subject itself. Conflicting information leads to an ill-formed functional structure by the principle of Uniqueness:

$$(20) \quad \textbf{Uniqueness}$$

Every attribute has a unique value.

All identical features can unify. Every PRED feature has a unique value, and so PRED features can never unify.

Let us now turn to the Inari Saami data. Consider first the lexical entry for *láán* (21):

$$(21) \quad \text{láán, V:} \quad \begin{array}{l} (\uparrow \text{ PRED}) = \text{'be'} \\ (\uparrow \text{ TENSE}) = \text{PRESENT} \\ (\uparrow \text{ MOOD}) = \text{INDICATIVE} \\ (\uparrow \text{ SUBJ NUM}) = \text{DU} \\ (\uparrow \text{ SUBJ PERS}) = \text{1} \\ (\uparrow \text{ SUBJ HUM}) = \text{+} \end{array}$$

The lexical entry for *láán* is only compatible with first person dual subjects that are human. Note that can be argued that the human specification is superfluous for first and second person subjects. This feature can be removed from the first and second person lexical entries given here without further consequences for the analysis.

The lexical entry for the first person dual pronoun *muoi* is given in (22):

- (22) *muoi*, D: (↑ PRED) = ‘pro’  
 (↑ NUM) = DU  
 (↑ PERS) = 1  
 (↑ CASE) = NOM  
 (↑ HUM) = +

The featural representation of a sentence like *muoi láán meecist* ‘we are in the forest’ is given in (23):

- (23) 
$$\left[ \begin{array}{l} \text{PRED} \quad \text{‘be’} \\ \text{TENSE} \quad \text{PRESENT} \\ \text{MOOD} \quad \text{INDICATIVE} \\ \\ \text{SUBJ} \quad \left[ \begin{array}{l} \text{PRED} \quad \text{‘pro’} \\ \text{NUM} \quad \text{DU} \\ \text{PERS} \quad 1 \\ \text{HUM} \quad + \\ \text{CASE} \quad \text{NOM} \end{array} \right] \\ \\ \text{OBL} \quad \left[ \begin{array}{l} \text{PRED} \quad \text{‘forest’} \\ \text{CASE} \quad \text{LOC} \end{array} \right] \end{array} \right]$$

As we see, the feature information in (21) does not conflict with the information in (22), so the feature structure in (23) is well-formed.

The lexical entry for the third person dual form *lava* is given in (24):

- (24) *lava*, V: (↑ PRED) = ‘be’  
 (↑ TENSE) = PRESENT  
 (↑ MOOD) = INDICATIVE  
 (↑ SUBJ NUM) = DU  
 (↑ SUBJ PERS) = 3  
 (↑ SUBJ HUM) = +

The lexical entry for *lava* is only compatible with third person dual subjects that are positively specified for the feature HUM(AN).

Let us turn for a moment to the choice of the attribute label HUM for the relevant animacy feature. The label HUM seems a natural choice for personal pronouns and first and second person verbs (as in (22–23) above), since they will always refer to humans (setting aside the possibility of personification). However, recall from the previous section that *lava* can be used with animals (although animals may also trigger partial agreement in which case the verb would be *láá*). If we maintain the feature HUM, lexical entries for animals will have to be specified with a disjunctive feature value for HUM: (↑ HUM) = + ∨ −. Another option is an analysis where



- (27) *l̥i̥i*, V: (↑ PRED) = ‘be’  
 (↑ TENSE) = PRESENT  
 (↑ MOOD) = INDICATIVE  
 (↑ SUBJ NUM) = SG

The lexical entry for *lam* in (26) specifies that its subject is first person singular. The entry for *l̥i̥i* is specified for a singular subject, but there is no person specification. The form *l̥i̥i* is therefore compatible with all singular subjects, but not with dual and plural subjects. Since *l̥i̥i* is more specific than *l̥áá* (it has a number specification), it will be chosen over *l̥áá* whenever the subject is singular. The entry for *l̥i̥i* is not specified for PERSON, as both first and second pronouns take *l̥i̥i* in the partial paradigm.

The sample lexical entries above are all forms of the verb *leðe* ‘to be’. It should be understood that the forms of other verbs have lexical entries parallel to those seen above. For illustration, the second person dual entry for the verb *moonnâð* ‘to go’ is given in its past tense form in (28):

- (28) *moonaid*: V (↑ PRED) = ‘go’  
 (↑ TENSE) = PAST  
 (↑ MOOD) = INDICATIVE  
 (↑ SUBJ NUM) = DU  
 (↑ SUBJ PERS) = 2  
 (↑ SUBJ HUM) = +

By Uniqueness, only second person dual subjects can cooccur with the verb form in (28).

One piece of the puzzle is still left unaccounted for. Recall from the previous section that human subjects can trigger partial agreement. This is rare, but possible and so must be taken into account. The entries for *l̥i̥i* and *l̥áá* given above are left sufficiently underspecified to allow first and second person singular pronouns to occur with *l̥i̥i* and all dual and plural subjects to occur with *l̥áá*. It was argued above that the full agreement paradigm is only compatible with NPs with specific readings. If this is the case, it can easily be captured in our current analysis with an additional lexical specification on the full agreement forms. This is illustrated with the lexical entry for *čokkáám* in (29):

- (29) *čokkáám*: V (↑ PRED) = ‘sit’  
 (↑ TENSE) = PRESENT  
 (↑ MOOD) = INDICATIVE  
 (↑ SUBJ NUM) = SG  
 (↑ SUBJ PERS) = 1  
 (↑ SUBJ HUM) = +  
 (↑ SUBJ SPECIFIC) = +

The feature (↑ SUBJ SPECIFIC) = + ensures that the subject has a specific reading. If the subject is not specific, this lexical entry cannot be used. The specificity information should probably be included in the semantic representation, rather than in the f-structural information. However, it is included in the f-structure here for the sake of simplicity.

In sum, section 2.1 showed that Inari Saami verbs always have overt agreement morphology, and the verb may agree fully or partially. It was further shown that animacy crucially determines which agreement paradigm is employed: inanimate subjects never trigger full agreement. This section has shown how the data of the previous section can be captured by a lexical feature analysis and the adoption of Uniqueness and morphological blocking. Note that these aspects of the analysis are widely employed outside the grammatical framework of LFG: Most current theories put heavy emphasis on the lexicon, morphological blocking has been referred to in various syntactic theories, and Uniqueness is a general property of feature logics. LFG is used in this paper, but it should be clear that the analysis can be extended to any theory that employs the necessary tools.

### 3 Subject agreement

In the previous sections, it was assumed without discussion that the verb agrees (fully or partially) with the *subject*. This claim deserves further attention, as there are some possible objections. One objection is theory-dependent, as some theories do not adopt grammatical functions (e.g., subjects and object) as part of their theoretical apparatus. For example, in transformational theories (e.g., Standard Theory or Principles and Parameters), grammatical functions are simply assumed to be convenient labels for elements that are actually formally defined by their phrase structural position (but see the interesting discussions in Davies and Dubinsky 2001). Other theories allow direct reference to grammatical functions; either as primitives as in Relational Grammar, or as derived entities, as in LFG and Head-driven Phrase Structure Grammar (HPSG).<sup>5</sup> Here, I will maintain the assumption that reference to subjecthood is legitimate. Readers more comfortable with transformational assumptions can think of ‘subject’ as a given phrase structural position; be it [Spec, IP], [Spec, AgrSP], or some other phrasal position.

There is a further objection to the claim that the agreement trigger is the subject, and this objection is theory-independent: even if we allow reference to subjecthood, it is not necessarily the case that agreement is dependent on grammatical function at all. Consider the examples in (30-31):<sup>6</sup>

- (30) Suoi lava tyebbin.  
 they.NOM.DU are.2DU there  
 ‘They (the two of them) are over there.’

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<sup>5</sup>In LFG’s Lexical-Mapping Theory (LMT; Bresnan and Kanerva 1989, Bresnan and Moshi 1990, Bresnan and Zaenen 1990), GFs are composed of more primitive features, and so GFs are not themselves primitives of the theory. With LMT, GFs can be derived from argument structure features. However, GFs are still ‘visible’ at a separate syntactic level (f-structure), where they are governed by constraints and principles distinct from those that govern other levels of information (see the appendix). Similarly, the list values of HPSG’s VALENCE features are dependent on the ordering of items on the ARG-ST list, which in turn is determined by the obliqueness hierarchy. The obliqueness hierarchy makes reference to thematic roles (see Pollard and Sag 1994, Chapter 9, and Manning and Sag 1999).

<sup>6</sup>In this section, it does not matter whether the agreement is full or partial. The main point is that the verb always agrees and we are trying to determine what triggers the agreement.

- (31) Muste lah tun.  
 I.LOC are.2SG you.NOM.SG  
 ‘I’ve got you.’

In example (30), it is natural to think of the agreement trigger *suoi* as the subject: it is in the canonical linear position of the subject (before the verb), it is the topic, it has the highest thematic role, and it bears nominative case. However, the subject status of *tun* in (31) is not as clear. The pronoun *tun* bears nominative case, but it is not in the canonical subject position, it is not the topic and it does not have the highest thematic role: the possessed entity is lower on the thematic hierarchy than the possessor. The postverbal NP in the possessive construction thus displays only two of the prototypical subjecthood characteristics: it agrees with the verb and it bears nominative case. An alternative take on the possessive construction would be to analyze the NP bearing the highest thematic role (*muste* in (31)) as the subject. A third possibility is, of course, to reject the notion of subjecthood completely.

Examples such as (31) thus call into question the claim that the NP which triggers agreement is the subject. The question is then: what does trigger agreement? It is clear from (31) that agreement is not determined by the highest thematic role. Nor is it determined by the word order: in (30) the verb agrees with the nominal on its left, and in (31) the verb agrees with the nominal on its right. The unmarked word order in Inari Saami is SVO, but the word order is generally quite free. Even so, it is not possible to switch the order of the NPs in possessive constructions such as (31) without significantly changing the meaning. The remaining possibilities are that the verb agrees with the subject, or else that the verb agrees with the NP which bears nominative case.

The nominative case hypothesis turns out to be problematic, due to the effect numerals have on case marking. When a noun is modified by a number, it is always in singular and it bears either genitive or partitive case, as illustrated in (32):

(32)	<b>number</b>	<b>noun</b>	<b>verb</b>
one reindeer	<i>ohtâ</i>	<i>puásui</i> NOM.SG	<i>lii</i>
two reindeer	<i>kyehti</i>	<i>poccuu</i> GEN.SG	<i>lava/láá</i>
three reindeer	<i>kulmâ</i>	”	<i>láá</i>
four reindeer	<i>nelji</i>	”	”
five reindeer	<i>vittâ</i>	”	”
six reindeer	<i>kuttâ</i>	”	”
seven reindeer	<i>čiččâm</i>	<i>poc cud</i> PART.SG	”
eight reindeer	<i>käävci</i>	”	”
↓			
twenty-one reindeer	<i>kyehtlovohtâ</i>	”	”
↓			
...			

As indicated in (32), the numbers 2–6 select for an accusative/genitive noun and the number 7 and higher selects for a partitive noun. For further discussion of the numerals and case marking in Inari Saami, see Nelson and Toivonen (2003).

The verb can agree with a nominal which is assigned a case other than nominative by a numeral. This is illustrated by the examples in (33–34):<sup>7</sup>

- (33)      *Kyehti poccuu*                      *ruáttáin meecist.*  
 two    reindeer.SG.GEN ran.3DU forest.LOC  
 ‘Two reindeer ran in the forest.’
- (34)      *Meecist kaččáin kyehti almaa.*  
 forest.LOC ran.3DU two    man.SG.GEN  
 ‘Two men ran in the forest.’

In order to rescue our hypothesis that the verb always agrees with the nominative element, we could try to argue that the verb actually agrees with the number itself, which is indeed in nominative case in examples (33–34). There are four problems with this proposal. First, we saw in the previous section that agreement is influenced by animacy: an inanimate noun triggers partial agreement and an animate noun triggers full agreement. This effect remains when the nominal is modified by a number, as becomes clear when we compare the examples in (33) to the examples in (8) above. In (33), *poccuu* and *almaa* are animate and the verb is dual. The noun *keedgi* in (8), however, is inanimate and the verb is plural. As animacy is a feature of nouns, not numerals, it seems that the nouns and not the numbers agree with the verb.

Second, the nominal and not the number is the semantic head, and there is often a one-to-one correspondence between syntactic and semantic heads.

A third piece of evidence that the noun, not the number, displays the relevant case marking comes from examples with lexical and semantic case:

- (35)      *Kuulmâ poccust*                      *lii ennuu purrâmuš.*  
 three.GEN reindeer.LOC.SG is.3SG much food.NOM.SG  
 ‘The three reindeer have a lot of food.’

In (35), the NP bears locative case. Importantly, the noun alone displays this case marking and the numeral does not. There is some variation in the case marking on the number across the nominal paradigm. For example, the number in (35) is not in nominative case, unlike the numbers we have seen above. However, the numeral does not carry the crucial locative case, which is what marks the function of the NP in (35). As this is typical for NPs with lexical and semantic case marking, there is no reason to assume that the number is crucial for displaying the case of the full NP.

A fourth reason to reject the proposal that the verb actually agrees with the numerals and not the nouns is that the postverbal numerals in (36–37) bear nominative case, and yet they do not trigger agreement:

- (36)      *Kyehti poccuu*                      *puurráin vittâ porkanâ.*  
 two.NOM reindeer.SG.ACC/GEN ate.3DU five.NOM carrot.SG.GEN  
 ‘Two reindeer ate five carrots.’
- (37)      *Mun oinim kyehti stuorrâ poccuu.*  
 I.NOM saw.1SG two.NOM big    reindeer.SG.GEN  
 ‘I saw two big reindeer.’

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<sup>7</sup>The verb *ruáttáin* is used for animals and *kaččáin* is used for people.

If nominative case is the single factor that is relevant for agreement, we would expect it to be possible for the verb to agree with *vittâ porkanâ* in (36) and *kyehti stuorrâ poccuu* in (37). In other words, there should be some optionality in agreement in these examples, the verbs should be able to agree with either NP. However, there is no such optionality; only *kyehti poccuu* and *mun* can trigger agreement in (36–37).

Now, in an attempt to rescue the hypothesis that verbs always agree with an element bearing nominative case, one might propose that nominative and accusative numbers are homophonous. The idea would then be that *vittâ* and *kyehti* in (36–37) are in accusative case, which happens to be homophonous with nominative case for numerals. This is unlikely, as genitive numbers are not homophonous with nominatives, and accusative and genitives normally pattern together morphologically. The proposal that nominative and accusative numerals are homophonous leads to the following morphological pattern:

(38)		<b>numerals</b>	<b>nouns</b>	<b>pronouns</b>
	<b>nominative</b>	vittâ	kedgi	mun
	<b>accusative</b>	vittâ (= nom)	keeđgi (= gen)	muu (= gen)
	<b>genitive</b>	viidâ	keeđgi	muu

As we see in (38), the hypothesis that nominative and accusative numbers are homophonous results in different patterns for nouns and pronouns on the one hand and numerals on the other. This hypothesis is forced if we wish to maintain that nominative numerals trigger agreement, but there is no independent evidence that numerals pattern differently from nominals in the manner illustrated in (38).

Furthermore, the hypothesis of homophony of accusative and nominative in numerals only is rendered quite unlikely if we also consider the case marking of the words *maŋgâ* many, *kalle* how many, and *muád'di* ‘a couple, several’. Like the numbers 2–6, the words *maŋgâ*, *kalle* and *muád'di* demand that the noun they modify be genitive singular, regardless of whether the NP is a subject or an object. Now, following our discussion for the numerals, we could posit that these three words are actually the heads and they thus show the crucial nominative/accusative case marking. However, like numerals, these words stand in the same form regardless of whether they are part of the subject or the object:

(39) *Maŋgâ almaa čokkájjii tobbeen.*  
 many man.SG.GEN sat.3PL there  
 ‘many men were sitting over there.’

(40) *Mun uáinám maŋgâ almaa.*  
 I.NOM see.1SG many man.SG.GEN  
 ‘I see many men.’

It is clear that both numbers and the triplet *maŋgâ*, *kalle* and *muád'di* demand that the noun they modify bear a specific case (genitive). However, in order to rescue our hypothesis that the case marking of the entire NP shows up on the modifier, not the noun, we must in addition assume that nominative and accusative case just happen to be homophonous in precisely these groups of words. Recall that conflating nominative/accusative case is not the norm in Inari Saami (see (38)). The case marking that a word assigns and the case marking that a word bears should

be completely independent factors, and it seems a highly unlikely coincidence that numerals and the three words mentioned here would just happen to pattern the same in both regards.

I want to conclude this brief discussion of numerals and case marking with a few final comments. I have argued here that NPs with numbers provide an argument against the claim that agreement is directly predictable from nominative case marking. A noun that would normally have nominative case bears another case when modified by a numeral. I have further argued that it is not the case that the *numeral* then bears the relevant case marking, which can then trigger agreement. Although I have argued against these possibilities, I do not mean to say that numerals are completely irrelevant for agreement. They are in fact crucial in that they provide information about number: all numerals other than the number one ensure that the NP has the number specification DUAL (for the number two) and PLURAL (for all other numbers).<sup>8</sup>

Let us now summarize this section. In Inari Saami, it is not the case that there is a one-to-one correspondence between nominative case and agreement marking. It is also not the case that agreement is determined by word order or semantic role. As neither of these factors can be singled out as the relevant linguistic trigger for agreement, I conclude that direct reference to grammatical functions, or more specifically, to subjecthood, is needed in order to capture the correct generalization which governs Inari Saami agreement. In other words, Inari Saami verbs agree with their grammatical subjects.<sup>9</sup>

Before turning to the next section, I want to briefly address the issue of subjecthood tests. Although such tests work very well for some languages (see, e.g., the discussion of Icelandic in Zaenen et al. 1985), these tests are notoriously difficult to apply to Finno-Ugric languages in general (see the discussion in Sands and Campbell 2001). I have not been able to successfully apply any of the traditional tests in Inari Saami – the results never come out as clearly identifying one phrase as the subject. For example, the possessive suffix diagnostic that Magga (1978) applies in North Saami does not work for Inari Saami, where possessive suffixes are falling out of use completely. Where possessive suffixes are still used in Inari Saami, they do not necessarily corefer with the subject. In fact, they can refer to someone not mentioned at all in the sentence.

In order to illustrate the difficulties with syntactic subjecthood tests in Inari Saami, let us consider verbs that (at least roughly) correspond to English raising verbs. I will use examples with the verb *nevttiđ* ‘look like; seem like’ here. When examining a verb like *nevttiđ*, it may at first appear as if raising straightforwardly shows that the possessor in the tricky possessive construction is the subject (which would go against what is assumed in this paper):

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<sup>8</sup>This can be captured formally in our current analysis in the following way: only singular nouns which have nominative case are specified for NUM SG. All other singular nouns are unspecified for number. The numerals are inserted under a co-head (possibly *Det*) which is annotated ( $\uparrow = \downarrow$ ). They are lexically specified for the feature ( $\uparrow$ NUM) = DU or ( $\uparrow$ NUM) = PL. The other information is specified under an ADJUNCT (or SPEC) function: ( $\uparrow$ ADJ PRED) = ‘two’; ( $\uparrow$ ADJ CASE) = NOM; etc.

<sup>9</sup>For present purposes, we can assume that the verbs identify the appropriate syntactic function for each participant. The interested reader is referred to the Appendix for a discussion of how the semantic arguments of a verb are mapped onto syntactic functions in Lexical-Mapping Theory. The appendix specifically refers to some of the Inari Saami data discussed above.

- (41) Uábistâm                    nevtih    lemin                    uδδâ kammuuh.  
 sister.1SG-POSSESSOR seem.3PL be.PARTICIPLE new shoes.NOM.PL  
 ‘My sister seems to have new shoes.’

In (41), *uábistâm*, not *kammuuh*, precedes the supposed raising verb *nevtih*, but note that *nevtih* agrees with *kammuuh*. Recall also that word order is relatively free in Inari Saami and so cannot be taken as a reliable diagnostic of grammatical function. However, if we assume that agreement is a reliable subjecthood test, then (41) in fact indicates that *kammuuh*, the possessed NP, is the subject.

Consider further (42):

- (42) Meeclist            nevtih    lemin                    ennuu poccuuh.  
 forest.LOC.SG seem.3PL be.PARTICIPLE much reindeer.NOM.PL  
 ‘There seem to be a lot of reindeer in the forest.’

The word order in (42) would indicate that *meeclist* is the subject in (42), but we know that word order is not a reliable diagnostic, and there is no other reason to assume that the place expression *meeclist* in (42) is a subject. (The place expression *meeclist* does not bear nominative case, it does not hold the highest thematic role, and it does not agree with the verb.) In fact, if topicalized, any phrase can precede the verb in Inari Saami: this is true in raising expressions as well as other sentences. Again, *nevtih* agrees with *ennuu poccuuh*, which is the subject.

Raising expressions cannot be said to show anything based on their word order. If we instead rely on verbal agreement, these expressions offer support for the analysis adopted in this paper, where subjecthood and agreement go hand in hand: the raising verbs agree with the same NP that the main verb would agree with in a corresponding non-raising sentence. In other words, if anything, Inari Saami raising shows that the current hypothesis is correct in assuming that the possessed phrase is the subject of the possessive construction.

There are various potential problems with using data such as (41–42) as subjecthood tests in Inari Saami, so I will not dwell on raising here. I will simply conclude by admitting that I have not found any diagnostics that work well for determining grammatical functions in Inari Saami.

## 4 A comparison with Finnish

It is instructive to compare the Inari Saami data with data from Finnish. In the previous section, I concluded that verbal agreement is always triggered by grammatical subjects in Inari Saami. This section shows that this is not the case in Finnish: Finnish verbs agree only if several independent requirements are met at the same time.

Finnish grammatical functions, subjects especially, have been discussed widely in the literature (see, for example, Hakanen 1972, Hakulinen and Karlsson 1979, Vilkuna 1989, Nelson 1998, Kiparsky 2001, Helasvuo 2001). The purpose of this section is simply to bring out the main characteristics of agreement in Finnish. For more detail, examples, and important insights, I refer the interested reader to the works listed above.

Finnish verbs agree in three persons and two numbers:

- (43) Nominative pronouns and present indicative paradigm for *mennä* ‘to go’:

		pronoun	verb
SG	1	<i>minä</i>	<i>menen</i>
	2	<i>sinä</i>	<i>menet</i>
	3	<i>hän</i>	<i>menee</i>
PL	1	<i>me</i>	<i>menemme</i>
	2	<i>te</i>	<i>menette</i>
	3	<i>he</i>	<i>menevät</i>

There are three important differences between Finnish and Inari Saami. First, Finnish does not have a grammatical dual. Second, Finnish does not have partial agreement. Third, animacy is not grammaticalized in Finnish (but see Laitinen and Vilkuna 1993 and references cited there for dialects of Finnish where animacy does seem to play a role).

Finnish verbs normally agree only with nominative NPs. Consider examples (44-45), which are taken from Stenberg (1971):

- (44) Autot ajavat yleensä kovaa moottoriteillä.  
cars.NOM drive.3PL generally hard motorways.ADE  
‘Cars generally drive fast on the motorways.’
- (45) Linja-autoja kulkee nykyisin joka sunnuntai.  
buses.PART run.3SG nowadays every Sunday  
‘Nowadays, buses run every Sunday.’

In example (44), the subject carries nominative case and the verb agrees with it. In (45), the subject is in partitive case, and the verb has third person singular default agreement.

The verb also displays default agreement in existential and possessive constructions, as shown in (46–47), which are taken from Nelson (1998):

- (46) Perheeseen syntyi kauniit tytöt.  
family.ILL born.PST.3SG beautiful.NOM.PL girls.NOM  
‘To the family were born beautiful daughters.’
- (47) Koulussa on uudet opettajat.  
school.INE is.3SG new.NOM.PL teachers.NOM  
‘The school has new teachers.’

In both (46) and (47), the (post-verbal) subject is nominative, but the verb does not agree. Instead, it displays default third person singular agreement.

A further point worth noting is that pronouns in the possessive construction are in accusative case in Finnish:

- (48) Pekalla on meidät.  
Pekka.ADE is.3SG us.ACC  
‘Pekka has us.’

In (48), the possessed entity *meidät* has accusative case. As exemplified in (31) above, pronominals in the corresponding Inari Saami possessive construction have nominative case.

The table below summarizes the characteristics of Inari Saami and Finnish agreement:

(49)	Inari Saami	Finnish
partial agreement	✓	
default agreement		✓
animacy effects	✓	
agreement in possessive construction	✓	
agreement in existential construction	✓	
possessed nouns in nominative case	✓	✓
possessed pronouns in nominative case	✓	

One of the main differences between the two languages follows from the fact that Inari Saami has partial agreement: Inari Saami always displays agreement, but Finnish does not.

The correlation between case, agreement marking and grammatical function is fairly straightforward in Inari Saami, but not in Finnish. In Inari Saami, the verb always agrees with the subject, which bears nominative case unless the regular subject case marking is overridden by a case assigned by a numeral. In Finnish, however, the situation is more complicated. In Finnish as well as in Inari Saami the verb never agrees with a non-subject. However, in Finnish the agreement trigger is also required to be in a the prototypical subject position and to bear nominative case in order to trigger agreement.<sup>10</sup> In other words, several requirements need to be met in order for Finnish verbs to display agreement.

The difference between Inari Saami and Finnish can be illustrated with a comparison of the possessive construction in the two languages. Compare the Inari Saami sentences in (50) to the Finnish examples in (51):

(50) Inari Saami:

- a. Muste lava puásui já peenuv.  
I.LOC are.3DU reindeer.NOM and dog.NOM  
'I have a reindeer and a dog.'
- b. Muste lah tun.  
I.LOC are.2SG you.NOM.SG  
'I have you.'

(51) Finnish:

- a. Minulla on poro ja koira.  
I.ADE is.3SG reindeer.NOM and dog.NOM  
'I have a reindeer and a dog.'
- b. Minulla on sinut.  
I.ADE is.3SG you.ACC.SG  
'I have you.'

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<sup>10</sup>There are some cases where the verb can agree with a partitive subject, if the subject is interpreted as definite.

Examples (50–51) illustrate two previously mentioned differences between the possessive constructions in the two languages. First, in Inari Saami, the verb always agrees with the possessed item, whereas in Finnish it does not. Second, in Inari Saami, the possessed item is always nominative, but in Finnish, it is accusative if it is a personal pronoun (and also often partitive, especially if it is plural). These data are consistent with the conclusion that the verb always agrees with the subject in Inari Saami, and the subject normally has nominative case.

The possessed item thus seems to be the subject in Inari Saami. Which argument is the subject in the possessive construction in Finnish? The possessed entity does not seem to be a good candidate for a subject in Finnish: it does not trigger agreement, it does not appear in the prototypical subject position, it is not necessarily in nominative case, and it is not the highest role on the thematic hierarchy (see Nikanne 1990 for the relevance of the thematic hierarchy for subjecthood in Finnish). Moreover, there is evidence which suggests that the possessor is the subject, since the possessor shares the normal discourse properties of subjects (Helasvuo 2001), and it also shares some syntactic properties with other subjects; for example, it can bind anaphoric possessive suffixes (Hakanen 1972, Kiparsky 2001). There are thus good reasons to accept the possessor as the subject in the possessive construction. However, the verb does not agree with the possessor in (51). The examples in (52) are ungrammatical:

- (52) a. \*Minulla olen poro ja koira.  
 I.ADE is.1SG reindeer.NOM and dog.NOM
- b. \*Minulla olen sinut.  
 I.ADE is.1SG you.ACC

In sum, the verb in the possessive construction does not agree with either argument in Finnish. The verb cannot agree with the possessed NP because that NP is not the subject, and it cannot agree with the possessor because the possessor does not carry nominative case. This again illustrates that several conditions must hold in order for the verb to agree with the subject in Finnish, and if those conditions do not hold, the verb displays default agreement.

Although the possessive construction in Inari Saami is superficially very similar to the same construction in Finnish, the two are actually quite different, since they differ in case marking, agreement marking, and grammatical function. It is commonly assumed that possessive constructions that are similar to locative constructions actually were once a type of locative construction. An expression meaning something like ‘on/with me is a book’ can be historically reanalyzed and come to mean ‘I have a book’. The possessed item was originally the subject, but it has come to be analyzed as the object, with the possessor taking over the subject role (Comrie 1981). Since this is a common historical development, it is not surprising to find two related languages where one has a grammaticalized possessor subject and the other still treats the possessed item as the subject.<sup>11</sup>

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<sup>11</sup>Comrie discusses Maltese and Classical Arabic (1981, Section 10.4), and the parallels to Finnish and Inari Saami are striking. See also Freeze (1992).

## 5 Conclusion

This paper has examined verbal agreement marking in Inari Saami. Inari Saami has both full and partial agreement marking, and animacy is an important factor in determining which paradigm is employed. The data are captured in this paper with a lexical analysis cast in LFG. The analysis makes crucial use of lexical blocking.

An important question posed in this paper concerned the agreement trigger. It was argued that verbal agreement is not dependent on word order, thematic roles or case marking. I concluded that reference to grammatical functions, specifically subjects, is necessary in order to understand the verbal agreement system in Inari Saami.

The Inari Saami agreement system was then briefly compared to agreement marking in Finnish. The Inari Saami system at first seems more intriguing and complex than the Finnish one, as Inari Saami displays the cross-linguistically unusual characteristic of partial agreement. Finnish instead has full and default agreement, which is not rare cross-linguistically. However, a closer examination reveals that Finnish agreement is in a sense more complex than Inari Saami agreement. Inari Saami verbs always agree, and they always agree with the subject. In Finnish on the other hand, several conditions must be met in order for a verb to inflect for agreement. The generalization for Finnish is, roughly, that the verb only agrees with the grammatical subject when the subject is in its prototypical phrase-structural position and when it bears nominative case.

In a comparison of Finnish and Inari Saami, the possessive construction is especially noteworthy: in Inari Saami, the verb agrees with the nominative possessed NP, whereas the verb displays default agreement in Finnish. I suggested that this is because the possessor has been grammaticalized as the subject in Finnish, but not in Inari Saami.

As the Finno-Ugric languages tend to have rich morphological case marking, it is common for scholars interested in grammatical relations to focus on case. However, in this paper I hope to have shown that examining agreement marking may also prove rewarding.

## Appendix: Lexical Mapping Theory

We saw in section 2.2 that LFG adopts a level of syntactic structure which makes direct reference to syntactic functions, such as SUBJ and OBJ. The generalization that governs Inari Saami agreement is therefore straightforwardly accounted for within this framework. In early LFG, syntactic functions were assumed to be primitive syntactic building blocks in the grammar (see Bresnan 1982a, and others). Modern LFG adopts Lexical Mapping Theory (LMT; Bresnan and Kanerva 1989, Bresnan and Moshi 1990, Bresnan and Zaenen 1990, Alsina 1996, Bresnan 2001, and others), where the basic argument functions are defined in terms of the features  $[\pm r]$  and  $[\pm o]$ . The feature  $[+r]$  singles out the grammatical functions that are semantically *restricted*. The syntactic functions that are marked  $[-r]$  are not semantically restricted; in fact, they have the option of being associated with no semantic role at all. The feature  $[+o]$  refers to the *objective* functions, i.e., functions that complement transitive V or P. The basic argument functions are thus grouped as shown in (53):

(53)

	$-r$	$+r$
$-o$	SUBJ	OBL <sub><math>\theta</math></sub>
$+o$	OBJ	OBJ <sub><math>\theta</math></sub>

The Patientlike roles are classified as  $[-r]$ , secondary patientlike roles are classified as  $[+o]$  and other semantic roles are  $[-o]$ . This classification can be overridden by lexical specifications.

LMT provides a theory for the mapping between a(rgument)-structure and f-structure. A-structure is a syntactic level of representation which links the lexical semantics of predicates and their arguments to f-structure. The arguments of a given predicate are ordered for their relevant prominence according to the thematic hierarchy:

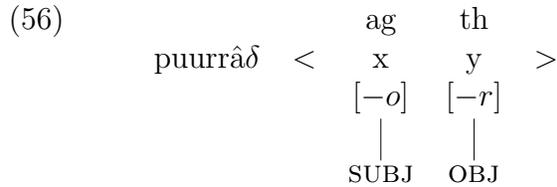
- (54)     **Thematic Hierarchy:**  
 agent  $\succ$  beneficiary  $\succ$  experiencer/goal  $\succ$  instr  $\succ$  patient/theme  $\succ$  loc

The mapping between a-structure and f-structure is governed by the principles in (55), adapted from Bresnan (2001, 311). The logical subject is defined as the most prominent semantic role of a predicator.

- (55)     **Mapping Principles:**
- a. Subject roles:
    - i. The logical subject marked  $[-o]$  is mapped onto SUBJ when initial in the a-structure;  
otherwise:
    - ii. The semantic role marked with  $[-r]$  is mapped onto SUBJ.
  - b. Other roles are mapped onto the lowest compatible function (according to the following partial ordering: SUBJ  $\succ$  OBJ, OBL <sub>$\theta$</sub>   $\succ$  OBJ <sub>$\theta$</sub> ).

One of the results of LMT is that the argument which is the highest on the thematic hierarchy will be the SUBJ, unless some lexical specification interferes.

For a simple example, let us consider the Inari Saami verb *puurrâδ* ‘to eat’:



The first argument of *puurrâδ* is an agent and thus not a patientlike role. It is specified [-o] and gets mapped onto SUBJ by mapping principle (55ai). The second argument is a patientlike role. It is classified as [-r] and gets mapped onto the object function.

For the sake of concreteness, I assume the following straightforward nominative-accusative default case marking principles for Inari Saami:<sup>12</sup>

- (57) Default case marking:
- a. SUBJ is assigned NOM case
  - b. OBJ is assigned ACC case.

The principles in (57) can be overridden by lexical specifications and case assigned by numerals. In our example (56), the SUBJ will bear nominative case, unless there is a numeral within the SUBJ NP. I set aside here the interesting issues that are raised by semantic case.

It is easy to see how LMT together with the principles in (57) accounts for simple examples involving verbs such as *puurrâδ*. We will now consider a more intricate case, namely the possessive construction, exemplified by (31) above, repeated here as (58):

- (58) Muste lah tun.  
 I.LOC are.2SG you.NOM.DU  
 ‘I’ve got you.’

This is an interesting construction, as the subject is the possessed item, which is less prominent thematically than the possessor (see, e.g., Mohanan 1994,177-182). Any analysis of the Inari Saami possessive construction must account for the following generalizations:

- (59)
- The possessed item is the subject.
  - The possessor must precede the verb.
  - The possessed item bears nominative case.
  - The possessor bears locative case.

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<sup>12</sup>This is by no means the only possible way to handle morphological case marking in LFG. In fact, there is a rich literature on case in this framework, see, e.g., Zaenen et al. (1985), Mohanan (1994) and Nordlinger (1998).

Recall that the possessive construction parallels the existential construction in Inari Saami: the possessor mirrors the properties of the location and the possessed item mirrors the theme. I will therefore adopt an analysis where the possessive construction is an instance of the existential construction, which is in turn a kind of locative construction (see Freeze 1992 for a discussion of cross-linguistic parallels between existentials, locatives and possessives).<sup>13</sup> The argument structure for *leðe* ‘to be’ will be mapped out as in (60):

$$(60) \quad \begin{array}{ccccc} & & \text{theme} & \text{location} & \\ & & \text{x} & \text{y} & \\ le\delta e & < & & & > \\ & & [-r] & [-o] & \\ & & | & | & \\ & & \text{SUBJ} & \text{OBL} & \end{array}$$

The theme is a patientlike role and is specified  $[-r]$ . The location is not a patientlike role and so receives the specification  $[-o]$ . As  $[-o]$  is not initial in the a-structure,  $[-r]$  is mapped onto the subject role. The lowest compatible function for  $[-o]$  is oblique, and so the theme/possessed will be mapped onto subject and the location/possessor will be mapped onto an oblique role.

The mapping in (60) follows from the independently motivated principles of LMT, and it accounts for most of the characteristics of the possessive/existential construction. However, we still must account for the trait that distinguishes possessives/existentials from other locatives: the oblique NP precedes the verb. This can be done lexically. Consider the lexical entry for existential/possessive *lah* in (61):

$$(61) \quad \begin{array}{l} lah: V \quad (\uparrow \text{PRED}) = \text{‘be (SUBJ, OBL)’} \\ \quad (\uparrow \text{TENSE}) = \text{PRESENT} \\ \quad (\uparrow \text{MOOD}) = \text{INDICATIVE} \\ \quad (\uparrow \text{SUBJ NUM}) = \text{SG} \\ \quad (\uparrow \text{SUBJ PERS}) = 2 \\ \quad (\uparrow \text{SUBJ HUM}) = + \\ \quad (\uparrow \text{OBL}) =_c (\uparrow \text{TOP}) \\ \quad (\uparrow \text{OBL CASE}) = \text{LOC} \end{array}$$

In sum, this analysis of the possessive/existential construction assumes the oblique must be a topic and thus in topic position, which is at the beginning of the clause (for concreteness, we can assume that this position is [Spec, CP]). Finally, possessive/existential *leðe* specifies that its OBL bears locative case.

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<sup>13</sup>Thanks to an anonymous reviewer for helpful comments on the LMT account of this construction.

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