

Marked Adpositions

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Abstract

This paper discusses the partitive-genitive case alternation of Finnish adpositions. This case alternation is explained in terms of bidirectional alignment of markedness in form and meaning. Marked PP meanings are assigned partitive case, unmarked ones genitive case.

1 Introduction¹

This paper explores the relation of spatial adpositions and case in Finnish. Two major classes of adpositions in Finnish can be distinguished, one combining with genitive case, the other with partitive case. A third, very small set can combine with both. The meaning of these latter adpositions depends on whether they are combined with partitive case or genitive case, as illustrated in the following examples:

- (1) *juoks-i-mme ympäri kaupunki-a*
run-PAST-1PL around city-PART
'We were running around in the city'
- (2) *juoks-i-mme kaupungi-n ympäri*
run-PAST-1PL city-GEN around
'We ran around the city'

In Section 2 and 3, I will show what determines the markedness of adpositional phrases (PPs). In Section 4, I will give a short introduction of bidirectional OT, with which I will analyze the Finnish data in Section 5. Before ending with conclusions, I will shortly discuss the role of

¹ Many thanks to Lotte Hogeweg, Helen de Hoop, Peter de Swart, and Joost Zwarts, as well as to three anonymous reviewers, for useful comments on an earlier version of this paper. I would especially like to thank Seppo Kittilä for discussion of the Finnish examples. Also, I gratefully acknowledge the Netherlands Organisation of Scientific Research (NWO) for financial support, grant 220-70-003, principal investigator Helen de Hoop (PIONIER-project "Case cross-linguistically").

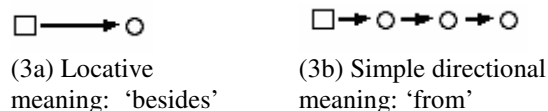
word order (i.e., pre- vs. postpositional use of the adposition).

2 Qualities of Adpositional Phrases: Markedness of Meaning

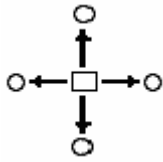
There are different ways to diagnose markedness. De Hoop et al. (2003) mention amongst others *order of acquisition* (the unmarked form is acquired before the marked one), *context* (the unmarked interpretation of a form is the interpretation it gets in neutral context), *syntactic/morphological complexity* (a simple form or construction is less marked than a complex form or construction), and *frequency* (the unmarked option occurs more often than the marked one). In what follows I will use these criteria on properties of adpositions.

Spatial meaning is usually divided into locational and directional meaning. The former could be said to be less complex than the second, since directional meaning by definition implies a change in place (cf. Helmantel 1998; Jackendoff 1983). This difference in complexity is also reflected in the order of acquisition of spatial prepositions, as locatives are acquired before directionals (Bowerman and Choi 2001). I propose that some directional meaning can be even more complex. Compare the following schematizations of locative meaning (3a), simple directional meaning (3b/c), and complex directional meaning (3d). The squares represent the Ground, each round the Figure at a different moment in time.²

Figure 3. Schematizations of spatial meaning



² The notions of Figure and Ground refer to the located object and the object of reference, respectively (cf. Talmy 2001).



(3c) Simple directional meaning: 'around'



(3d) Complex directional meaning: 'around'

Following Zwarts (1997, 2003a, 2003b), we can describe the relation between a Figure and a Ground by means of vectors. The simple directional meaning puts restrictions on either the direction (in case of a straight line (3b)) or the length (in case of a circle (3c)) of the vectors. Complex directional meaning imposes no restrictions whatsoever (3d). That the distinction between (3c) and (3d) is linguistically relevant can be seen in the following Ancient Greek example. In (4a), *dia* combined with the genitive case indicates a simple, straight line, whereas the combination with accusative case in (4b) refers to a complex directional meaning, in which the Ground is almost completely covered by the path:

(4a) *di' ōmou khálkeon*
 DIA shoulder:GEN bronze:N/A
égkhos êlten
 spear:N/A go:AOR.3SG
 'the spear of bronze went through his shoulder' [Ilias 4.481-2, taken from Luraghi 2003: 168]

(4b) *helixámenos dià*
 turn:PART.AOR.MID.NOM DIA
bēssas
 glen:ACC.PL.F
 'turning around through the glens' [Ilias 17.283, taken from Luraghi 2003: 171]

I argue that this difference in spatial complexity corresponds to a difference in semantic markedness, (4a) being less marked than (4b).

An adposition can be non-concrete, or non-spatial. Solstad (2002) discusses the opposition spatial - non-spatial. Comparing spatial and causal meaning of the German preposition *durch*, he shows that in an unmarked syntactic position, that is, attached at the VP or IP level, the spatial meaning of a *durch* PP wins. In a marked position, that is, attached as CP adjunct, the causal meaning wins. Following the *syntactic complexity* criterion, the spatial

meaning is unmarked, and the causal reading is marked.

It is by definition impossible to locate an abstract notion in space. As adpositions prefer a spatial meaning, an abstract PP object is more marked than a concrete one. This markedness is reflected in the complexity of the form: Prepositions that typically take abstract objects are often morphologically more complex. Examples are the following Dutch prepositions, and their English equivalents: *vanwege* 'because of', *betreffende* 'concerning', *met betrekking tot* 'with regard to', and *aangaande* 'concerning'.

Concluding this section, we can say that a PP preferably has a simple, concrete, spatial meaning.

3 Finnish Adpositions: Markedness of Form

As we want to pair meaning with form, let us look at the markedness of the form of Finnish adpositional phrases. In Finnish in general, there are more postpositions than prepositions. Postpositions combine more often with genitive case than with partitive (54 vs. 10, respectively). The prepositions have a small preference for partitive case (9 vs. 6). Also for spatial adpositions, genitive case is assigned most, as can be seen in (5) and (6):

(5) Spatial adpositions assigning genitive case: *al* 'under', *ede-/ete-* 'front', *jälke-/jälje-* 'after', *luo-* 'to', 'by', *pää-* 'on', *sisä* 'in', *ta(ka)-* 'back', *viere-* 'beside'.

(6) Spatial adpositions assigning partitive case: *koh-* 'towards', *pitkin* 'along', 'all over', *päin* 'against', *vast-* 'against', 'in the opposite direction'.

Assuming that the most frequent form is unmarked (cf. the *frequency* criterion), we can conclude that genitive case is the unmarked form for the complement of the PP in Finnish.³

Before analyzing the Finnish data in Section 5, I will first introduce Bidirectional OT, the framework I am using.

³ Another motivation for genitive being the standard case, though not pursued here, is the origin of adpositions. Postpositions deriving from nouns, like *pää* < 'head', usually take genitive case.

4 Bidirectional OT

Optimality Theory is a model of the system of the linguistic knowledge a speaker of a language has (cf. Prince and Smolensky 1993). The rules in this grammar are violable constraints, which can be in conflict with each other. Weak constraints can be violated in order to satisfy stronger ones. Each language has its own specific hierarchy of constraints. In the *Generator* possible output candidates (forms in case of production, and meanings in case of perception) are formed, that are evaluated in the *Evaluator*. The candidate that has the least serious violations of the constraints is the winner.

Bidirectional OT gives a general procedure of optimization of the relation of form and meaning, simultaneously optimizing in both directions, from meaning to form, and from form to meaning. Hence, BiOT evaluates form-meaning *pairs* (Blutner *et al.* to appear: 90-91). In bidirectional OT a form-meaning pair is called *super-optimal* if there is no other super-optimal form-meaning pair with a different (i.e. less marked) form that expresses the same meaning better, and there is no other super-optimal form-meaning pair with a different meaning that is a better interpretation of that same form. This yields two super-optimal form-meaning pairs, namely the unmarked form with the unmarked meaning, and the marked form with the marked meaning. The widely attested Markedness principle of Horn (1984) which states that marked forms in languages go with marked meanings (and unmarked forms with unmarked meanings) is thus accounted for by bidirectional OT.

In section 2 we saw which properties of a PP are marked. An unmarked PP preferably expresses a simple, concrete, spatial meaning. Put into markedness constraints, we get:

*COMPLEXITY: avoid semantic complexity
 BC (BE CONCRETE): have a concrete meaning

In my analysis, simple directional meaning violates *Complexity once, whereas complex directional meaning yields a double violation. In section 3, genitive case was shown to be the most frequent, hence unmarked form. We can put this finding in a markedness constraint on the form of the PP:

GEN: use genitive case on the object of an adposition.

5 Analysis of the Data

Now let us have a look at the Finnish data. The general distribution of spatial adpositions was given in (5) and (6) above. This general distribution seems to follow the opposition *locative-directional*: as ‘towards’, ‘along’, ‘against’ are directional and the others (roughly) locational.⁴

As illustrated in Tableau 1, directional meanings violate *Complexity, and partitive forms violate UG.⁵

Tableau 1. The general distribution

	<form, meaning>	GEN	BC	*COMPLEXITY
☞	<gen, loc>			
	<gen, dir>			*
	<part, loc>	*		
☞	<part, dir >	*		*

Since the form-meaning pair <gen, loc> is the only candidate that satisfies all constraints it is the first super-optimal pair. In a second round of optimization the pairs <gen, dir> and <part, loc> fall out, because there is another form-meaning pair, namely <gen, loc>, with either a less marked meaning that is expressed by the same form, or with a less marked form that expresses the same meaning. This yields the second super-optimal form-meaning pair, namely <part, dir> which combines the marked form with the marked meaning.

The unmarked locational meaning corresponds to the unmarked genitive form, and the marked directional one to the marked partitive. Thus, the general distribution of Finnish adpositions is accounted for.

But, as mentioned before, besides these two groups, Finnish has a third set of adpositions combining with both cases:

⁴ The following test can be used to discriminate locatives from directional adpositions: the former can be combined with the verb *to be*, the latter with verbs of motion, such as *to go*.

⁵ For further explanation on the use of tableaux, I refer to Blutner *et al.* (to appear)

(7) Adpositions taking both genitive and partitive case: *ympäri-* ‘around’, *keske-* ‘middle’, *lähe-* ‘near’, *yli(-)* ‘over’.

The meaning of such adpositions in combination with genitive case is different from that of a combination with partitive case. In what follows, I will give an account of the form-meaning pairs involving these adpositions. First, let us look at the alternation of *ympäri* ‘around’ shown in examples (1) and (2), repeated below for convenience.

- (1) *juoks-i-mme ympäri kaupunki-a*
run-PAST-1PL around city-PART
‘We were running around in the city’
- (2) *juoks-i-mme kaupungi-n ympäri*
run-PAST-1PL city-GEN around
‘We ran around the city’

In (1) *around* indicates a complex, random path comparable to the Greek example (4b), schematized in (3d). In (2) however, *around* describes a circle with the city as its centre (cf. (3c)). The constraint on complexity is playing a role in this alternation, as is illustrated in Tableau 2:

Tableau 2. *Ympäri*

	<form, meaning>	GEN	BC	*COMP LEXITY
☝	<gen, circle>			*
	<gen, criss-cross>			**
	<part, circle>	*		*
☝	<part, criss-cross>	*		**

As expected, the genitive case has the unmarked simple meaning, whereas the partitive case combines with the complex one. Simple directional meaning violates *Complexity once, as it is one step more complex than locational meaning; complex directional meaning yields a double violation.

The alternation of *keskellä* ‘in the middle’ can be explained along the same lines. Again, genitive case combines with the unmarked meaning in (9), whereas the partitive is assigned the marked notion ‘all over’ in (8):

- (8) *lelu-t o-vat*
toy-PL.NOM be.PRES-3PL

keskellä lattia-a
in.the.middle.of floor-PART
‘The toys are all over the floor’

- (9) *lelu-t ovat*
toy-PL.NOM be.PRES-3PL
lattia-n keskellä
floor-GEN in.the.middle.of
‘The toys are in the middle of the floor’
(lit. at the centre)

The third adposition to deal with is *lähellä* ‘near’. For the previous adpositions we saw that the case alternation was only used for an extended meaning. Rather unexpectedly, for *lähellä* partitive case is also possible within the simple spatial domain, as shown in (10).⁶

- (10) *auto on talo-n*
car.NOM be.SG.PRES house-GEN
lähellä (/talo-a)
near house-PART
‘The car is near the house’

As soon as the concreteness constraint BC becomes of importance, however, partitive case is used, as is clear from (11):

- (11) *ole-mme lähellä ratkaisu-a*
be.PRES-1PL near solution-PART
‘We are close to a solution’

In this example, the constraint BC comes into play. The abstract meaning combines with partitive case, whereas the concrete one can have both cases. This is shown in the following tableau, in which the unpredicted pair is indicated with a question mark:

Tableau 3. *Lähellä*

	<form, meaning>	GEN	BC	*COMP LEXITY
☝	<gen, concr>			
	<gen, abstr>		*	
?	<part, concr>	*		
☝	<part, abstr>	*	*	

⁶ Indeed, it is not always the case that there is a clear one-to-one correspondence of form and meaning. For further discussion on optionality I refer to De Hoop et al. (2003).

Finally, let us turn to *yli* ‘over’. The preposition *over* has extensively been studied for English (cf. Lakoff 1987; Brugman 1988; Dewell 1994). The more central meanings are the locative ‘be in the space above something’ and ‘be on the other side of something’, and the directional ‘starting from one side of something, go to the other side via the covering space’ and ‘starting from one side of something, go to the other side via its (top) surface’. The reading ‘to exceed something’ that ‘over’ also has, is further removed from the central meaning. In Finnish we see that the more central notions are covered by the genitive case, as is shown in (12) and (13):

(12) *lintu lentää puu-n* bird.nom
fly.pres.3sg tree- GEN
yli
over
‘The bird flies over the tree’

(13) *mies kävelee kukkula-n yli*
man live.pres.3sg hill-GEN over
‘The man lives over the hill’

Only within the extended ‘Excess’ meaning, the partitive case can occur, as can be seen in (14):

(14) *tämä-n auto-n hinta*
this-GEN car-GEN price.NOM
on yli 2500 euro-a
be.3SG.PRES over 2500 euro-PART
‘The price of this car is higher than 2500 Euro’

It is still possible to use genitive case here, but the 2500 Euro is pragmatically different for both constructions. With partitive case, it is an arbitrary amount, whereas it is precisely the amount I intended to spend on the car with the genitive. Here, the prominence of the amount makes it more concrete.

Tableau 4. *Yli* ‘exceeding’

	<form, meaning>	GEN	BC	*Compl exity
☞	<gen, concr>			
	<gen, abstr>		*	
	<part, concr >	*		
☞	<part, abstr >	*	*	

6 About Word Order

As noted above, there is a correlation between the syntactic position and case in the Finnish adpositional system. How do we know that it is not the syntactic position that determines the markedness, instead of case (cf. (1) and (2))? First, the correlation should not be taken as a strict rule, as both postpositional and prepositional *lähellä* can govern partitive case:

(15) *auto on talo-a*
car.NOM be.SG.PRES house-PART
lähellä (/ talo-a)
near house-PART
‘The car is near the house’

Other examples of the indifference of the partitive with respect to its position are *kohti* and *ennen*:

(16) *auto tul-i*
car.NOM come-3SG.PAST
minu-a kohti (/ minu-a)
1SG-PART towards 1SG-PART
‘The car was coming towards me’

(17) *hän saapu-i*
s/he.NOM arrive-3SG.PAST
minu-a ennen (/ minu-a)
1SG-PART before 1SG-PART
‘S/he arrived before me’

A more complex example is given in (18) and (19). Sometimes, the non-standard combination of partitive with a postposition yields a metaphorical reading, whereas the standard combination with a preposition yields a concrete reading:

(18) *tämä aihe on*
this.NOM topic.NOM be.3SG.PRES
minu-a lähellä
1SG-PART near/close
‘This topic is close to my heart’

(19) *tämä on*
this.NOM be.SG.PRES
lähellä minu-a
near 1SG-PART
‘This is close to me’

Hence, markedness is not just a matter of the overall less frequent use of a preposition – otherwise (19) should have the metaphorical

reading. Apparently, there is an additional constraint on the form which does not say “use postpositions rather than prepositions”, but “use postpositions for genitive case and prepositions for partitive”.

7 Conclusion

In this paper I used a bidirectional OT approach to account for the case distribution in the Finnish spatial adpositional system. I argued that adpositions in general can have a more or less marked meaning. In Finnish this markedness is reflected in the assignment of case. Partitive case, as the marked form, is assigned to marked adpositions, and the unmarked genitive case is used for the unmarked ones. Within case alternating adpositions, this same tendency is found, albeit along different lines of markedness.

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