

Spatial adpositions and partitive case in Finnish

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July 13, 2005

BA thesis Linguistics

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Preface

This bachelor thesis is written as part of the PIONIER Project ‘Case Cross-Linguistically’. I have benefited greatly from the help of my colleagues and their comments at a presentation. First of all I would like to thank Helen de Hoop for her fantastic supervising. By always giving substantial comments and keeping me on schedule she managed to get me to finish my thesis on time. Special thanks of course to my Finnish informant Seppo Kittilä who did more than I dared to expect, not only during his stay in Nijmegen as a guest of the PIONIER project but even afterwards. Furthermore, I would like to thank Joost Zwarts for his invaluable help and insight, and Peter de Swart for his comments on an earlier version.

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Abstract

Two major classes of adpositions in Finnish can be distinguished, one combining with genitive case, the other with partitive case. A very small group can combine with both. However, the meaning of these latter adpositions in combination with partitive case is not the same as it is with genitive case. In this paper I investigate this difference in meaning by testing three hypotheses. My first hypothesis states that the distribution is due to a general distinction in locative adpositions and directional ones. This indeed seems to be the general picture but cannot account for the alternations. As a second hypothesis I extend Kiparsky's (1998) analysis of partitive objects. This analysis does explain the use of some constructions very nicely, but, again, does not explain the alternations. The third hypothesis claims that the combination with partitive case is the default option for the argument of PPs, whereas the genitive combination expresses the central meaning. A case alternating spatial adposition indeed obtains the more central meaning when taking genitive case and a more extended meaning when taking partitive case. The general distribution of Finnish adpositions that exclusively combine with partitive or with genitive objects is shown to reflect this same principle.

Introduction

Most analyses of Finnish partitive case focus on its functions at the verbal phrase (VP) level. In this paper I will give an account of the partitive at the adpositional (PP) level, concentrating on PPs with a spatial meaning. Kiparsky (1998) claims that the marking of *unboundedness* is the underlying factor of aspectual and NP-related functions of the Finnish partitive. Both the head and the argument of a VP can be *unbounded* and thus yield a partitive. I will show that this analysis cannot be extended to PPs in order to explain the genitive-partitive alternation in combination with spatial adpositions. I argue that radial category theory can explain this alternation. After a short introduction of the data in Section 1, I will discuss Kiparsky's analysis in terms of *boundedness* in Section 2. In Section 3, I will introduce Zwarts's vector model for adpositional phrases, in order to give a definition of *boundedness* at PP level. In Section 4, I will show that Kiparsky's analysis cannot be extended to adpositional constructions. After introducing radial category theory in Section 5, I will show how this theory can account for the genitive-partitive alternation at PP level in Section 6. Before coming to conclusions, I will shortly revisit the object function of partitive case in Section 7.

1 Exploring the data

Spatial meaning in Finnish is mainly expressed with six local cases: inessive, adessive, elative, ablative, illative, and allative. These cases can be ordered according to the following two dimensions (Sulkala & Karjalainen, 1992: 241):

Table 1: Finnish local cases:

	Static position	Motion from	Motion to
Inside	Inessive	Elative	Illative
Outside	Adessive	Ablative	Allative

The actual meaning of a local case is more specific and diverse when it occurs in a specific context, as can be seen in the following examples: ¹

- (1) *Marjatta on talo-ssa*
Marjatta be.3SG house-INE²
'Marjatta is in the house'

- (2) *kato-ssa on lamppu*
ceiling-INE be.3SG lamp
'There is a lamp on the ceiling'

In (1) the inessive case does indeed mark the place where Marjatta is *in*. In (2) however, the lamp is not actually *in* the ceiling, It is rather hanging below or attached to the ceiling.

Besides using local cases, Finnish can express spatial meaning with adpositional phrases. In the following example, the postposition *lähellä* is used in combination with the partitive case:

- (3) *Marjatta asuu liopisto-a lähellä*
Marjatta live.3SG university-PART near
'Marjatta lives near the university'

¹ Examples (1) and (2) are taken from Sulkala and Karjalainen (1992: 242)

² Abbreviations used in this paper are: INE, inessive; ELA, elative; ILL, illative; ADE, adessive, ABL, ablative; ALL, allative; GEN, genitive, PART, partitive; NOM, nominative; SG, singular; PL, plural, PRES, present

Two major classes of adpositions in Finnish can be distinguished, one combining with genitive case, the other with partitive case. The two classes are listed in (4) and (5) respectively.

(4) *Adpositions assigning genitive case:*

<i>al</i>	‘under’
<i>ede-/ete-</i>	‘front’
<i>jälke-/jälje-</i>	‘after’
<i>kanssa</i>	‘with’
<i>luo-</i>	‘to’, ‘by’
<i>pää-</i>	‘on’
<i>sisä</i>	‘in’
<i>ta(ka)-</i>	‘back’
<i>viere-</i>	‘beside’

(5) *Adpositions assigning partitive case:*

<i>koh-</i>	‘towards’
<i>pitkin</i>	‘along’, ‘all over’
<i>päin</i>	‘against’
<i>vast-</i>	‘against’, ‘in the opposite direction’

At first sight, one might think that this distribution is due to a general distinction in locative adpositions (*in/under/beside the table* on the one hand) and directional ones (*along/all over the road, towards/against him* on the other).³ The latter would go with partitive; the former with genitive. Unfortunately, things are not that simple: In combination with adpositions as *yli-, ympäri, keske-*, and *lähe-* both genitive and partitive case can be used:

(6) *Adposition taking both genitive and partitive case:*

<i>yli(-)</i>	‘over’
<i>ympäri-</i>	‘around’
<i>keske-</i>	‘middle’
<i>lähe-</i>	‘near’

The meaning of these adpositions in combination with partitive case is not the same as it is with genitive case. Take for example *ympäri* in the examples below. In (7) *around* is only a vague region in which the running took place. In (8) however, *around* has to be understood very literal by a circle with the city as its centre:

³ The following test can be used to determine this distinction: locative adpositions can be combined with the verb ‘to be’, whereas directive ones can be combined a verbs of motion, such as ‘to go’. The distinction will be further explained in section 3.

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

Although the explanation is not that straightforward, there does seem to be an underlying semantic motivation for assigning either genitive or partitive case to the complement of the PP. At the very least, there is a semantic difference between the two possibilities (cf. (7) and (8)). In this paper I will give an account for the genitive-partitive alternation in combination with the four adpositions in (6). In the next section I will discuss Kiparsky’s (1998) analysis of the accusative-partitive alternation at VP level, in order to see whether the PP case alternation can be explained along the same lines.

2 Boundedness

The distinction between structural and lexical case has been widely accepted in linguistics (cf. Wunderlich, 2001; Kiparsky, 1998, Vainikka & Maling, 1996). Structural case is assigned at surface level in a configurational way; lexical case is assigned at a deeper level, dependent on the lexical properties of a governing head. Not all cases fit this pattern, however. There are semantically conditioned cases that pattern syntactically with structural case. These cases are not sensitive to the thematic roles assigned by the governing predicate, but to properties of the NP or VP itself.

The Finnish partitive case expresses either properties of the VP or of the NP: it has an aspectual function, assigning case to the objects of unbounded (irresultative) verbs, and a NP-related function, denoting quantitatively indeterminate NPs. In order to give a unified explanation for both functions, Kiparsky (1998) uses the notion *boundedness*. Kiparsky claims that partitive case in Finnish licenses unboundedness at VP level.

In his terms, a predicate is *intrinsically unbounded* “if it can be modified by degree adverbs such as (*some*) *more*, *a lot*, *very much*, *a bit*, *somewhat less*, *considerably*, *slightly*, referring to the *extent of a single eventuality*.” (Kiparsky, 1998: 269). The *gradability* of the event is thus the determining factor in the choice for a partitive: If an event is gradable, it is unbounded, and partitive case marking will be used on the object. To illustrate this, compare *look* in example (9) which can be modified by degree adverbs without any problems, and *got* in example (10) which becomes ungrammatical if it is modified:

- (9) Unbounded Verb: The sportsman looked at a bear (some more).
 (10) Bounded Verb: The sportsman got a bear (#some more).

The same diagnostic can be used in determining the boundedness of NPs. Quantitatively indeterminate NPs can be modified by degree adverbs, and are unbounded. Quantitatively determinate NPs on the other hand, cannot be modified.

- (11) Unbounded NP predicates: bears, coffee
 Bounded NP predicates: a bear, two bears, a lot of bears, a little coffee, the coffee

The boundedness of the VP is determined by properties of the verb and the NP. In the definition given below, Kiparsky (1998: 284) tries to capture the notion for both levels using the properties DIVISIVENESS, CUMULATIVITY, and DIVERSITY:

- (12) A predicate is UNBOUNDED iff it is both DIVISIVE and CUMULATIVE, but not DIVERSE.
- (13) a. P is DIVISIVE iff $\forall x [P(x) \wedge \neg atom(x) \rightarrow \exists y [y < x \wedge P(y)]]$
 b. P is CUMULATIVE iff $\forall x [P(x) \wedge \neg sup(x,P) \rightarrow \exists y [x < y \wedge P(y)]]$
 c. P is DIVERSE iff $\forall x \forall y [P(x) \wedge P(y) \wedge x \neq y \rightarrow \neg x < y \wedge \neg y > x]$

The requirement in (13a) dictates that a predicate P is DIVISIVE if and only if for every argument x goes, if x is predicated by P and x is not a indivisible element, then there is a smaller element y which is part of x , and which is predicated by P too. This means, argument x can be divided in smaller element(s) that are still predicated by the same predicate. The event of *painting* in (14) for example is DIVISIVE, since painting a house includes the painting of a single stone of that house.

- (14) He is painting

(13b) dictates a predicate P is CUMULATIVE if and only if for every argument x goes, if x is predicated by P and x is not the supreme element of P , then there is an argument y of which x is a part, which is predicated by P too. In other words, argument x is part of y that is predicated by the same predicate P . The same example (14) can serve as an illustration here: When painting a stone of a house, one can be said to paint the house.

The DIVERSITY requirement dictates that predicates with only atomic elements, or predicates whose elements are not related to each other by a subpart relation are bounded, although they meet the first two requirements.

Accounting for the partitive case of the object, Kiparsky (1998: 286) says that "If the verb is unbounded, its object must be partitive whether the object is unbounded or bounded. [...] A partitive object is ungrammatical if the VP is bounded, and an accusative object is ungrammatical if the VP is unbounded." The unboundedness of the VP is thus compositionally determined from the properties of the verb and the NP:

- (15) A VP predicate is unbounded if it has either an unbounded head, or an unbounded argument

The verb *get* is intrinsically bounded and *look* unbounded, as was made clear above. In Finnish, a bounded predicate is expressed with an accusative object, an unbounded predicate with a partitive one. At NP level, *the bears* is bounded and *bears* is unbounded. A bounded NP is expressed with accusative case, an unbounded NP with partitive case.

The meaning 'get the bears', (bounded V, bounded NP) is bounded. Neither the predicate nor the NP is unbounded, thus the argument is assigned accusative case:

- (16) *saa-n* *karhu-t*
 get-1SG bear-PL.ACC
 'I'll get the bears'

The meaning 'get bears' (bounded V, unbounded NP), is unbounded. Notwithstanding the boundedness of the predicate, the argument gets partitive case because of the unboundedness at NP level:

- (17) *saa-n* *karhu-j-a*
 get-1SG bear-PL-PART
 'I'll get bears'

'Looking for bears' (unbounded V, unbounded NP), is unbounded. Both the predicate and the argument are unbounded here, hence the partitive case of the argument:

- (18) *etsi-n* *karhu-j-a*
 seek-1SG bear-PL-PART
 'I'm looking for bears'

The last combination 'looking for the bears' (unbounded V, bounded NP), is expressed as in example (19):

- (19) *etsi-n* *karhu-j-a*
seek-1SG bear-PL-PART
'I'm looking for the bears'

Although the NP *the bears* in this example is *not* unbounded (it cannot be modified by degree) the argument still gets partitive case marking because of the unboundedness of the predicate. Accusative case would be ungrammatical here, as is clear from the following example:

- (20) * *etsi-n* *karhu-t*
seek-1SG bear-PL.ACC
'I'm looking for the bears'

Besides looking at partitive case marking from meaning to form, as we did in (16) - (20), we could do it the other way around, that is from form to meaning. In the following examples *ammu* can mean both 'shoot' and 'shoot at'. The irresultative reading corresponds with an object with partitive case, the resultative reading with an accusative object. However, since the *unboundedness* of the object is itself a determining factor in assigning partitive case, the sentence in (21) gets ambiguous:

- (21) *ammu-i-n* *karhu-j-a*
shot-PAST-1SG bear-PL-PART
'I shot at the bears'
or: 'I shot bears'
or: 'I shot at bears'

- (22) *ammu-i-n* *karhu-t*
shot-PAST-1SG bear-PL.ACC
'I shot the bears'

The three readings of (21) are all possible, since partitive case could be assigned because of the *unboundedness* of the verb (the first reading), because of the *unboundedness* of the NP (the second reading), or because of the *unboundedness* of both (the third reading). The accusative case in (22) however, can only occur if both the verb and the NP are *bounded*.

If we want to use the notion of *unboundedness* to explain the use of the partitive case in PPs, we should first determine whether *unboundedness* can be defined for PPs at all. But to

do so, we have to have some sort of descriptive model, with which we can analyze and classify properties of PPs. Therefore I will introduce Zwarts' vector model, which provides us with exactly such an analysis.

3 Vectors

Zwarts (1994, 1997, 2003, 2005) analyses spatial adpositions as representations of the position of a located object, the 'Figure', relative to a reference object, the 'Ground'. This representation is made by means of vectors. In this context a vector can be understood as a simple line with two characteristics: length and direction (but see Jordan (1986) for a more complete definition). It can be used to represent an axis of an object (axis vector), or to express the relative position of a Figure to a Ground (place vector). A spatial adposition then, corresponds to a set of vectors that, starting from the Ground, together form a region in which the Figure is located. Take for example Figure 1, in which three readings of English *above* are given:⁴

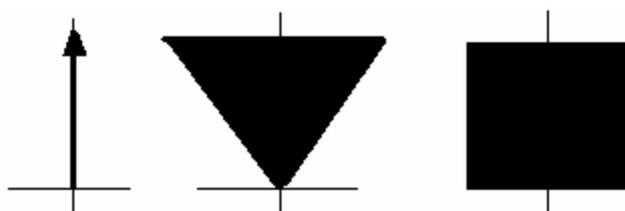


Figure 1 Three readings of 'above'

In the first reading, the region consists of the set of place vectors that, starting from some Ground (i.e. the intersection), have a vertical orientation. In the second, the region consists of the set of those vectors that have a projection (see figure (2)) on the vertical axis of the Ground that is longer than their projection on the horizontal axis. In the last reading, 'above' consists of all vectors with some projection on the vertical axis, irrespective of their horizontal orientation.

Adpositions can be either locative, or directional. Locative adpositions express a static position of the Figure in relation to the Ground. Directional adpositions express a change of place of the Figure: a movement from Ground A (source), through Ground B (route), or towards Ground C (goal); or, they express the distribution of a Figure over a Ground. Rather than regarding directional adpositions as a single vector, Zwarts sees them as sequences of positions relative to the Ground (for the motivation of this viewpoint, see Zwarts, 2005).

⁴ Figure 1 is taken from Zwarts (1997).

Directional adpositions are defined in terms of projections on axes. An axis is a set of vectors with precisely the same direction. A Ground can be given an axis and the orthogonal complement of this axis. Axis $VERT$ for example, assigns to a Ground the set of vectors that point right up⁵, and $\perp VERT$ is the horizontal axis HOR . An inversed axis indicates the opposite direction from the reference object: the axis $-VERT$ points downwards. A vector can be decomposed on two orthogonally complementary axes. In the following example taken from Zwarts (1994) $v_{VERT(x)}$ is the projection of v on the vertical axis of the Ground (the intersection), and $v_{\perp VERT}$ the projection of v on the horizontal axis:

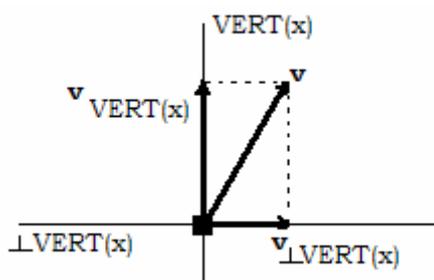


Figure 2 projection of v

We can manipulate the length of a vector by scalar multiplication. If the length of a vector can be changed without changing the meaning of the adposition (that is, without crossing the borders of the region the adposition describes), the adposition is said to be closed under lengthening. Take the following example:

- (23) a. (Two metres/far) above the table
 b. (#Two metres/far) on the table

Whereas the length of the vector of the adposition in (23a) can be modified, this yields an ungrammatical sentence in (23b). ‘Above’ is therefore closed under lengthening; ‘on’ is not. When an adposition is closed under scalar multiplication, it is dubbed *cumulative*. *Cumulativity* can be understood as a property of an adposition, that the set of vectors describing the region of that adposition can be divided in other vectors, that are still part of that region.

As we saw in Section 2, one of the defining properties of *boundedness* was dubbed CUMULATIVITY too. One could even claim that *cumulativity* is the covering term for DIVISIVENESS and CUMULATIVITY, since showing that an adposition is closed under scalar multiplication, is showing that a vector is neither the smallest nor the supreme part of a set of vectors. In this sense, we might say that a PP is unbounded iff the adposition is

⁵ Nikanne (2003) claims that the vertical axis for Finnish adpositions is more important and higher in the hierarchy than the two horizontal ones in a 3D-space.

cumulative. Let us see how well this notion describes the use of partitive case in combination with adpositions in the next section.

4 Boundedness of vector sets

Consider the following three events: Marjatta is at home, we are going to Turku, and the path leads to the shore.⁶

(24) *Marjatta on talo-ssa*
Marjatta be.3SG house-INE
'Marjatta is in the house'

(25) *ol-e-mme matkalla Turku-a kohden*
be-PRES-1PL on the way Turku-PART towards
'We are on our way towards/to Turku'

(26) *polku jatkuu ranta-an*
path extend-3SG shore-ILL
'The path continues to the shore'

In the first example, the starting point has not yet been left: The Figure, Marjatta, is on the same location as the Ground, the house. The set of vectors denoting this situation consists of only one vector, namely the one with length zero. Example (25) consists of a cumulative set of vectors. It does not say anything about actually arriving at Turku, therefore (25) is true by every step we take on our way to Turku. If we want to express that something actually arrives somewhere, we have to use illative case (as in example (26)). Here, the set of vectors is very specific too. We cannot add or remove a vector without changing the meaning.

Cumulativity explains the paradigm in (24) – (26) very well. Only when the set of vectors is *cumulative* (Example 25), the adposition is unbounded and thus partitive case is allowed. If the set of vectors cannot be modified by scalar multiplication, it is not *cumulative*, and some other construction is used.

However, the property *cumulativity* cannot account for the alternation with *ympäri* in (7) and (8) repeated below.

⁶ NB These examples do not show a genitive-partitive case alternation. They are meant to explain the use of partitive case with a cumulative set of vectors.

(7) *juoks-i-mme* *ympäri kaupunki-a*
 run-PAST-1PL around city-PART
 'We were running around in the city'

(8) *juoks-i-mme kaupungi-n ympäri*
 run-PAST-1PL city-GEN around
 'We ran (in a circle) round the city'

In combination with the genitive case (example 8), the construction yields a very literal meaning, in combination with the partitive case (example 7) a less specific one. The construction in (8) expresses what one could call the prototypical meaning of 'around', whereas (7) is less 'round'. This difference cannot be captured by differences in the sets of vectors, since both (7) and (8) are *cumulative*. Rather than expressing *cumulativity*, the partitive case seems to express a more general or maybe even higher-level 'non-specificity' here, or, put the other way around: the genitive case in combination with the adpositions seems to express a more definite spatial meaning.

The difference cannot be explained by boundedness of the reference object either. Compare the following two examples, where the unbounded reference object is assigned genitive case in (28):

(27) *auto on talo-n lähellä*
 car.NOM be.PRES.SG house-GEN near
 'a/the car is near the house'

(28) *auto on (joidenkin) talo-je-n lähellä*
 car.NOM be.PRES.SG (some-GEN) house-PL-GEN near
 'The car is near (some) houses'

Radial category theory can help us to analyze the difference in degree of prototypicality, or definiteness of spatial meaning, as it regards different meanings of a word as derivations from a central meaning.

5 Radial category theory

Radial category theory as such was introduced by Lakoff (1987). The theory regards different meanings of a word as members *extended* from a *central case* (in order to prevent confusion with morphological case I will use the notion *central meaning* instead of *central case*). According to Brugman (1988) (cited in Corston-Oliver, 2001) “This central member is a ‘best example’ of the category insofar as it possesses the largest number of characteristics associated with the category.” Corston-Oliver (2001) gives the following definition of the central meaning:

- (29) a. The central meaning is a **source**
b. The central meaning is **prototypical**

Central meanings are sources, in the sense that other meanings ‘extend’ from them. They unify other meanings, and are typically historically primary. Furthermore, they are appropriate source domains for metaphors. Central meanings are prototypical, having the most common meaning, or having a meaning rather than a function. Radial category theory is often used in the analysis of adpositions (cf. Dewell, 1991; Corston-Oliver, 2001)

Bouma et al. (to appear) introduces some typical senses of the English preposition *round*, with their corresponding illustrations:

- (30) a. The postman ran round the block
b. The burglar drove round the barrier
c. The steeplechaser ran round the corner
d. The captain sailed round the lake
e. The tourist drove round the city centre

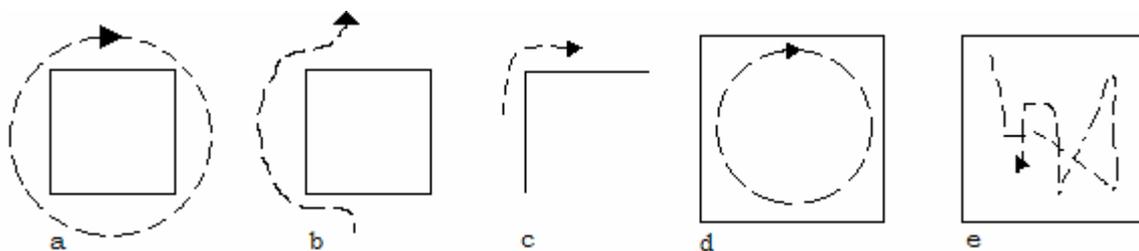


Figure 3 ‘around’

The central meaning of ‘round’ is given in (30a): ‘circle’. The others are, by means of transformation, weakened versions of this meaning. These transformations consist of the weakening of the two properties of a circle: completeness and constancy.

- (31) Completeness: there is a point of the path in every direction from the centre
 Constancy: every point of the path has a constant distance to the centre

A half circle is, for example, an extension by weakening only Completeness, where ‘go around the corner’ is even a further weakening. A spiral lacks the property Constancy, but is still Complete.

For the purpose of this study, it is enough to mention that by manipulating these properties the following network of meanings can be produced (for a more complete story, see Zwarts (to appear) and its cited references):

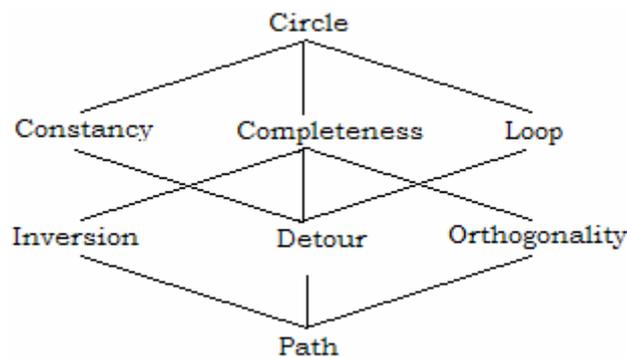


Figure 4 Network of meanings for 'around'

In this network, the collection of circles is the smallest set that consists of all paths with the properties Completeness and Constancy. The set of perfect arcs (“Constancy”), spirals (“Completeness”), and paths returning to their starting points (“Loop”) are all weaker versions of this Circle. “Path” is the biggest set, that consists of, amongst others, those paths that go to some other side (“Inversion”), are not a straight line (“Detour”), or go around some corner (“Orthogonality”). These three subsets are all weaker versions of paths with the property Completeness. In the figure below the distribution of meaning is given. The upper box corresponds with the central meaning (*Circle* in the example above), the bigger box includes all other meanings. The figure, which use will become clear later, has to be understood as an abstract (or: not elaborated) network of meanings.

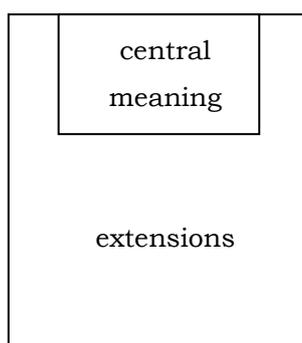


Figure 5 *distribution of meaning*

6 Explaining the case alternation

In the previous section a network of meanings was drawn for ‘around’. As we saw, one of the extensions of the central meaning was a criss-cross path. This extension is precisely the meaning of the adposition *ympäri* with partitive case. Whereas English ‘around’ can get either a central or extended reading within a context (cf. (28a) and (28e)), Finnish uses a case alternation to make this distinction. Consider for the third time examples (7) and (8):

(7) *juoks-i-mme ympäri kaupunki-a*
 run-PAST-1PL around city-PART
 ‘We were running around the city’

(8) *juoks-i-mme kaupungi-n ympäri*
 run-PAST-1PL city-GEN around
 ‘We ran round the city’ (lit.)

The central meaning of ‘around’ is the result of the use of genitive case; the extended reading arises in the combination with partitive case.

I will not draw such complete networks of meanings as shown in Figure 4 for all four adpositions here⁷. Given the very essence of a central meaning, it should be intuitively clear what the central meaning of an adposition is. To illustrate this consider the case alternation in combination with *keske-* ‘middle’:

⁷ A rough sketch of the spatial radial networks of the other adpositions can be found in the appendices.

(32) *lelu-t o-vat keskellä lattia-a*
 toy-PL.NOM be.PRES-3PL in the middle of floor-PART
 'The toys are in the middle of/all over the floor'

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

The central reading again occurs in the combination with genitive case. The combination with partitive case has no real equivalent in English. 'In the middle of nowhere', or 'in the middle of reading a book' may serve to give an idea of this use of 'middle'. It is clear, that the reading of the combination with partitive case is a weakening of the central meaning in the combination with genitive case.

Lähe- 'near' shows a very similar contrast in meaning. Consider the following examples:

(34) *auto on talo-n lähellä*
 car.NOM be.SG.PRES house-GEN near
 'The car is near the house'

(35) *auto on lähellä talo-a*
 car.NOM be.SG.PRES near house-PART
 'The car is near the house'

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

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

The central meaning of 'near' can be understood as 'some object is in the neighborhood of some other object'. In example (34), this meaning is expressed with genitive case. This time, it is possible to express this meaning with partitive case too, cf. (35). What is *not* possible, however, is to express an extended meaning with genitive case. Metaphorical readings as (36) and (37) without concrete reference object can only be expressed with a partitive case.

Following Brugman (1981) and Lakoff (1987), Dewell (1994) shows that the central meaning of *over* is a trajectory starting from one side of an object, passing it on the upper side, and

arriving at the other side. The ‘exceeding’ reading is only one of its possible extended meanings. This time, instead of corresponding to the contrast between a central meaning and an extension, the partitive-genitive case alternation occurs in an extension only:

(38) *tämä-n auto-n hinta on yli 25000 euro-a*
 this-GEN car-GEN price.NOM be.3SG.PRES over 25000 euro-PART
 ‘The price of this car is higher than 25000 Euro’

(39) *tämä-n auto-n hinta on yli 25000 euro-n*
 this-GEN car-GEN price.NOM be.3SG.PRES over 25000 euro-GEN
 ‘The price of this car is higher than 25000 Euro’

The alternation can still be understood in terms of a central and an extended meaning. When genitive case is used, the object of reference is pragmatically very important. When, for example, John has got only 25000 Euro and the car he wants to buy costs 30000 Euro, he will use genitive case. When John does not have the intention to buy any car, but is just surprised by the price of it, he will use partitive case. Instead of using genitive case for the locative definite meaning in the alternations we saw before, the pragmatic definiteness is of importance here. The reading that the car is out of your reach is possible with the partitive as well, but not entailed, while with the genitive this is clearly the more natural reading. Although genitive case is used in an extended reading, it still gets a more central meaning than the corresponding combination with partitive case.

In conclusion, we can say that the meanings of the genitive combinations are the more central, and the meanings of the partitive combinations are the more extended ones. The central meaning of a case alternating adposition combines with genitive case; the farthestmost extensions with partitive case. To what extent the central meaning is weakened when the two cases meet depends on the adposition. Put in figures, the distribution may differ as illustrated in figure 6. The upper box again represents the central meaning. A circle drawn around a case corresponds with the meanings this case covers:

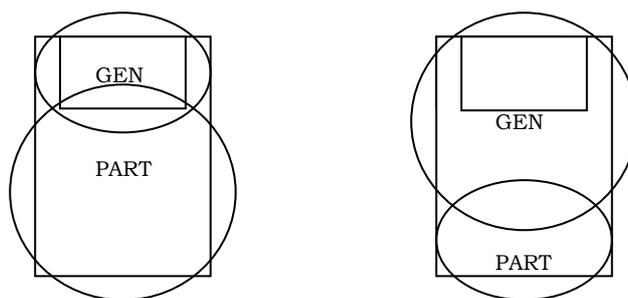


Figure 6 case distribution for PPs

This tendency very well fits our first conception of the general distribution. Recall the distribution in (4) and (5) repeated here:

(4) *Adpositions assigning genitive case:*

<i>al</i>	‘under’
<i>ede-/ete-</i>	‘front’
<i>jälke-/jälje-</i>	‘after’
<i>kanssa</i>	‘with’
<i>luo-</i>	‘to’, ‘by’
<i>pää-</i>	‘on’
<i>sisä</i>	‘in’
<i>ta(ka)-</i>	‘back’
<i>viere-</i>	‘beside’

(5) *Adpositions assigning partitive case:*

<i>koh-</i>	‘towards’
<i>pitkin</i>	‘along’, ‘all over’
<i>päin</i>	‘against’
<i>vast-</i>	‘against’, ‘in the opposite direction’

In Section 1 I hypothesized that the adpositions that assign genitive case to be locative ones; those assigning partitive case directive. All adpositions in (5) indeed express a change of location (either ‘goal’, ‘route’, or ‘distribution’).⁸ In a network of spatial meaning, locative adpositions are the more central cases, whereas directive adpositions more extended. That such a distinction, although vaguely, can be made is also pointed out by Nikanne (2003: 196 & footnote 2). He argues that the locative cases in Finnish are used with “the most basic prepositions in Germanic languages.”

7 Partitive objects revisited

Kiparsky (1998) formulates a requirement for assigning partitive case to the object, namely the *unboundedness* of the VP. Since a VP has the property *unboundedness* if either the verb or the NP is *unbounded*, partitive case is assigned in three out of four possible combinations (recall examples (21) and (22)). Therefore, one could claim that this definition is not very

⁸ Note that *Ta(ka)-* in (4) is directional too.

informative. Moreover, it were nice if Kiparsky's analysis could be extended to other (i.e. PP) functions of partitive case, which it cannot.

Unlike Kiparsky, Vainikka and Maling (1996: 186) analyze partitive case as "the basic unmarked case" of the Finnish objects. Instead of following the traditional view of the accusative as the unmarked object case, they claim that accusative case is more marked, as it expresses definiteness and resultativity. Thus, they do not have to define the functions of the partitive case, but give an explanation for the accusative instead. Since partitive can occur in various constructions, the partitive is dubbed the 'elsewhere case' (Vainikka & Maling, 1996: 193). They claim that accusative case in object position is only licensed by the special verb feature [+COMPLETED]. Seeing partitive case as a default case fits very well into the observation that indefiniteness, which we have seen can also be expressed by partitive case in Finnish, is regarded to be the unmarked value for NPs in object position in various Indo-European languages (Vainikka & Maling, 1996: 205).

The *boundedness* notion of Kiparsky corresponds with two of the characteristics of what can be called the central meaning of transitivity: namely *individuation* of the object and *resultativity* of the verb (cf. Hopper and Thomson, 1980; Malchukov, 2005). Hence we can say that in Finnish the central meaning of transitivity corresponds with accusative, extensions with partitive:

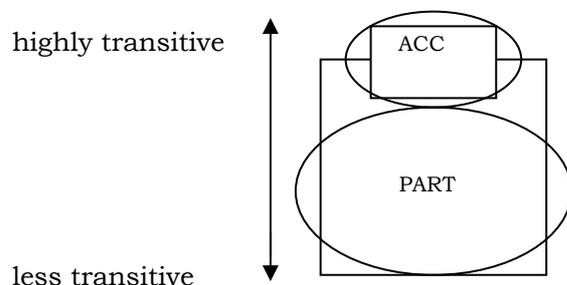


Figure 7 case distribution for transitivity

8 Conclusion

As has been argued for partitive case in object position (Vainikka and Maling, 1996), I claim that the combination with partitive case is the default option for the argument of PPs too. The genitive combination on the other hand expresses the central meaning. A case alternating spatial adposition obtains the more central meaning when taking genitive case and a more extended meaning when taking partitive case. The general distribution of Finnish adpositions that exclusively combine with partitive or with genitive objects reflects the same principle.

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Appendix A: 'over'

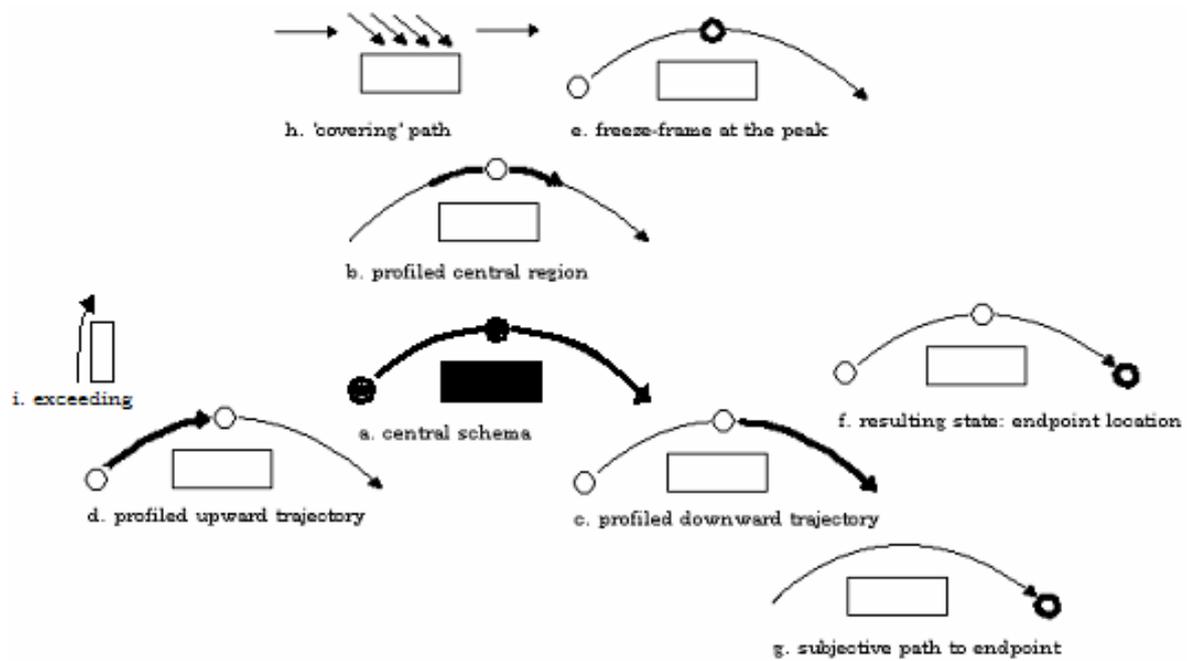


Figure 8 Schemata of 'over'⁹

⁹ These schemata are partly taken from Dewel (1994)

Appendix B: 'Middle'

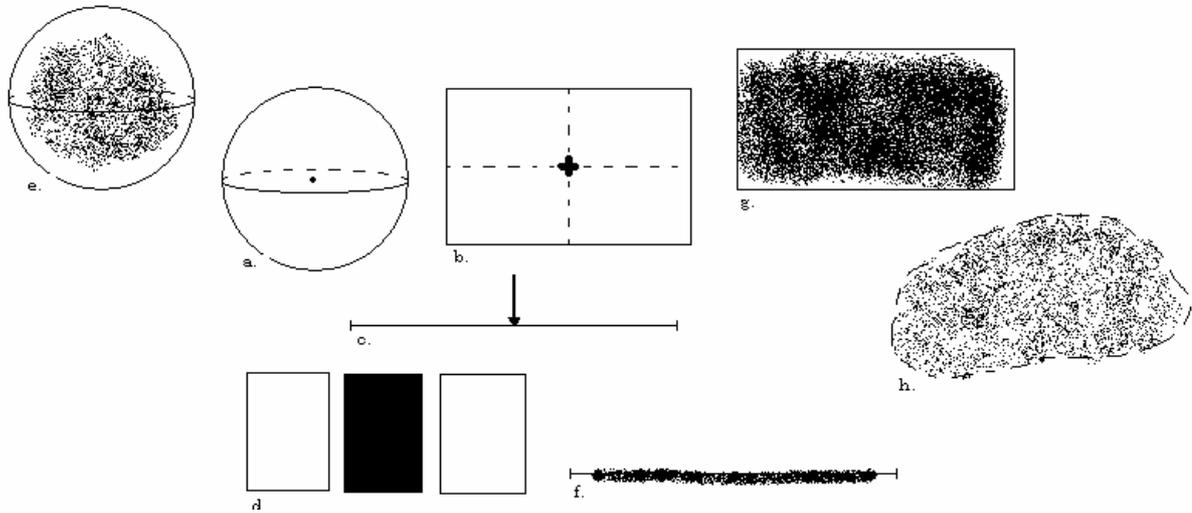


Figure 9 Illustrations of 'Middle'

- a. middle of the earth (centre of gravity)
- b middle of the room (centre of gravity)
- c. in the middle (centre of gravity)
- d. the middle house
- e. middle of the earth (below the surface)

- f. in the middle of the traffic-jam (between two extremes)
- g. all over the room
- h. middle of nowhere

Not represented in the figure:

- i. In the middle of the night
- j. In the middle of doing something