

Reconsidering structural case in Finnish

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This paper is a response to Kiparsky (2000), who convincingly argues that the complex case marking in Finnish can only be captured in a theory that makes a clear distinction between abstract case and morphological case, and is coupled with the OT Correspondence Theory of McCarthy and Prince (1995). Acknowledging nearly all of Kiparsky's theoretical presuppositions, as well as his empirical insights (to which I have nothing to add), I nevertheless arrive at different results. My paper is based on the assumptions of Lexical Decomposition Grammar (LDG, Wunderlich 1997, Stiebels 2000, among others), which in turn owes much to Kiparsky's fundamental idea of abstract case features that encode the hierarchy of theta-roles.

1. The specification of case

The examples in (1a) (taken from Kiparsky 2000:[21]) show that all four structural cases can realize the object role of a bounded predicate such as *tuo-* 'bring'. Accusative is restricted to pronouns, genitive to singular, and partitive to the unspecific reading. Hence, these three cases are object cases, to be specified as [+hr] 'there is a higher role' (which corresponds to [-HR] 'non-highest role' in Kiparsky's system). The genitive is also blocked in the imperative construction, shown in (1b), as well as in the passive. In the context of negation, only partitive is possible on the object, as shown in (1c); the same is true for unbounded predicates such as *etsi-* 'seek'.

- (1) a. Tuo-n häne-t / karhu-n / karhu-t / karhu-j-a.
bring-1sg (s)he-ACC / bear-GEN / bear-pl.NOM / bear-pl-PART
'I'll bring him/her / a/the bear / the bears / bears'
- b. Tuo häne-t / karhu / karhu-t / karhu-j-a.
bring (s)he-ACC / bear-NOM / bear-pl.NOM / bear-pl-PART
'Bring him/her / a/the bear / the bears / bears!'
- c. E-n tuo-nut hän-tä / karhu-a / karhu-j-a / karhu-j-a.
NEG-1sg bring-PFP (s)he-PART / bear-PART / bear-pl-PART / bear-pl-PART
'I won't bring him/her / a/the bear / the bears / bears'

On the basis of the fact that bounded predicates are semantically more complex than unbounded ones, Kiparsky (2000) argues that partitive is the unmarked complement case. However, partitive also realizes semantic information (Kiparsky 1998), as in *karhu-j-a* 'bears' in (1a), and overrides all other cases, if it is triggered by a negation context. It is unclear why such a context should lead to the unmarked complement case. Furthermore, the bounded predicates seem to constitute the unmarked instance in view of the fact that they show more case variation. The exclusion of nominative in the unbounded predicates cannot easily be captured if partitive were the unmarked complement case.

Kiparsky (2000) assumes for the structural cases of Finnish the specifications in (6a), which in the system of LDG can be rewritten as in (6b).¹ Deviating from this proposal, I will, however, assume the alternative specifications given in (6c).

(2) Structural cases

	a. Kiparsky	b. Kiparsky in LDG terms	c. Alternative
nominative	[]	[]	[]
accusative	[-HR,-LR]	[+hr,+lr]	[+hr]
genitive	[+HR]	[-hr]	[+hr,+G]
partitive	[-HR]	[+hr]	[+hr,+part]

The accusative is simply [+hr], hence the unmarked complement case, although it is severely restricted. In many contexts the accusative is replaced by the unmarked complement case of nouns, which is the genitive; for mnemotechnic reasons this case is marked by the additional feature [+G]. Since the partitive (which originated from a semantic case, namely XXX) has entered the system of structural cases of Finnish, it is characterized by two features. There is no evidence that it has replaced the accusative as the unmarked complement case. I would rather predict that the genitive receives this status if the accusative forms of personal pronouns disappear.

2. Case distribution in simple clauses

In the OT Correspondence Theory, faithfulness constraints account for the relation between input (which is a theta-structure in LDG) and output (which is a morpho-syntactic surface form), while markedness constraints restrict features on the output.

Following the proposal by Stiebels (2000), thereby deviating from Kiparsky (2000) in still another point, I will assume that the accusative split is captured by a contextualized markedness constraint that ranks above the corresponding Max-constraint.

(3) $*(+hr)/context \gg \text{Max}(+hr)$

This adopts the view that objects have to be marked by a case that is a genuine verbal case unless they are blocked. By contrast, the splits in the genitive and partitive, which have entered the verbal system of case marking of Finnish, are characterized by a reverse order, thus adopting the view that these cases are strange to a verbal case system.²

- (4) a. $\text{Max}(+G) \gg *gen/context$
 b. $\text{Max}(+part) \gg *(+part)/context$

The restrictions of case can now be formulated more accurately :

- (5) a. $*acc/N$: Accusative is not allowed with nouns.
 b. $*gen/pl$: Genitive is not allowed with plural arguments.

¹ In Kiparsky's account, the accusative has the same specification as the dative, which is unmotivated insofar, as only the genitive shows dative-like properties, as Kiparsky points out in section 2.5 of his paper. In the representation of the genitive an effect of Jahnsson's rule is implemented, namely that genitive is not allowed if the highest argument of a verb is unrealized (see the imperative data in (1b)). However, the linking of an object argument then leads to an IDENTITY violation, because a [+hr]-role is mapped to a [-hr]-case.

² We will see below that genitive can be marked either lexically for a single verb or in a complex predicate for structural reasons.

- c. *SingleGen: Genitive is not allowed as the only argument of a predicate.
(abbreviated as *1gen)
- d. *part/b: Partitive is not allowed with bounded predicates.

With these constraints, all the case distributions in (1) are accounted for. The two constraints that play an important role in other languages, namely UNIQUENESS (‘Each linker applies only once in a domain’) and DEFAULT (‘Every linking domain displays the default linker (nominative)’) (Stiebels 2000, Wunderlich 2000), are ranked relatively low in Finnish, together with the general markedness constraints *gen, *(+hr), and *part. These constraints are ignored in the following, except *gen.

The input is constituted by a theta-structure. For a transitive verb such as *tuo-* ‘bring’, the input is simply a list of two theta-roles, associated with abstract case features, as illustrated in (6a). Number (+pl) can be freely instantiated, while the feature [+part] can be instantiated only in the context of [+pl]. Recall that *tuo-* is a bound predicate, and so does not require partitive in general. Both imperative and passive demote the highest theta-role, which is expressed in (6b) by means of existential binding; however, all case features of the other theta-roles remain the same. Under negation, the negation verb *e-* selects the PFP-form of the verb and inherits all arguments of the verbs; it is furthermore assumed that the negation verb assigns the feature [+part] to all [+hr] argument roles, as shown in (6c).

(6) a. Transitive verbs:

$$\begin{array}{llll} \textit{tuo-}: & \lambda y & \lambda x & \text{BRING}(x,y) \\ & +\text{hr} & -\text{hr} & \end{array}$$

a. Imperative or passive of a transitive verb:

$$\begin{array}{llll} \textit{tuo} [+imp]: & \lambda y & \exists x & \text{BRING}(x,y) \\ & +\text{hr} & & \end{array}$$

c. Negation of a transitive verb:

$$\begin{array}{llll} \textit{e- tuo-nut}: & \lambda y & \lambda x & \text{BRING}(x,y) \\ & +\text{hr} & -\text{hr} & \\ & +\text{part} & & \end{array}$$

The distribution of case then follows from the following tableaux.

(7) Evaluation of transitive verbs

a. Input: [+hr,D] ‘I’ll bring him’

	y x	Max(part)	*acc/N	*gen/pl	*part/b	Max(+hr)	*gen
	nom nom					*!	
	gen nom						*!
☞	acc nom						
	part nom				*!		

b. Input: [+hr,+pl] ‘I’ll bring the bears’

	y x	Max(part)	*acc/N	*gen/pl	*part/b	Max(+hr)	*gen
☞	nom nom					*	
	gen nom			*!			*
	acc nom		*!				
	part nom				*!		

c. Input: [+hr] ‘I’ll bring a/the bear’

	y	x	Max(part)	*acc/N	*gen/pl	*part/b	Max(+hr)	*gen
	nom	nom					*!	
☞	nom	gen						*
	nom	acc		*!				
	nom	part				*!		

d. Input: [+hr, +pl, +part] ‘I’ll bring bears’

	y	x	Max(part)	*acc/N	*gen/pl	*part/b	Max(+hr)	*gen
	nom	nom	*!				*	
	nom	gen	*!		*			*
	nom	acc	*!	*				
☞	nom	part				*		

(8) Evaluation of imperative and passive

a. Input: [+hr,+D] ‘Bring him’ ‘He was brought’

	y	Max(part)	*acc/N	*gen/pl	*part/b	*1 gen	Max(+hr)	*gen
	nom						*!	
	gen					*!		*
☞	acc							
	part				*!			

b. Input: [+hr] ‘Bring a/the bear’ ‘A/the bear was brought’

	y	Max(part)	*acc/N	*gen/pl	*part/b	*1 gen	Max(+hr)	*gen
☞	nom						*	
	gen					*!		*
	acc		*!					
	part				*!			

(9) Evaluation of negation

a. Input: [+hr,+part,+D] ‘I won’t bring him’

	y	x	Max(part)	*acc/N	*gen/pl	*part/b	*1 gen	Max(+hr)	*gen
	nom	nom	*!					*	
	gen	nom	*!						*
	acc	nom	*!						
☞	part	nom				*			

b. Input: [+hr,+part] ‘I won’t bring a/the bear’

	y	x	Max(part)	*acc/N	*gen/pl	*part/b	*1 gen	Max(+hr)	*gen
	nom	nom	*!					*	
	gen	nom	*!						*
	acc	nom	*!	*					
☞	part	nom				*			

3. Case distribution in complex predicate domains (object control)

Most challenging for a theory of case are the following examples with object control, cited from Kiparsky (2000:[73]-[75]).

- (10) a. *Pakot-i-n sinu-t näke-mä-än karhu-n.*
force-PST-1sg you-ACC see-2INF-ILL bear-GEN
'I forced you to see a/the bear'
- b. *Sinu-t pakote-ttiin ampu-ma-an karhu.*
you-ACC force-PASS.PST shoot-2INF-ILL bear-NOM
'You were forced to shoot a/the bear'
- c. *E-n pakotta-nut sinu-a näke-mä-än karhu-a.*
NEG-1sg force-PFP you-PART see-2INF-ILL bear-PART
'I didn't get you to see a/the bear'
- (11) a. *Anno-i-n sinu-n näh-dä karhu-n.*
let-PST-1sg you-GEN see-1INF bear-GEN
'I let you see a/the bear'
- b. *Sinu-n anne-ttiin näh-dä karhu.*
you-GEN let-PASS.PST see-1INF bear-NOM
'You were allowed to see a/the bear'
- c. *E-n anta-nut sinu-n näh-dä karhu-a.*
NEG-1sg let-PFP you-GEN see-1INF bear-PART
'I didn't let you see a/the bear'
- (12) a. *Halus-i-n sinu-n näke-vä-n karhu-n.*
want-PST-1sg you-GEN see-1PTC-GEN bear-GEN
'I wanted you to see a/the bear'
- b. *Sinu-n hallu-ttiin näke-vä-n karhu-n.*
you-GEN want-PASS.PST see-1PTC-GEN bear-GEN
'It was wanted for you to see a/the bear'
- c. *E-n halun-nut sinu-n näke-vä-n karhu-n.*
NEG-1sg want-PFP you-GEN see-1PTC-GEN bear-GEN
'I didn't want you to see a/the bear'

Table (13) summarizes the distribution of case in these examples.

(13)	Active	Passive	Negation
<i>pakot-</i> 'force'	nom acc gen	acc nom	nom part part
<i>anno-</i> 'let'	nom gen gen	gen nom	nom gen part
<i>halu-</i> 'want'	nom gen gen	gen gen	nom gen gen

An obvious way to deal with this distribution is to mark the genitive with verbs such as *anno-* 'let' and *halu-* 'want', so that it cannot be overridden by partitive.

Let us first consider how complex predicates are formed. (14a) represents an object control verb that selects an infinitive in the illative case, and (14b) represents a transitive verb that can be embedded. Functional Composition, then, yields the result in (14c). Thus, a more complex theta-structure with three structural arguments arises; such a structure is not possible with simple verbs.

- (14) a. $\lambda P \quad \lambda y \quad \lambda x \quad \text{FORCE}(x,y,P(y))$
 $2\text{inf},+\text{ill}$
 default: $\quad \quad \quad +\text{hr} \quad -\text{hr}$
- b. $\lambda v \quad \lambda u \quad \text{SEE}(v)(u)$
 $\quad \quad \quad +\text{hr} \quad -\text{hr}$
- c. $\lambda v \quad \lambda y \quad \lambda x \quad \text{FORCE}(x,y, \text{SEE}(y,v))$
 $\quad \quad \quad +\text{hr} \quad +\text{hr} \quad -\text{hr}$

Under the constraints used in the preceding section it is obvious that both [+hr]-roles can be realized by genitive, given the appropriate circumstances. An open question, however, is under what conditions genitive is blocked. If x is existentially bound, y remains as the only individual argument role of the predicate FORCE in (14a), so it is subject to *SINGLE GEN in a partial domain. Under default circumstances, predicatives such as P in (14a) are realized by the same case as their respective arguments. Thus, if genitive is blocked for y , it is blocked for P , too, and, since neither genitive nor another structural case can be realized on a predicative that is already marked for illative, this information has to be transferred to the internal argument of P (to be realized as a complement in VP). Similarly, if a dependent predicate is marked for genitive or partitive, this information is transferred to all arguments in the scope of this predicate. These ‘long distance’ effects (vaguely described by Jahnsson’s rule) can be captured by the following statements.³

- (15) a. Genitive Inheritance. All arguments in the scope of a predicate marked for [+G] inherit the feature [+G].
 b. Partitive Inheritance. All arguments in the scope of a predicate marked for [+part] inherit the feature [+part].
 c. *AllGen. All arguments in the scope of a predicate whose highest argument is subject to *SingleGen (i.e., is blocked for genitive) are also blocked for genitive.⁴

The two inheritance statements in (15a,b) are used in the following to explain why certain features have to appear in the theta-structure (the input), while the constraint in (15c) is used in the interaction with the other constraints.

With these tools, the distribution of cases shown in (10) to (13) can be derived. In the following, (a) always refers to the active form, (b) to the passive form, and (c) to the negated form. Let us first consider the verb *pakot-* ‘force’ in more detail. (16a) repeats the derivation shown in (14), while (16b) represents the passive. In order to derive (16c), I assume that the feature [+part] is assigned to all internal arguments of FORCE, and then transferred from the predicative, on which it cannot be realized, to its internal argument. The evaluations given in (17) bring about the correct results.

³ An alternative (which Kiparsky seems to prefer) is to define all three statements, genitive as well as partitive inheritance, and genitive blocking, on the basis of a syntactic structure. However, this would mean that morphological case depends on syntax: first the complex predicate must be projected into the syntax, and only then, depending on certain syntactic configurations, the morphological cases are determined. Although such an approach conforms to the classical account of case, it is incompatible with the LDG account.

⁴ The formal status of this constraint is still unclear. It is not a markedness constraint that operates on outputs, but rather a faithfulness constraint that undermines the effects of Max(+hr) in cases where accusative is not available.

(16) pakot ‘force’

- a1. $\lambda P \quad \lambda y \quad \lambda x \quad \text{FORCE}(x,y,P(y))$
 $2_{\text{inf,+ill}}$
 default: $+hr \quad -hr$
- a2. $\lambda v \quad \lambda y \quad \lambda x \quad \text{FORCE}(x,y, \text{BRING}(y,v))$
 $+hr \quad +hr \quad -hr$
- b. Passive:
 $\lambda v \quad \lambda y \quad \exists x \quad \text{FORCE}(x,y, \text{BRING}(y,v))$
 $+hr \quad +hr$
- c1. Negation
 $\lambda P \quad \lambda y \quad \lambda x \quad \neg \text{FORCE}(x,y,P(y))$
 $2_{\text{inf,+ill,+part}} \quad +\text{part}$
- c2. $\lambda v \quad \lambda y \quad \lambda x \quad \neg \text{FORCE}(x,y, \text{BRING}(y,v))$
 $+hr \quad +hr \quad -hr$
 $+\text{part} \quad +\text{part}$

(17) Object control verbs of the type *pakot* ‘force’

a. Active:

	v y x	Max (+G)	Max (+part)	*All Gen	*Single Gen	Max (+hr)	*gen
☞	gen acc nom						*
	gen gen nom						**!
	nom acc nom					*!	
	nom gen nom					*!	*
	gen nom nom					*!	*
	nom nom nom					**!	

b. Passive:

	v y	Max (+G)	Max (+part)	*All Gen	*Single Gen	Max (+hr)	*gen
	gen acc			*!			*
	gen gen			*!	*		**
☞	nom acc					*	
	nom gen				*!	*	*
	gen nom			*!		*	*
	nom nom					**!	

c. Negation:

	v y x	Max (+G)	Max (+part)	*All Gen	*Single Gen	Max (+hr)	*gen
	gen acc nom		**!				*
	gen gen nom		**!				**
	part acc nom		*!				
	part gen nom		*!				*
	gen part nom		*!				*
☞	part part nom						

Let us now turn to the verb *anno-* ‘let’ (‘allow’), for which already Kiparsky (2000) assumes that it marks its internal argument by genitive. Note that the dependent predicate itself is unmarked for case, so that no genitive inheritance can take place. However, if the genitive is blocked in the passive, the lexical marking for genitive cannot be overridden, though, another argument in the scope of this predicate can be blocked from genitive. Since no partitive can be realized on the 1INF-form of the verb, the partitive is transferred to the internal argument. The representations for this type of verb are given in (18), and the evaluations in (19).

(18) *anno-* ‘let’ (‘allow’)

- a1. $\lambda P \lambda y \lambda x \text{ ALLOW}(x,y,P(y))$
lexical : 1INF +G
default: +hr -hr
- a2. $\lambda v \lambda y \lambda x \text{ ALLOW}(x,y, \text{BRING}(y,v))$
+hr +G -hr
- b. Passive:
 $\lambda v \lambda y \exists x \text{ ALLOW}(x,y, \text{BRING}(y,v))$
+hr +G
- c. Negation:
 $\lambda v \lambda y \lambda x \neg \text{ALLOW}(x,y, \text{BRING}(y,v))$
+hr +G
+part +part

(19) Object control verbs of the type *anno-* ‘let’

a. Active:

	v y x	Max (+G)	Max (+part)	*All Gen	*Single Gen	Max (+hr)	*gen
	gen acc nom	*!					*
☞	gen gen nom						**!
	nom acc nom	*!				*	
	nom gen nom					*!	*
	gen nom nom	*!				*	*
	nom nom nom	*!				**	

b. Passive:

	v y	Max (+G)	Max (+part)	*All Gen	*Single Gen	Max (+hr)	*gen
	gen acc	*!		*			*
	gen gen			*	*!		**
	nom acc	*!				*	
☞	nom gen				*	*	*
	gen nom	*!				*	*
	nom nom	*!				**	

c. Negation:

	v y x	Max (+G)	Max (+part)	*All Gen	*Single Gen	Max (+hr)	*gen
	gen acc nom	*!	**				*
	gen gen nom		**!				**
	part acc nom	*!	*				
☞	part gen nom		*				*
	gen part nom	*!	*				*
	part part nom	*!					

Still another possibility of object control is exemplified by the verb *halu-* ‘want’; here, the dependent verb is marked for genitive participle. This is the point where genitive inheritance (15a) becomes effective: all arguments of the dependent verb inherit the feature [+G] from the verb by default. Under the assumption that Max(+G) ranks high, neither the blocking of genitive nor the assignment of partitive can affect the given feature combination. The representations are given in (20), and the corresponding evaluations in (21).

 (20) *halu* ‘want’

- a1. $\lambda P \quad \lambda y \quad \lambda x \quad \text{WANT}(x, P(y))$
 lexical: IPTC,+G
 default: +G
 +hr -hr
- a2. $\lambda v \quad \lambda y \quad \lambda x \quad \text{WANT}(x, \text{BRING}(y, v))$
 +hr +hr -hr
 +G +G
- b. Passive
 $\lambda v \quad \lambda y \quad \exists x \quad \text{WANT}(x, \text{BRING}(y, v))$
 +hr +hr
 +G +G
- c. Negation
 $\lambda v \quad \lambda y \quad \lambda x \quad \neg \text{WANT}(x, \text{BRING}(y, v))$
 +hr +hr -hr
 +G +G
 +part +part

 (21) Object control verbs of the type *halu-* ‘want’

a. Active:

	v y x	Max (+G)	Max (+part)	*All Gen	*Single Gen	Max (+hr)	*gen
	gen acc nom	*!					*
☞	gen gen nom						**
	nom acc nom	**!				*	
	nom gen nom	*!				*	*
	gen nom nom	*!				*	*
	nom nom nom	**!				**	

b. Passive:

	v y	Max (+G)	Max (+part)	*All Gen	*Single Gen	Max (+hr)	*gen
	gen acc	*!		*			*
☞	gen gen			*	*		**
	nom acc	**!				*	
	nom gen	*!			*	*	*
	gen nom	*!		*		*	*
	nom nom	**!				**	

c. Negation:

	v y x	Max (+G)	Max (+part)	*All Gen	*Single Gen	Max (+hr)	*gen
	gen acc nom	*!	*				*
☞	gen gen nom		**				**
	part acc nom	**!	*				
	part gen nom	*!	*				*
	gen part nom	*!	*				*
	part part nom	**!					

4. Conclusions

The results of this paper make the general points put forward by Kiparsky (2000) even stronger. Apart from the default nominative, Finnish exhibits three structural object cases, competing with each other for a single object role. Since Finnish lacks a dative, and the medial argument of simple ditransitive verbs is always marked by semantic case, there is no evidence that the feature [+lr] ('there is a lower role') plays any function in Finnish. The accusative occurs only with personal pronouns, but is overridden by genitive or partitive under specific conditions. The genitive, being the complement (or possessor) case with nouns, has been transferred to the verbal system, but is still restricted in various respects. The partitive, originating from a semantic case, has been shifted to a structural object case for the class of process (unbounded) verbs, but also participates in the argument linking of change (or bounded) verbs under clear semantic conditions. The interaction of these three cases in a simple clause of Finnish can be captured by a small set of restrictions placed between Max(part) and Max(+hr).

The object control verbs of Finnish seem to form complex predicates in which the realization of the object of the embedded verb depends on conditions on the matrix verb. This fact can be captured in a clause-union account, but since Finnish lacks a dative, some other mechanism had to be found for dealing with 3-place argument clusters. As we know, case-percolation is a common device for complex DPs in Finnish (Vainikka 1989); so the case inheritances outlined above can be seen as ways of adapting this nominal strategy to verbal complexes. It is not surprising that in such a noncanonical situation a certain variation takes place.

According to Kiparsky's proposal, the Finnish partitive has already acquired the role of accusative. I think that in the contrary, the Finnish genitive could more probably take over

this role. The genitive is marked on verbs for no obvious semantic reasons, and it is subject to both blocking and enforcing for unknown semantic reasons. If some of these genitive-typical restrictions are dropped, the genitive would rise as a default case for objects.

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