

# Case and Other Functional Categories in Finnish Syntax

*Edited by*

Anders Holmberg  
Urpo Nikanne

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## Of Nominative and Accusative: The Hierarchical Assignment of Grammatical Case in Finnish<sup>1</sup>

Joan Maling  
Brandeis University

### 1. INTRODUCTION

The basic question I want to address in this paper is this: what is the relationship between morphological case and grammatical functions? In particular, what are the principles governing the assignment of the grammatical cases, NOM and ACC? All work on case distinguishes at least 3 different kinds of case-assignment: grammatical or syntactic (NOM, ACC); lexical (to verbal arguments); and semantic (to adverbial adjuncts). It is often assumed that the grammatical cases are used to encode grammatical functions (GFs).

(1) "The nominative is the case of the subject of the sentence, and of any word qualifying the subject, whether attributively, in apposition, or as predicate."  
(William Dwight Whitney, 1889, *A Sanskrit Grammar*, 267)

Such statements reflect the widespread assumption that there is a 1-1 mapping between morphological cases and GFs, such that the grammatical subject is always NOM, and the nominative NP (other than a predicate nominal) is necessarily the grammatical SUBJ.<sup>2</sup> While this is probably the unmarked state

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<sup>1</sup> My debts are many. I would like to thank: Paul Kiparsky, for pointing out to me in July 1989 that Finnish was another example of a language in which so-called 'structural' case appears on adverbials; Joe Emonds, for bringing Timberlake (1974) to my attention; Urpo Nikanne, for being in the right place (Brandeis) at the right time (the academic year 1989-90), and for the generous help that made it possible for me to pursue the implications of the Case-Tier analysis in Finnish; Lauri Karttunen, for being an exceptionally well-informed informant; Kristiina Jokinen, Anita Mittwoch, and Leonard Babby for helpful comments on the first draft. Unless otherwise indicated, the Finnish judgments reported in this paper are those of Urpo. Any native speakers who disagree with the data should blame the data on him and the analysis on me (but please let me know!). The usual disclaimers apply; in particular, neither Urpo nor Lauri necessarily agree with my interpretation of their judgments. An earlier and shorter version of this paper was presented at the 12th Scandinavian Conference of Linguistics held in Reykjavik in June, 1990.

<sup>2</sup> This is most clearly stated in the following quote from Hans den Besten: "As far as NPs at sentence level are concerned, there seems to be a one-to-one relationship between nominative, dative, and accusative and Subject, indirect Object, and Direct Object respectively" (1981: 104 / 1989:205). Den Besten notes that exceptions to this general pattern must be allowed for verbs which govern a nonstandard case on an object.

of affairs, it is certainly not the only possibility. Finnish case-marking provides striking evidence in support of the claim that it is merely a particular instantiation of the more general principle stated in (1):

- (1) The highest available GF is assigned NOM case, the next highest ACC.  
(Zaenen, Maling, and Thráinsson (1985), (61d))

where "available" means not already associated with morphological case. In other words, I assume that the mapping between syntactic cases and GFs reflects a hierarchy of grammatical functions in which SUBJ is higher than OBJ.<sup>3</sup> For the purposes of exposition, I will refer to the principle in (1) as the Case-Tier Hypothesis, adopting the particular formulation of Yip, Maling and Jackendoff (1987), who propose that the grammatical cases form an autonomous Case-tier, and that these cases are mapped one-to-one from left-to-right onto NPs (or GFs) by principles analogous to those of autosegmental phonology.

- (2) GF TIER:   SUBJ > OBJ > ADV  
                  |           |  
CASE TIER:   NOM   ACC

What GFs can the grammatical cases map onto? A basic assumption of standard Case Theory is that only verbal arguments fall within its domain, i.e. only verbal arguments are subject to the Case Filter.<sup>4</sup> This is because Case Theory is assumed to explain NP-movement, and only verbal arguments undergo NP-movement (i.e. Passive, Raising).

But, how do adverbial adjuncts get case? In English, as in many languages, adverbials are typically PPs; even so-called adverbial NPs can plausibly be analyzed as getting Case from a null P (Emonds 1987). In languages with overt morphological case, like Icelandic or German, adverbial NPs are clearly case-marked, bearing e.g. accusative of time or duration, instrumental dative, etc. Such case-marking is invariant: unlike an accusative object, an accusative of time does not exhibit case-alternations depending on the transitivity or voice of the matrix verb. Hence this type of case-marking is said to be "semantic" or (within GB) "inherent" case analogous to the lexical-case marking on verbal arguments which is characterized by case-preservation under movement (Zaenen *et al.* 1985).

<sup>3</sup> Most linguists making use of grammatical function hierarchies take these notions to be primitives of the theory. It is possible that these notions could be translated into configuration terms, e.g. SUBJ = [SPEC, IP], OBJ = sister of V, ADJUNCT = sister of V' and so on. I leave open the correct analysis of such notoriously problematic constructions as *there*-insertion and raising to object.

<sup>4</sup> See however Babby (1980a,b), who argues that in Russian accusative adverbs of duration must be treated in the same way as arguments/objects, since ACC alternates with GEN under negation.

However, there are languages where certain classes of adverbials seem to get syntactic case, e.g. Chinese (Li 1985/1990), Korean (Maling 1989), Classical Arabic (McCarthy 1976; Noyer 1989), Warumungu (Simpson 1991).

There are two facts about this phenomenon to note: (i) the same class of adverbials shows up again and again: adverbials of duration/frequency, measure phrases, cognate objects, suggesting the existence of a semantically natural class, and (ii) not only do these adverbials get the same ACC case assigned to verbal objects, BUT they exhibit the same Case-alternations diagnostic of structural Case, i.e. they show up with NOM case in the same sorts of environments that verbal objects do. (Since adverbials do not passivize or raise, this fact has obvious implications for the usual case-theoretic account of NP-movement. Some recent work in GB distinguishes between case-assignment and case-licensing (Sigurðsson 1990; Freidin and Sprouse 1990).)

Another language of this type is Finnish (but not Hungarian). The purpose of this paper is to explore the predictions of the Case-Tier model for the assignment by investigating the assignment of grammatical cases to verbal objects and certain adverbial adjuncts.

## 2. THE CASE OF FINNISH OBJECTS

Finnish is said to have four grammatical cases, illustrated in the paradigm for *kirja* 'book' shown in (3).

### (3) Finnish grammatical cases:

	SG	PL
NOM	kirja	kirja+t
ACC	?	kirja+t
GEN	kirja+n	kirjojen
PAR	kirja+a	kirjoja

The question mark entered under accusative singular reflects the different nomenclature encountered in the literature to describe the form of an object NP in the singular. Such an NP bears either a zero-suffix (the so-called "endingless accusative") or an *n* suffix (historically *m*), depending on the form of the matrix verb:

- (4)   NOM subject → finite V → ACC object -*n*  
      GEN subject → 3SG verb → NOM object -  $\emptyset$

The zero-suffix also occurs in a variety of systematically impersonal constructions, including passives and imperatives. Accounting for the  $\emptyset/n$  alternation in the case-marking on the object is a classic problem in Finnish

syntax.<sup>5</sup> As can be seen from the paradigm in (3), this  $\emptyset/n$  alternation occurs only in the singular; plural NPs are morphologically identical to the NOM and distinct from the GEN. Glosses in this paper reflect the claim that the accusative singular suffix is always *n*, and the "endingless accusative" is actually NOM. A major advantage of this view is that the same rules can then be said to govern the realization of both singular and plural objects as either NOM or ACC.

The traditional thinking among Finnish grammarians is that in the singular, except for certain pronouns, ACC is an "abstract" case that is realized morphologically as NOM or GEN depending on the environment and type of phrase (as sketched in 5a):

- (5) a.      ACC                      b.      OBJECT  
           /        \                    /        \  
           NOM    GEN: -*n*            NOM    ACC: -*n*

Under my analysis, as sketched in (5b), the traditional notion of "abstract ACC" corresponds to the GF OBJECT, which is morphologically marked as either NOM or ACC depending on the environment. This analysis assumes the existence of "nominative objects" (as suggested for Finnish by Timberlake 1974, 1975; Taraldsen 1986; Emonds 1989; inter alia).

Timberlake argues at length that the Nominative NP in the (b) pattern is the grammatical object. There are a number of reasons for this. First, there is never agreement with postverbal nominative objects in Finnish (unlike Icelandic). This lack of agreement with a nominative object is illustrated in (6a) as contrasted with (6b):

- (6) a. Jukalla oli avaimet.  
       Jukka+ADE be+PST+3SG key+PL-NOM  
       'Jukka had/owned (the) keys'  
       b. Avaimet olivat Jukalla.  
       key+PL-NOM be+3PL Jukka+ADE  
       'Jukka had the keys/the keys were in Jukka's possession'

Secondly, personal pronoun objects are clearly accusative in form (as noted in footnote 4), regardless of the case on the subject.

<sup>5</sup> Personal pronouns do not exhibit this case alternation, but are clearly accusative, whatever the form of the matrix verb. Contra Reime (this volume), I do not consider this fact an argument that the "endingless accusative" is not truly nominative Case, since many languages are known to use a different case-marking system for pronouns than for lexical NPs. (P. Anderson (1990: 200, fn. 27) makes the same observation.) In so-called split-ergative systems, for example, pronouns are marked nominative/accusative whereas full NPs are ergative/absolutive.

### 2.1 The Case of Adverbials

It is well-known that certain "adverbials of amount" are treated like verbal objects for the purposes of case assignment in Finnish (Tuomikoski 1978). Measure phrases, cognate objects and adverbials of duration and frequency get assigned same case as objects, and like objects, get partitive case under negation.<sup>6</sup>

The significant fact is not that adverbials bear "objective case," but that they exhibit the same case alternations between NOM and ACC that verbal objects do. This is illustrated below (examples a,b are taken from Hakulinen and Karlsson):

- (7) a. (Minä) viivyn matkalla viikon.  
       (I(NOM)) stay+ISG trip+ADE week+ACC  
       'I stayed on the trip a week'  
       b. Siellä viivytettiin kokonainen viikko.  
       there+ADE stayed+PASS whole week(NOM)  
       'We/they/one stayed there a whole week'  
       c. Luetaan koko ilta/\*illan  
       read+PASS whole evening+NOM/\*ACC  
       'People are reading for one evening / let's read for one evening'

If the matrix verb is finite and agrees with the (possibly null) NOM subject, then the adverbial is ACC; if the matrix verb is systematically impersonal, e.g. in the passive, then the adverbial is NOM. It is the case-alternation which makes this look like "syntactic" case, and which distinguishes this from the use of accusative on certain types of adverbials in Icelandic, Russian or Latin.

A word of caution is in order here about the class of adverbials which undergo this case alternation. Certain adverbials e.g. *joka päivä* 'every day' are invariantly NOM for all speakers. For all speakers of Finnish a fair number of common adverbials only vary between accusative and partitive, for example, those in (8b) in all likelihood do not have unsuffixed accusative forms in anybody's speech (Lauri Karttunen, p.c.).

- (8) a. joka päivä 'every day'            zero-suffix only  
       b. enemmän 'more'                *n* suffix only  
           pitkän aikaa 'a long time'  
           sen verran 'that much'  
       c. kolmas kerta/kolmannen kerran 'third time' NOM/ACC

But there are individual differences in just what belongs to this suffixed-accusative-only class. For some speakers, the frequency adverbial 'n times' is included whereas the durative 'for n years' is not. Adverbs like 'koko talven' are

<sup>6</sup> I am indebted to Paul Kiparsky for drawing my attention to this phenomenon in Finnish, and for providing a translation of the relevant section of Hakulinen and Karlsson 1979:216-217, itself a summary of Tuomikoski (1978).

semantically ambiguous: they can be construed as duratives 'for a whole winter' or as scene-setting temporal locatives: 'the whole winter long.' The most solidly object-like adverbials are measure phrases like 'yksi kilometri' which do not have any locative interpretation. Note that locative time adverbials do not show any object-like behavior. As Lauri Karttunen points out (p.c.), 'every day' is like a locative adverbial, unlike a durative such as 'for three hours'. *Joka päivä* 'every day' is not subject to the ACC/PAR alternation under negation (see Section 2.5 below). The ACC/PAR alternation distinguishes true objects and object-like measure phrases from object-like adverbials. Further research is needed to determine the extent to which these differences are semantically based, or the degree to which they are simply idiosyncratic lexical properties of particular adverbial phrases. Only adverbials which exhibit the NOM/ACC alternation will be considered in remainder of this paper.

Let us assume that there is no appropriate semantic case in Finnish for an adverbial of duration and frequency.<sup>7</sup> It follows that the adverbial NP will have to get grammatical case from the syntactic Case Tier. Under the Case-Tier hypothesis, NOM case-marking on the object or adverbial is an automatic consequence of the Oblique case on the subject, which induces a shift of the syntactic case tier such that NOM appears on the object, if any, or on the adverbial of amount. [Recall that it's the finiteness of the matrix verb that matters, not the presence of an overt NOM subject. I assume that all finite verbs have a subject which receives NOM, but that this subject may be phonologically null.] The source of the oblique case marking on the subject in Finnish can be either a lexical property of the matrix verb as in (9) or the result of a general rule assigning GEN configurationally to SPEC position, as in (10).<sup>8</sup>

<sup>7</sup> This is exactly the hypothesis offered by Audrey Li (1985/1990) in her analysis of Chinese.

<sup>8</sup> One might want to claim that the modal *täytyy* assign GEN lexically rather than structurally. There are two arguments against this. First, GEN still appears on the subject when the construction clearly involves Raising, as when an idiom is embedded under the modal:

- (i) John potkaisi tyhjää viime yönä  
John(NOM) kicked+PST(3SG) empty+PAR last night+ESS  
'John kicked the bucket (i.e. died) last night'
- (ii) Johnin on täytynt potkaista tyhjää viime yönä  
John+GEN is must+PTC kick+INF empty+PAR last night+ESS  
'John must have kicked the bucket last night'

On the standard assumption that lexical case marking can only be assigned to thematic arguments, then GEN cannot be lexically assigned by the modal.

Second, when a predicate with an oblique subject is embedded under *täytyy*, the OBL case is preserved under Raising, but a NOM subject turns to GEN, as shown by the contrast between (iii) and (iv):

- (iii) Jukalla täytyy olla kirja.  
Jukka+ADE must be+INF book(NOM)  
'Jukka must have a book'
- (iv) Kirjan täytyy olla Jukalla.  
book+GEN must be+INF Jukka+ADE  
'The book must be in Jukka's possession'

- (9) LEX  
|  
SUBJ OBJ  
|  
NOM ACC

- a. Lapsen oli jano  
child+GEN be+PST thirst(NOM)  
'the child was thirsty'
- b. Lapsella oli kirja.  
child+ADE be+PST book(NOM)  
'a/the child had a book'

- (10) GEN  
|  
SUBJ OBJ/ADV  
|  
NOM ACC

- a. Lapsi luki kirjan illassa  
child(NOM) read+3SG book+ACC evening+INE  
'the child read a/the/one book in one evening'
- b. Lapsen täytyy lukea kirja/\*kirjan.  
child+GEN must read book+NOM/\*ACC
- c. Lapsen täytyy lukea koko päivä/\*päivän.  
child+GEN must read all day+NOM/\*ACC

Lexical case-marking on an object has exactly the same effect: syntactic Case shifts over to Adverbial, exactly as expected under the Case-Tier. This is illustrated in (11) for the verb *luottaa* 'to trust,' which governs Illative (ILL) case on its object:

- (11) OBL LEX  
| |  
(SUBJ) OBJ ADV  
| |  
NOM ACC

- a. Kansa luotti Kekkoeseen vuoden.  
people(NOM) trust+PST+3SG Kekkonen+ILL year+ACC  
'people trusted Kekkonen for a year'
- b. Kekkoeseen luotettiin vuosi.  
Kekkonen+ILL trust+PASS year(NOM)  
'Kekkonen was trusted for a year'
- c. Kansan täytyy luottaa Kekkoeseen vuosi.  
people+GEN must trust Kekkonen+ILL year(NOM)  
'the people must trust Kekkonen for a year'

Note that if both SUBJ and OBJ bear an oblique case, NOM from the syntactic Case Tier shifts over not just one, but two NPs, all the way to the Adverbial NP, as illustrated in (11c).

## 2.2 Combining Adverbials and Objects: Partitive versus Accusative

We have seen that NOM from the Syntactic Case Tier can shift over to the OBJ, if any, or if there is no OBJ, onto certain adverbials. The obvious question is what happens if both DO and ADV co-occur? What happens if we try to combine a syntactically case-marked object and a syntactically case-marked adverbial? Under the Case-Tier Hypothesis, we expect to be able to generate the case pattern OBL NOM ACC whenever the subject bears an oblique case. It turns out that such combinations are often unacceptable, for reasons having to do with the semantic incompatibility of durational adverbs with the aspectual meaning of using NOM/ACC as opposed to PAR on the objects of agentive verbs. Note the difference in meaning between (12a and b).

- (12) a. *Minä luen kirjan illassa*  
I(NOM) read+1SG book+ACC evening+INE  
'I read a/the/one book in one evening'
- b. *Minä luen kirjaa illassa*  
I(NOM) read+1SG book+PAR evening+INE  
'I am reading a/the book in one evening (but am I not sure if I will succeed in finishing it)'
- (13) a. \**Minä luen kirjan illan*  
I(NOM) read book+ACC evening+ACC  
'I read the book for an evening'
- b. *Minä luen kirjaa illan*  
I(NOM) read+1SG book+PAR evening+ACC  
'I am reading a/the book for one evening'

One might attribute the ungrammaticality of (13a) to the Case-filter: the adverbial NP has to get case from the syntactic Case Tier, but both syntactic cases have already been assigned. But there is another explanation: the meaning of the durational phrase 'for one evening' is semantically incompatible with telic predicates, and hence incompatible with the aspectual meaning of using grammatical case (as opposed to partitive) on the object of an agentive verb.

If this explanation is correct, then the case pattern GEN NOM ACC will be ruled out for agentive verbs where the use of structural case marks completion and the adverbial is durational. But under the Case-Tier hypothesis, this case pattern is in principle expected to occur, and indeed it does. Choosing a nonagentive predicate with oblique subject as in (14a,b) or a frequency adverbial as in (14c) makes the case pattern acceptable.

- (14) a. *Lapsen oli jano yhden illan/\*yksi ilta*  
child+GEN be+PST thirst(NOM) one+ACC evening+ACC/\*NOM  
'the child was thirsty for one evening'

- b. *Lapsella oli kirja koko päivän/\*päivä.*  
child+ADE be+PST book(NOM) all day+ACC/\*NOM  
'a/the child had the book all day'
- c. *Lapsen täytyy lukea kirja kolmannen kerran/\*kolmas kerta.*  
child+GEN must read book(NOM) third time+ACC/\*NOM  
'the child must read the book for a third time'

Another way of exemplifying the expected case pattern is to find a transitive verb where the use of structural case does not mark completion and hence the meaning is compatible with a duration time adverbial. One such verb is *muistaa* 'to remember,' a 'verb of containment' for which partitive case on the object is not possible in an affirmative sentence, as illustrated in (15).

- (15) *Liisa muisti matkan/\*matkaa.*  
Liisa(NOM) remembered trip+ACC/\*PAR  
'Liisa remembered the trip'

When combined with a duration adverb, we find the following case patterns:

- (16) a. *Liisa muisti matkan vuoden.*  
Liisa(NOM) remembered trip+ACC year+ACC  
'Liisa remembered the trip for a year'
- b. *Muista matka vuoden!*  
Remember trip(NOM) year+ACC  
'Remember the trip for a year!'
- c. *Liisan täytyy muistaa matka vuoden.*  
Liisa+GEN must remember trip(NOM) year+ACC  
'Liisa must remember the trip for a year'

There is a related verb, *muistella* 'to reminisce', with the opposite properties: namely it takes only partitive and not accusative on its object.

- (17) *Liisa muisteli matkaa/\*matkan.*  
Liisa(NOM) reminisced trip+PAR/\*ACC  
'Liisa reminisced about the trip'

As a consequence, when NOM is not assigned to the subject, it shifts over to the durational adverb.<sup>9</sup> Contrast the case patterns exemplified in (18) with those in (16).

- (18) a. *Liisa muisteli matkaa vuoden.*  
Liisa(NOM) reminisce+PST trip+PAR year+ACC  
'Liisa reminisced about the trip for a year'

<sup>9</sup> The judgments about the NOM case on the durational adverb are not as categorical for verbs with partitive objects as they are for verbs with lexically case-marked objects. One possible interpretation of this fact is that partitive case is ambiguous between a lexical case and a syntactically assigned 'unmarked' case in Finnish. See Section 2.6 for discussion.

- b. Muistele matkaa vuosi!  
Reminisce trip+PAR year(NOM)  
'Reminisce about the trip for a year'
- c. Liisan täytyy muistella matkaa vuosi.  
Liisa+GEN must reminisce trip+PAR year+NOM  
'Liisa must reminisce about the trip for a year'

### 2.3 Case Spreading

Finnish has no double accusative verbs. Ditransitive verbs have only one ACC object, while the other complement bears a case (ALL, ABL, ADE or ELA) which is usually semantically predictable but may be idiosyncratic (Vainikka 1989:326). The lack of double accusative verbs might be attributed to the standard case-theoretic assumption that any case assigner has at most one case to assign. However, if certain adverbial NPs get syntactic case from the verb, as I have argued here, we must ask whether objects compete with adverbial NPs for a single syntactic ACC case in a finite clause where the subject receives NOM from the Case Tier. Unlike Chinese, an accusative object and an accusative adverbial can co-occur in Finnish, as illustrated in (16a) and (19).

- (19) Minä luen kirjan kolmannen kerran.  
I(NOM) read book+ACC third time+ACC  
'I read the book for a third time'

SUBJ OBJ ADV  
| /  
NOM ACC

This indicates that there is Case-spreading in Finnish. Under the Case-Tier hypothesis, we expect NOM to be assigned to the first available NP on the hierarchy, and ACC from the Case-Tier will spread rightwards, associating with any available NP(s). This is exactly what happens when there is more than one adverbial NP in a clause: only the first adverbial gets NOM in impersonal constructions, and the others get ACC.

- (20) a. Käveltiin koko talvi/\*talven  
walked+PASS whole winter+NOM/\*ACC  
'there was walked the whole winter'
- b. Kävellään kilometri koko talven/\*talvi  
walked+PASS kilometer(NOM) whole winter+ACC/\*NOM  
'there was walked a kilometer the whole winter'

It seems unlikely that the first adverbial gets NOM because it has actually been "promoted" to OBJ, given that the same NOM case-marking occurs in the presence of lexically case-marked objects, as in (21).<sup>10</sup>

- (21) a. Kekkoseen luotettiin kolmas kerta.  
Kekkonen+ILL trust+PASS third time(NOM)  
'Kekkonen was trusted for a third time'
- b. Kekkoseen luotettiin kuusi vuotta kolmannen kerran.  
Kekkonen+ILL trust+PASS [six(NOM)years+PAR] third time+ACC  
'Kekkonen was trusted for six years for the third time'
- c. Kekkoseen luotettiin yksi vuosi kolmannen kerran.  
Kekkonen+ILL trust+PASS one year(NOM) third time+ACC  
'Kekkonen was trusted for a year for the third time'

(Urho Kekkonen is a former president of Finland who was elected to several six-year terms of office.) It is actually impossible to tell the case of *kuusi* 'six' in (21b), since cardinal numbers other than *yksi* 'one' are invariant, so I have changed the example to the pragmatically less natural (21c). Unlike other cardinals, *yksi* has both suffixed (ACC) and unsuffixed (NOM) "accusative" forms. If the matrix verb is finite, then both adverbials will get marked accusative, as expected.

- (22) Luotin Kekkoseen yhden vuoden kolmannen kerran.  
trust+ISG Kekkonen+ILL one year+ACC third time+ACC  
'I trusted Kekkonen for a year for the third time'

I said earlier that if there is more than one adverbial, only the first one gets assigned NOM. What do we mean by "the first" adverbial? Not surprisingly, the linear order of the adverbial phrases is irrelevant, as illustrated in (23b,c): the duration phrase gets marked NOM ('yksi vuosi') and the frequency phrase gets ACC ('yhden kerran'):

- (23) a. Kekkoseen luotettiin yksi kerta.  
Kekkonen+ILL trust+PASS one time+NOM  
'Kekkonen was trusted once'
- b. Kekkoseen luotettiin yksi vuosi yhden kerran.  
Kekkonen+ILL trust+PASS one year(NOM) one time+ACC  
'Kekkonen was trusted for one year once'
- c. Kekkoseen luotettiin yhden kerran yksi vuosi.  
Kekkonen+ILL trust+PASS one time+ACC one year+NOM

The fact that linear order does not affect the case-marking of the adverbials suggests that the GF hierarchy must distinguish between the different classes.

<sup>10</sup> In (17b), the numeral *kuusi* is the head of the NumP *kuusi vuotta* 'six years' and the noun is in the partitive. This is true only when the NP is NOM or ACC; the other case forms are regular (i.e. the numeral and noun agree in case and number).

A duration adverbial takes precedence over the frequency adverbial in getting NOM case.

- (24) a. \*Kekkoseen luotettiin kuusi vuotta kolmas kerta.  
 Kekkonen+ILL trust+PASS [six years+PAR] third time+NOM  
 b. \*Kekkoseen luotettiin kolmas kerta kuusi vuotta.

This suggests that the GF hierarchy should be SUBJ > OBJ > MEASURE > DUR > FREQ. Further evidence that the ADVERBIAL GF should be divided into two categories is the fact that for some speakers, FREQ adverbials of this type do not participate in the NOM/ACC alternation. For such speakers, while duration adverbials occur with either the zero or the *n* suffix under the same conditions as verbal objects, many frequency adverbials like *kolmannen kerran/kolmatta kertaa* alternate only between the (accusative) *n* suffix and partitive. The grammar books report that the language is still in a state of flux with respect to this issue (Lauri Karttunen, p.c.).

#### 2.4 Summary of the Case-Tier

The fundamental assumption of the Case-Tier Hypothesis is that NOM and ACC form a syntactic case-tier which is mapped onto the NPs of a sentence one-to-one left-to-right by principles analogous to those of autosegmental phonology. The basic predictions of this Case-tier Hypothesis are summarized in (25):

- (25) a. NOM is assigned before ACC.  
 b. only one XP can get assigned NOM, any remaining NPs get ACC  
 c. which XP gets NOM reflects the hierarchy of GFs, where  
 SUBJ > OBJ > MEASURE > DUR > FREQ

On the further assumption that NPs already bearing morphological case, however assigned, are unavailable for mapping onto the syntactic Case Tier, the presence of such case marking will induce the by now familiar Case Tier shift. Because Finnish has lexical case marking and includes adverbials in the domain of the syntactic Case-tier, Finnish provides convincing evidence of Case Tier shift from various sources of case-marking. These are sketched in the diagrams in (26), where ADV is an abbreviation for any of the various adverbial functions lower than OBJ.

#### (26) Case-tier Shifts:

- a. GEN                      b.        LEX  
 |                              |  
 SUBJ > OBJ > ADV      SUBJ > OBJ > ADV  
 /                              /  
 NOM    ACC                  NOM    ACC
- c. GEN    LEX  
 |        |  
 SUBJ > OBJ > ADV  
 /                      /  
 NOM    ACC

If there is no extra source of case-marking, then the ACC spreads to any additional NPs, as sketched in (27):

- (27) SUBJ > OBJ > ADV  
 |                      |  
 NOM    ACC

As we have seen, all of these case patterns are attested in Finnish.

#### 2.5 Partitive and Case-Tier Shift

Since Partitive Case plays such a major role in Finnish syntax, the question arises as to how it fits into the case-marking system. Does Partitive on an object behave like lexical case, i.e. does it induce Case-Tier shift? Or is it an "overlay" case with no effect whatsoever on the assignment of syntactic cases? The answer is unfortunately not as clear as one would like. If PAR is like lexical case, it would be expected to induce Case-Tier shift. Indeed, in many impersonal sentences, NOM on the adverbial is clearly much better than ACC, whether the verb assigns lexical case to its object as in (28a) or governs a partitive object, as in (28b):

- (28) a. Siellä kieltäydyttiin oluesta koko ilta/?koko illan  
 there+ADE refuse+PASS beer+ELA all evening+NOM/?ACC  
 beer was refused there all evening'  
 b. Siellä haistettiin savua koko ilta/?koko illan  
 there smell+PASS smoke+PAR all evening+NOM/?ACC

However, for other verbs which take PAR objects, and although NOM is the preferred case on the adverbial of duration in impersonal constructions, ACC also seems possible even in the absence of a NOM NP.

- (29) a. Lapsen täytyy soittaa pianoa koko päivä/koko päivän  
 child+GEN must play piano+PAR all day+NOM/ACC  
 b. Lapsen täytyy opiskella englantia koko vuosi/koko vuoden.  
 child+GEN must study English+PAR all year+NOM/ACC  
 c. Lapsi opiskelee englantia koko vuoden/\*vuosi.  
 child(NOM) study+3SG English+PAR all year+ACC/\*NOM  
 'the child studies English all year'

As expected, NOM case-marking on the adverbial is impossible if the matrix verb is finite, as in (29c).

The same variation in the case-marking of the adverbial occurs with activity verbs whose objects can be either ACC or PAR depending on the aspect:

- (30) a. Lapsen täytyy lyödä Jukkaa kolmas kerta/kolmannen kerran.  
 child+GEN must hit+INF Jukka+PAR third time+NOM/ACC

- b. Minun täytyy lukea kirjaa ilta/illan.  
 I+GEN must read+INF book+PAR evening+NOM/ACC  
 'I must read a book for an evening'

The use of NOM on the adverbial suggests that PAR is being analyzed as a lexical case; the use of ACC suggests that PAR is being treated as an "overlay" case with no Case-Tier effect. Further investigation of the effect of Partitive is beyond the scope of this study.

An object in a negative sentence must always be in the partitive, as illustrated in (31b); the same is true of measure phrases like 'kilometri.'

- (31) a. Liisa lukee kirjan  
 Liisa reads book-ACC  
 Liisa will read the book'  
 b. Liisa ei lue kirjaa/\*kirjan  
 Liisa not read book-PAR/\*ACC  
 'Liisa won't read the book/Liisa is not reading the book'

However, the NP-argument of the existential and possessive constructions may stay in the NOM (zero-suffix) rather than the partitive in a contradictory negative sentence:

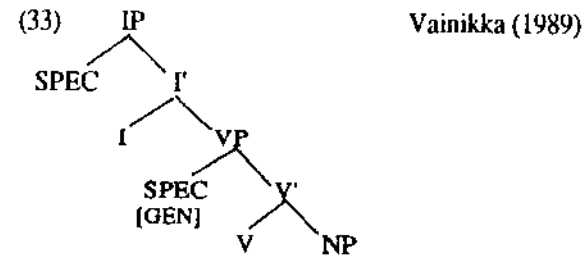
- (32) a. Talossa ei ole kissaa / kissa.  
 house+INE not be cat+PAR cat+NOM  
 'There is no cat in the house'  
 b. Liisalla ei ole kissa (vaan koira).  
 Liisa+ADE not be cat(NOM) (but dog+NOM)  
 'Liisa doesn't have a cat (but a dog)'

Not surprisingly, there is considerable disagreement in the literature about the syntactic role (subject or object) and case (nominative or "endingless accusative") that *kissa* 'cat' has here when not partitive. Whatever its GF, the NOM case-marking, however, is exactly what is predicted under the Case-Tier hypothesis. It is the sole NP argument, and NOM is always assigned before ACC.

### 3. AN ALTERNATIVE ANALYSIS: VAINIKKA (1989)

Recall that GEN subjects and "ACC" objects are morphologically identical in the singular: they both have an *n* suffix. Vainikka (1989) exploits this morphological identity to account for the near complementary distribution between having an *n* suffix on the subject and on the object, by suggesting that both are instances of the same GEN case. The empirical claim is that GEN (on subject) and ACC/GEN (on object) are in complementary distribution

(p.237). Furthermore, she suggests that the "endingless accusative" is a default (NOM) case which arises because there is no accusative SG. form.<sup>11</sup>



two patterns:	abstract	m-case
	NOM ACC/GEN	-∅ -n
	GEN NOM	-n -∅

Vainikka assumes that all subjects are base-generated in [Spec,VP], but that this position is not generated for passives and other systematically impersonal constructions. GEN is the case assigned to [SPEC, XP] in Finnish. If GEN (*n*) is not assigned in [Spec,VP] because the subject moves to SPEC,IP, then the *n* percolates to any "receptive" NP within V'; the net result is that the object NP will get *n* suffix. In essence then, GEN *n* will be assigned whenever possible, to SPEC,VP if filled, otherwise to the NP-complement of V.

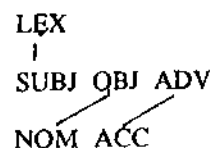
There are several problems with this account of nominative objects. First, it does not extend naturally to other languages (including older stages of Finnish) where the case of oblique subjects is not morphologically identical to the case on the object of finite verbs (e.g. DAT =/ ACC). Secondly, even within Finnish, there are counterexamples to the underlying generalization that GEN and ACC are in complementary distribution.<sup>12</sup> Vainikka's analysis leaves no source for *n* on adverbials in either impersonal constructions where by hypothesis GEN is not available because [Spec, VP] is not generated, or in impersonal constructions where GEN is assigned to an NP that remains in [SPEC,VP];

- (34) a. Lapsen oli jano yhden illan/\*yksi ilta  
 child+GEN be+PST thirst(NOM) one evening+ACC/\*NOM  
 'the child was thirsty for one evening'  
 b. Lapsella oli kirja koko päivän/\*päivä.  
 child+ADE be+PST book(NOM) all day+ACC/\*NOM  
 'a/the child had the book all day'

<sup>11</sup> In other words, there is a morphological gap, which seems to me to be a rather odd claim for a language like Finnish with no shortage of morphological cases.

<sup>12</sup> As Urpo Nikanne pointed out to me (personal communication), -n can also occur on objects inside NP in the *minen* construction. This contradicts Vainikka's claim that "accusative case only occurs with the category V; only V's can have the feature [+completed]" p. 253).



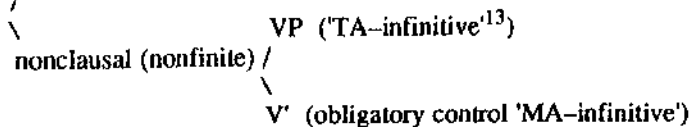


In order to account for the zero+suffix on *kirja* 'book', Vainikka must assume that no SPEC,VP is generated for this impersonal construction, hence no GEN *n* suffix is generated; but then there is no source for the *n* suffix on the adverbial of duration, which as we have seen seems to get syntactic case in Finnish.

#### 4. NONFINITE COMPLEMENTS

Thus far, we have considered only verbs which are monotransitive. Let us now consider VP-complements which occur as arguments of a matrix verb. Following Vainikka (1989, Chapter 5). There are two kinds of verbal complements: clausal (IP) and nonclausal (VP or V').

(35) clausal (IP)



The TA-infinitive has the distribution of a direct object (Vainikka 1989:249), while the MA-infinitive has the syntactic category and distribution of a locative PP (Nikanne 1988); note that the MA-infinitive bears the same locative case (INE, ELA or ILL) as a PP-complement to the same matrix verb. These two constructions are productively used in Standard Finnish and are common in colloquial Finnish as well.

Finite complements may be assumed to have their own Case-Tier; only the non-finite complements are of interest here. As Vainikka observes (p. 243), there are at least a dozen productively used non-finite verb forms in Finnish, and they all share the following features:

- (36) a. they do not allow nominative subjects;  
 b. they do not allow the negative verb;  
 c. they do not allow the auxiliary verb *olla* (or any of the four tenses found in tensed sentences)

Vainikka (1989:244) accounts for these properties by assuming that subjects are base-generated in [Spec,VP] position, and that the non-finite complements lack an IP. They therefore lack both [SPEC,IP] and INFL. As a consequence, there is no position in which agreement suffixes, the negative verb or the auxiliary verb can be base-generated. Furthermore, the subject cannot raise to [Spec,IP] and will therefore be assigned GEN. The genitive NP is clearly not a matrix object since no verb in Finnish takes a genitive object (p.284). Of particular interest is the fact that the alternation between NOM and ACC assigned to complements of impersonal verbs extends to the objects of infinitival complements.

- (37) a. Matti antoi Jukan syödä suklaan.  
 Matti(NOM) let+PST(3SG) Jukka+GEN eat+INF chocolate+ACC  
 'Matti let Jukka eat the chocolate' (ibid.: 284, 39a,b)  
 b. Anna Jukan syödä suklaa/\*suklaan!  
 Let+IMP-2SG Jukka+GEN eat+INF chocolate+NOM/\*ACC  
 'Let Jukka eat the chocolate!'

Obligatory control MA-infinitives, which are categorially V' rather than VP, lack even a [SPEC,VP] position; so here too ACC/GEN objects are possible only if the *matrix* verb agrees with its nominative subject, a feature available due to the matrix [SPEC,VP] position.

- (39) a. Pekka kävi ostamassa solmion/\*solmio  
 Pekka(NOM) went buy+MA+INE tie+ACC/\*NOM  
 'Pekka went to buy a tie' (ibid.: 254, 7a,b)  
 b. Käy ostamassa solmio!/\*solmion  
 go buy+MA+INE tie+NOM/\*ACC  
 'Go buy a tie!'

In both of these sentences, the verb implies completion, so we get grammatical case as opposed to partitive on the infinitival object. The choice between NOM or ACC case depends on the matrix verb: if the matrix V agrees with a NOM subject, the infinitival object is ACC; if the matrix verb is such that its object would occur in NOM (i.e. passive, imperative, and in certain impersonal verbs), then the infinitival object is NOM. This effect is not restricted to one clause, i.e. it is recursive.

- (40) a. Pekka muisti käydä ostamassa solmion/\*solmio.  
 Pekka(NOM) remembered go+TA buy+MA+INE tie+ACC/\*NOM  
 'Pekka remembered to go buy a tie' (ibid.: 255, 8a,b)  
 b. Muista käydä ostamassa solmio!/\*solmion.  
 remember go+TA buy+MA+INE tie+NOM/\*ACC  
 'Remember to go buy a tie!'

The basic problem, then, is to account for why the embedded VP "inherits" the case-assigning properties of the matrix V. It is clear that these non-finite

<sup>13</sup> The traditional terms for what Vainikka calls the TA-infinitive and MA-infinitive are the *partitive infinitive* and the *locative infinitive*, respectively.

Case with their matrix controller.<sup>14</sup> This would not give the desired result within the Case-Tier framework, since whatever decision we made about assigning Case to PRO, it would not vary depending on the matrix verb, and we would not get the desired alternations in Case. Even if the matrix V is [+completed], its agreement features determine the case (NOM vs ACC) on the object of the infinitival complement:

- (41) a. Maija pyysi Jukka lukemaan kirjan.  
 Maija(NOM) asked Jukka+ACC read+MA<sup>15</sup>+ILL book+ACC  
 'Maija asked Jukka to read the book' (ibid.: 267: 18b)  
 b. Pyydä Jukka lukemaan kirja/\*kirjan.  
 ask Jukka(NOM) read+MA+ILL book+NOM/\*ACC  
 'Ask Jukka to read the book!' (ibid.: 267: 19)

Vainikka's explanation is that the genitive feature (the *n* suffix) from matrix [SPEC,VP] percolates to all "receptive" NPs, i.e. goes down into the infinitival complement; however, if no GEN is base-generated in the matrix [SPEC,VP] because the matrix is one of the various impersonal constructions, then neither matrix nor embedded object will be able to get a genitive suffix. But this cannot be correct, since the genitive feature can be realized on an adverbial NP:

- (41) Pyydä Jukka lukemaan kirja kolmannen kerran.  
 Ask+IMP+2SG Jukka(NOM) read+MA+ILL book(NOM) third  
 time+ACC  
 'Ask Jukka to read the book for the third time!'

If such adverbials get case from the syntactic Case Tier, as I have argued here, then ACC must still be available even in those constructions which form the domain of "nominative objects" in Finnish. This is entirely expected under the Case-Tier Hypothesis: the availability of NOM and ACC is entirely independent of the assignment of GEN to [SPEC,VP].

Adapting Vainikka's analysis of infinitival complements to the Case-Tier Hypothesis, let us assume that such VP-complements are transparent to case assignment from the matrix clause. In other words, unlike IPs, VPs are not a barrier to case-assignment (cf. Emonds 1989).<sup>16</sup> Since these infinitival complements function as arguments of the matrix verb, let us assume that they are assigned syntactic case in the same way that NP-complements would be. However, since a VP is not itself capable of bearing Case, the Case feature is

<sup>14</sup> As seems plausible for some subject control complements in Russian, for example. See Neidle (1988, Chapter 5) and Babby (1990) for discussion.

<sup>15</sup> "MA" and "TA" in the glosses stand for MA- and TA-infinitives

<sup>16</sup> This means that that syntactic case percolates down through a complement which is itself assigned lexical case. As indicated in the glosses, the VP-complement is itself assigned a locative case which is realized on the infinitival head. This is the same case that would be assigned to a corresponding PP-complement (Nikanne 1988).

transmitted from the embedded VP to its head (as suggested, for example, by Rouveret and Vergnaud (1980) and Rosen (1990) for Romance causatives). This gives the appearance that structural case can percolate down into the infinitival VP-complement to any "receptive" NP.

Although Case-Tier shift easily accounts for the ACC case-marking on an adverbial following a NOM object, examples like (41) pose a different problem for the Case-Tier Hypothesis, since NOM is assigned two different NPs, both the matrix object and the infinitival object. How can this spreading of NOM be reconciled with the apparent Case-shift of ACC onto the adverbial NP?

I suggest that the solution to this problem lies in the following descriptive generalization.

- (42) All *internal* arguments of a predicate must get the same syntactic case.<sup>17</sup>

The clearest evidence for this generalization comes from Korean, which is well-known for having a variety of "multiple Accusative" constructions. When such sentences are passivized, all of the accusatives become nominative, as illustrated below:

- (43)  
 a. Cheli+ka Mary+lul panci+lul senmul+ul ha+ess+ta ACTIVE  
 Cheli+NOM Mary+ACC ring+ACC gift+ACC do+PST+DEC  
 'Cheli presented Mary with a ring'  
 b. Mary+ka panci+ka senmul+ka toy+ess+ta PASSIVE  
 Mary+NOM ring+NOM gift+NOM become+PST+DEC  
 'Mary was presented with a ring'

Now consider different case-marking properties of the so-called lexical passive, illustrated below in conjunction with the Inalienable Possession Construction. Unlike the syntactic passive, the lexical passive is ambiguous between a case-absorbing passive (44a) and a verb which is semantically passive but nonetheless an accusative case assigner (44b):

<sup>17</sup> Note that this formulation correctly allows for the accusative case-marking on the retained object in the passive of ditransitives in English.

(i) He was given them.

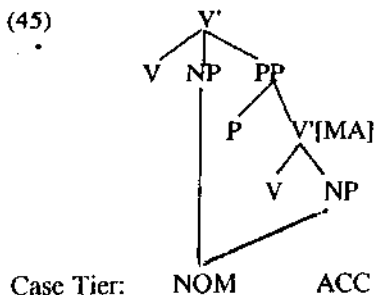
I assume that in English, the surface subject of passive is no longer an internal argument, and hence its case-marking can differ from the case of the retained object. In Finnish, however, there is no evidence that passive morphology results in the promotion of an internal argument.

Different internal arguments can, of course, bear different morphological cases if other sources of case-marking are available in a language, e.g. lexical case-marking, or case assigned to a particular configurational position such as [SPEC,VP] (a possibility for which the term "structural case" should properly be reserved). If this suggestion is on the right track, it indicates that the Case Tier maps onto both direct and indirect objects at once; in other words, the GF hierarchy is not articulated into two object functions, at least for the purposes of assigning syntactic case.

- (44) a. Yumi+ka *phal+i oynccok+il\*ul kkuth+il\*ul cap+hi+ess+ta.*  
 Yumi+NOM arm+NOM left+side+NOM/\*ACC end+NOM/\*ACC  
 catch+PASS+PST+IND
- b. Yumi+ka *phal+ul oynccok+ul\*i kkuth+ul\*i cap+hi+ess+ta.*  
 Yumi+NOM arm+NOM left+side+ACC/\*NOM end+ACC/\*NOM  
 catch+PASS+PST+IND  
 'Yumi was caught by the arm on the left side at the end'

Superficially the object(s) of a lexical passive can be either NOM or ACC; however, if there is more than one object, their case marking cannot vary independently. Since only one NP can be the surface subject, the remaining NPs must all be internal arguments, and the internal arguments necessarily share the same syntactic case. See Maling and Kim (1992) for further discussion.

Returning to Finnish, then, recall our assumption that infinitival VP-complements are transparent to case assignment from the matrix clause, and get assigned syntactic case in the same way that an NP-complement would. For simple clauses, there is no overt evidence for the generalization that all internal arguments bear the same syntactic case; as noted above, any verb that subcategorizes for two NPs has only one ACC object, while the other complement bears a locative case (ALL, ABL, ADE, ELA) which is usually semantically predictable, but may be idiosyncratic (Vainikka 1989:326). However, when the locative complement is infinitival, we do see overt evidence that the same syntactic case is assigned to both complements, since the same case is realized on both matrix and infinitival object. This is sketched below (cf Vainikka (1989:260) for discussion of the phrase structure of (object-) control verbs):



What we want to say is that verbs which take infinitival complements are not exceptional, but have exactly the same case-assigning properties as other verbs of the language. This phenomenon is reminiscent of causativization: cross-linguistically, the output behaves like a single verb/complex predicate with respect to case assignment (Rosen 1989). Two alternative analyses come to mind: merger (complex predicate formation), or alternatively, we might assume that the Case Tier is associated only with IP, so that when the infinitival complement is a bare VP, only one Case Tier is available. Whichever analysis is correct for Finnish as internal arguments of the matrix verb, both NP and

the MA-infinitive must be assigned the same syntactic case in accordance with the generalization in (42).

What about the case on adverbials? It is possible to have sentence adverbials modifying either the matrix or the embedded infinitive, or both.

- (46) Pyydä Jukka kolmannen kerran lukemaan kirja.  
 Ask Jukka+NOM third time+ACC read+MA+ILL book+NOM  
 'Ask Jukka for the third time to read the book!'  
 'Ask Jukka to read the book for the third time!'

Consider now what happens if the infinitival verb assigns lexical case. In the following example, the infinitival verb *vastata* 'to answer' takes an ILL object. If the VP-complement supplied its own Case-Tier, we would expect NOM from the Case-Tier to shift over to any Adverbial; however, this is not what happens.

- (47) *Oppilas pakotettiin kolmannen kerran!*\*kolmas kerta  
 pupil(NOM) force+PASS+PST third time+ACC/\*NOM  
*vastaamaan kysymykseen tunnin!*\*tunti.  
 to+answer+ILL question+PL+ILL hour+ACC/\*NOM  
 'the pupil was forced for the 3rd time to answer questions for an hour'

The case on the adverbial modifying the infinitive is determined not by the case-assigning properties of the infinitive, but by the properties of the matrix V. This indicates that its case is supplied by the matrix Case Tier.<sup>18</sup> The

<sup>18</sup> Under the Case-Tier Hypothesis, NOM on the adverbial is predicted to be impossible whenever it has already been assigned. This is clearly correct for sentences with nominative subjects, but informant work with Urpo Nikanne produced occasional examples of NOM being assigned to both object and adverbial:

- (i) Pyydä kansa luottamaan Kekkosen kolmas kerta!  
 ask-IMP people-NOM to-trust Kekkonen-ILL third time-NOM
- (ii) Käske kolmas kerta presidentti vastaamaan kysymykseen tunti.  
 Order third time+NOM president(NOM) to-answer question hour(NOM)!
- (iii) Käske kolmannen kerran presidentti vastaamaan kysymykseen tunnia.  
 Order third time+ACC president(NOM) to-answer question hour+ACC  
 'Order the president for a third time to answer questions for an hour!'

The possibility of NOM case on *kolmas kerta* is totally unexpected. I suspect that the problem lies in the oddness of having NOM on object of matrix verb. These examples were produced when the informant was asked to use nominative rather than the strongly preferred partitive on the matrix object. Urpo continued to prefer NOM on *kolmas kerta*; while ACC was judged acceptable as long as the case on *tunti* (N) also changed to *tunnin* (ACC).

Note that in the absence of an infinitival complement, PAR is obligatory on object, and as a result, the adverbial can be either NOM or ACC:

- (iii) Käske oppilasta/\*oppilas kolmas kerta/kolmannen kerran!  
 order-IMP student-PAR/\*NOM third time-NOM/ACC  
 'Order the student a third time'

Resolution of these problems will be

matrix object can be PAR (implying resistance to the pressure), in which case NOM becomes possible on the adverbials as well (see section 2.5 above):

- (48) *Oppilasta pakotettiin kolmannen kerran/kolmas kerta*  
 pupil+PAR force+PASS+PST third time+ACC/NOM  
*vastaamaan kysymykseen tunnintunti.*  
 to-answer+ILL question+PL+ILL hour+ACC/NOM  
 'they tried to force the student for the 3rd time to answer questions for an hour'

What is especially telling is the fact that matrix adverbial and embedded adverbial tend to agree in case: they are either both NOM or both ACC. This is as expected if the entire sentence is treated as a single domain with respect to the Case-Tier. Of course, if the matrix verb is finite, then NOM on the adverbial is no longer possible, as illustrated below:

- (49) *Fuomari käski kolmannen kerran/\*kolmas kerta presidentin*  
 judge+NOM order+PST third time+ACC/\*NOM president+ACC  
*vastaamaan kysymykseen tunnintunti*  
 to-answer questions+ILL hour+ACC/\*NOM  
 'the judge ordered the president for the third time to answer questions for an hour'

In conclusion, I have argued in this section that sentences with VP-complements are treated as one domain for the Case Tier, and that verbal objects must share the same syntactic case, being either both accusative or both nominative. This study is by no means a definitive study of Finnish case-marking; for example, various participial complements are not treated here.<sup>19</sup> My hope is that it contributes nonetheless to our understanding not just of Finnish, but of the possible case systems used by natural languages. Finnish is by no means unique in exhibiting lexical case-marking, structurally assigned

<sup>19</sup> See Vainikka (1990, Chapter 5.3), who notes that the form of the object in the "clausal" constructions, including participial complements, is somewhat independent of the matrix verb. My own informant work reveals that the preferred case on what is traditionally called the 'subject of the participial clause' depends in part on the type of predicate.

- (i) *Luulin lapsella olevan janon/\*janon.*  
 thought+1SG child+ADJ: be+PTC thirst+NOM/\*ACC  
 'I thought the child to be thirsty'  
 (ii) *Luulin lapsella olevan ?kirja/kirjan.*  
 thought+1SG child+ADE be+PTC book+?NOM/ACC  
 'I thought the child to have a book'

As Lauri Karttunen (p.c) pointed out to me, these judgments are the opposite of the claim of Hakulinen and Karlsson (1979:364) that the nominative is more likely in a possessive than in an existential participial clause.

Another factor affecting the case marking is use of contrastive word order:

- (iii) *Odotin Leenalle syntyvän kaksoet/\*kaksosten.*  
 expect+PST+1SG Leena+ALL be-bom twins+NOM/\*ACC  
 'I expected Leena to have twins'  
 (iv) *Kaksosten/kaksoset odotin Leenalle syntyvän*

case to [SPEC,VP], and in including adverbials in the domain of syntactic case. But in Finnish these properties interact so as to provide uniquely visible evidence in support of the Case-Tier Hypothesis: of both subject and object bear an oblique case, NOM from the syntactic CaseTier shifts over not just one, but two NPs. Most significant is the claim is that the so-called "structural Cases" NOM and ACC are assigned neither to particular configurational positions nor to particular grammatical functions, but hierarchically along a hierarchy of grammatical functions, to the highest available NPs not already case-marked.

##### 5. COMPARING ICELANDIC AND FINNISH

Icelandic is another language known to have nominative objects. However, nominative objects seem to occur in quite different syntactic environments in the two languages:

- (50) a. Nominative objects occur in both finite and nonfinite clauses in Icelandic, whereas in Finnish they are found primarily in nonfinite constructions (but also in imperatives and passives).  
 b. In Icelandic, nominative objects occur only as complements to nonagentive verbs (including passives); in Finnish, there are no such lexical restrictions.  
 c. In Finnish but not Icelandic, human personal pronouns are exempt from the nominative object construction.  
 d. In Icelandic but not Finnish, the finite verb agrees with the nominative object (in number).  
 e. As in many languages, grammatical (NOM or ACC) case can be assigned to various kinds of adverbial NPs, including cognate objects, path-NPs, and certain adverbials of temporal duration. Finnish but not Icelandic includes adverbials of duration in the domain of "nominative objects."

Despite these differences, Finnish and Icelandic have something in common: NOM case occurs on the object only in constructions which happen not to have a NOM subject.<sup>20</sup> This paper explores the hypothesis that NOM is assigned

<sup>20</sup> This generalization is often referred to as "Jahnsson's rule" (after the author of a grammar of Finnish for Swedish speakers that appeared in the 1886). Jahnsson observed that the object is in the nominative case only in sentences that do not have a nominative subject. Although this generalization is a good rule of thumb, there are three counterexamples: (1) generic sentences (the "missing person construction"); (2) certain participial constructions, discussed in Section 4; and (3) the gradual replacement of the 1st person plural verb form ("me lueimme" 'we read') by the so-called passive ("me luetaan" 'we read') in modern colloquial Finnish (Lauri Karttunen, p.c.). Of these, the third is the most problematic, but since colloquial Finnish differs from Standard Finnish in a variety of ways, such examples cannot be analysed in isolation. The first type is not actually a problem. What actually matters is not the presence of a NOM subject, but the form of the matrix verb. Any finite verb form is treated as if it

not by a particular category or in a particular configurational position, but rather is assigned to the highest available grammatical function which lacks morphological case at whatever level grammatical case is assigned (Zaenen *et al.* 1985, Yip *et al.* 1987). The major differences between Finnish and Icelandic are due to the different sources for nonnominative case marking on grammatical subjects. In Icelandic this is lexically governed; e.g. experiencer subjects are often DAT. In Finnish however, GEN seems to be a structural default case assigned to [SPEC, VP] (Vainikka 1989:140). The lack of lexical restrictions on nominative objects follows from the hypothesis that all subjects are base-generated in [SPEC, VP], where they can receive GEN case if raising to [SPEC, IP] is blocked, typically in nonfinite complements. Of particular interest is the evidence that Finnish case-marking provides for articulating the GF hierarchy into different classes of adverbials.

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## On Assigning Semantic Cases in Finnish<sup>1</sup>

Urpo Nikanne  
University of Helsinki

### 1. INTRODUCTION

The Finnish case system is traditionally taken to consist of two types of cases: (i) structural cases: nominative, genitive, partitive, and accusative; (ii) semantic cases, which are divided into two subgroups: (a) locative cases: (aa) internal locative cases: inessive, elative, illative; (ab) external locative cases: adessive, ablative, allative; (ac) general locative cases: essive and translative; (b) marginal cases: abessive, instructive, comitative, prolativ etc. (See the introduction of this volume.)

It is often assumed that the structural cases reflect the syntactic relations and semantic cases the thematic relations of the sentence. I will argue that all case marking is structural. Following Jackendoff (1987a) I assume that language processing is a computational activity. In language interpretation one translates the phonological structures into a syntactic format, and then the syntactic representation into a conceptual format. The supposed Logical Structure of Language Processing (Jackendoff 1987a: 92) is phonological structure  $\leftrightarrow$  syntactic structure  $\leftrightarrow$  conceptual structure.<sup>2</sup> The function of case marking is, then, to make the relevant level of syntactic representation recoverable.

### 2. THE CATEGORY OF THE "SEMANTIC CASE PHRASE" IS PP

The category of the phrase with semantic case inflection has been a problem for Finnish grammarians. It has the distribution of a PP while there seems to be no P around. For instance:

- (1) a. Elina käveli kohti koti+a  
Elina walked toward home+PAR  
'Elina walked toward home'

<sup>1</sup> This article is based on section 3.2 of Nikanne (1991), which, in turn, is based on the syntactic half of Nikanne (1989). I am grateful to Anders Holmberg, Ray Jackendoff, Joan Maling, Hannu Reime, Trond Trosterud, and Anne Vainikka among others for being interested in my work and for many enlightening discussions. Still, my friends are not responsible for my mistakes, faults and limboes.

<sup>2</sup> Of course, the sentence does not need to be analyzed in its entirety to the next level before the