

0. Introduction

Since Chomsky(1986)'s functional system for clauses, which was followed by Pollock(1989)'s theory of decomposing Infl(ection) into two independent categories, Tense and Agreement, an increasing number of functional categories have been proposed and/or promoted to a syntactical head which projects itself. While new functional phrases are posited below or above CP for a clausal system, other categories usually involved in verbal morphology are also presented, as an extension of the decomposition of Infl, to argue for the plausibility of their own syntactic autonomy. For example, word orders created by movement phenomena make an important contribution to arguments by providing apparent evidence for the existence of a head position. However, to establish the categories out of verbal paradigm as a projectional head, morphological facts are often employed. Some arguments are even put forward which (implicitly) presume the absolute isomorphism between morphology and syntax, where the mere existence of a functional-like morpheme in a verbal morphology is taken to predict a functional phrase, with the order of morphemes corresponding to the hierarchical or selectional relation in syntax. These arguments seem to take for granted that functional heads exist in a syntactic tree as concrete morphemes, for example, as affixes which are attached to a stem or another affix by the operation of Move Alpha, leaving a fully inflected word in the end. Following Janda and Kathman(1992), I refer to this way of understanding functional categories as the *concrete interpretation*, which contrasts with the *abstract interpretation* that sees functional heads as bundles of features.

This paper is concerned with functional categories, especially those

related to verbal paradigm, and Case marking in Finnish. In section 1, I will re-examine the clause structure with an expanded Infl proposed in Mitchell (1991) which was derived in the line of the concrete interpretation, pointing out facts which should have been included in her argument. In section 2, I will present Case phenomena in Finnish which appear to call for refinement in Case checking mechanism merely based on Agr and put forward suggestions for future investigation.

1. Functional Categories for Finnish Verbal Paradigm

Splitting Infl into Agr and Tense/Finite immediately encourages researchers engaged in the Finnish language to utilize this language to give compelling evidence for such a proposal, since in a negated sentence Finnish locates agreement and tense markers on different elements, i.e. in a negative "auxiliary" and in a main verb, respectively, while both of them are marked on the single main verb in an affirmative sentence. In fact, Mitchell(1991) proposes the following articulated clause structure below CP for the language:

(1) [_{AgrP}NP [_{AgrP}Agr [_{AstP}Ast [_{T/MP}T/M [_{AspP}Asp [_{VcP}Vc [_{vp}V ..]]]]]]]

In the above structure, T[ense] and M[ood] belong to one and the same head category, which embeds two functional heads, Asp[ect] and V[oi]c[e]. As[ser]t[ion] is a generalized functional category in charge of polarity: affirmative and negative. This structure, equipped with the general principles assumed in the Principles-and-Parameters Theory, is intended to be able to account for the Finnish verb paradigm, some of which are illustrated below, in particular for the order of morphemes.¹

- (2) a. puhu-n ~ puhu-i-n ~ puhu-isi-n
 speak-1SG *speak-PAST-1SG* *speak-CND-1SG*
- b. e-n puhu ~ e-n puhu-nut ~ e-n puhu-isi
 Neg-1SG speak *Neg-1SG speak-APP* *Neg-1SG speak-CND*

In (2) the indicative present, the indicative past, and the conditional (present)

for the first person singular are listed in this order, (2a) for positive forms and (2b) for the negative counterparts. Functional heads in (1) may be phonologically null: as shown in (2), the present forms have no overt tense marker, diverging from the other two with a morpheme indicating the past and the conditional, respectively. As I have already mentioned, in negative forms the person agreement and the tense/mood are each marked on different elements as illustrated in (2b), where the correct order and combination of morphemes will be obtained through locating AstP[+Neg], into which a lexical negative auxiliary (perhaps its stem form) is inserted as the head, between AgrP and T/MP, as is the case in (1). Here the auxiliary is raised to Agr, and the main verb to T/M position; the latter cannot be raised any more because the head position of AstP was occupied by a lexical element and is occupied by its trace. Thus for the negative paradigm, the configuration in (1) correctly yields two words, corresponding to [Neg-Agr] and [V-T/M]. Similarly, the passive forms in (3) and the perfect forms in (4), Mitchell claims, are properly treated with the structure (1), which tells us that the passive element should be morphologically closer to a verb (stem) than the aspectual auxiliary, as the surface forms in (3-4) indeed show.

- (3) a. puhu-ta-an ~ puhu-tt-i-in ~ puhu-tta-isi-in
 speak-PASS-POS speak-PASS-PAST-POS speak-PASS-CND-POS
 b. e-i puhu-ta ~ e-i puhu-ttu ~
 Neg-3SG speak-PASS Neg-3SG speak-PPP
 e-i puhu-tta-isi
 Neg-3SG speak-PASS-CND
- (4) a. ole-n puhu-nut ~ on puhu-ttu
 PRF-1SG speak-APP PRF/3SG speak-PPP
 b. e-n ole puhu-nut ~ e-i ole puhu-ttu
 Neg-1SG PRF speak-APP Neg-3SG PRF speak-PPP

We should notice, however, that discussion based on a wide range of syntactic materials is missing in Mitchell(1991) which I believe is indispensable in establishing a *syntactic* structure. In her brief article, Mitchell might leave

unworded a number of syntactic arguments which could have been included in a larger paper which would have more convincingly argued for her idea on structure. Nevertheless, we encounter difficulties with the structure (1) even from the point of view of morphology and morphosyntax, which should not be ignored before embarking on the syntactic discussion. In this section, I would like to make some remarks on her structure by offering additional materials in Finnish.

First, I will examine three less familiar categories, AstP, AspP and VcP. Of these, the most unfamiliar category is Ast, a generalized category reserved for polarity. Since the emergence of split Infl hypothesis, negation has been given the privilege to head a projection. Whereas the negative phrase is usually assumed to be optional, which is absent in an affirmative sentence, Mitchell(1991) has generalized this category to support both affirmation and negation, leading to the claim that it constitutes an obligatory phrase in a clause. In a negative sentence, Ast has a phonologically non-null lexical element, i.e. the negative auxiliary, while in an affirmative sentence, it appears overtly only with a passive morpheme as the element glossed "POS" in (3a) above. It may follow that the node should be posited in any way for the negative auxiliary which should be given a special status due to its inflectionally defective nature, so that to take one step further and generalize the node to comprise affirmation as well is conceptually and theoretically desirable (cf. Laka 1991). Yet empirically, it is hard to identify the last morpheme $-Vn^2$ in a passive. It is generally believed that the element in question is of common origin with a third person pronoun (cf. Hakulinen 1971).³ It is therefore an agreement-like element rather than the one manifesting a positive value of Assertion, and there are even some researchers who regard the form as the *fourth* person (cf. Hakulinen and Karlsson 1979). Indeed, in Finnish, it is not appropriate to speak of a passive in the same

sense as the English passive (see Shore 1988, for example), and some grammarians use the term "indefinite",⁴ because the form usually implies an indefinite human agent. One can only conclude here that the last element in a passive gives us no evidence for the functional head *Ast* rather than the (optional) *Neg*, though there may be room for investigation in syntax.

As for the other two categories, *AspP* and *VcP*, it is not obvious at this stage whether these categories with their respective names actually enjoy a special status in syntax. The aspectual head with a positive setting is realized as an independent lexical element *ole-* which is, in its usage, equivalent to the English perfect *have*. It seems that the perfect auxiliary, or so-called auxiliaries in general, which were formerly assigned the position *AUX*, obtain no uncontroversial definite position in a phrase structure today. For example, Chomsky(1986:73) considers such aspectual elements as *have* and *be* to be verbs, though "defective", which select a verb phrase. If the Finnish perfect "auxiliary", which also functions as a copula "be", can be regarded as a verb in a similar way, this aspectual element can dispense with a special functional head. The position of the perfect verb is determined by the subcategorizational selection rather than a predetermined clause structure, and this is also in the spirit of today's X-bar theory in its extreme version. Apart from the issue on the phrase *AspP*, however, there are some obscurities in Mitchell's argument as to the perfect construction. Just as in English, the Finnish perfect *ole-* selects a verb in past participle form as shown in (5).

- (5) *ole-n puhu-nut* ~ *ol-i-n puhu-nut*
PRF-1SG speak-APP PRF-PAST-1SG speak-APP

The same form is also selected by the negative auxiliary in the past tense:

- (6) *puhu-i-n* ~ *e-n puhu-nut*
speak-PAST-1SG Neg-1SG speak-APP

Regarding the appearance of the past participle form, Mitchell claims: "[i]n the scope of negation, the past tense morpheme becomes $\emptyset$. Any verb that is in

the scope of [+Past] that does not receive any overt past morpheme appears in the past participle form."(p.377) In the first place, it is not justified at all why the past morpheme loses its phonological content in negative. Even if this sort of rule were to be adopted, there still remains a problem in her argument. She applies the same rule to the perfect: "the main verb remains in situ and appears in the past participle form, since it is in the scope of [+Past], an inherent category of [+Perfective]."(p.377) She notes in a footnote that the aspect denoted by the forms in (5) is perfect, not perfective, but in the above citation, she writes "Perfective", though this may be a simple typo. More noteworthy is the way she predicts a past participle form in the perfect. She argues that the feature [+Perfect(ive)] inherently implies the feature [+Past], but this seems to distort the fact in Finnish, which has no independent tense form to represent a future event and usually uses a present form for that purpose.

- (7) Jatkan työtäni huomenna.
 continue-1SG work-PAR-my tomorrow

"I'll continue my work tomorrow."

Without the word *huomenna* "tomorrow", the sentence in (7) can also mean "I'm continuing my work". This is also the case with the perfect construction. The perfect in a present form can be used as the future perfect, which signifies that the relevant event will have been done before some reference point.

- (8) Huomenna Aino on ollut jo kaksi viikkoa Suomessa.
 tomorrow Aino PRF be-APP already two week-PAR Finland-INE

"Tomorrow Aino will have already been in Finland for two weeks."

Could it make sense to say that the meaning of the sentence (8) includes a [+Past]? If one re-interprets the feature in the sense of "relative past", it might not be unreasonable that the perfect implies such a feature, and yet to the extent that Mitchell is (implicitly) faithful to the concrete interpretation,

she would be forced to assume that a participle also makes its own projection, say, PrtP (Participle Phrase). Then one could suppose that the participle is not generated during a syntactic derivation, but rather that PrtP is there, to begin with, as a selected phrase. The following would be the perfect phrase in Finnish:

- (9) [_{VP} ole- [_{PrtP} -nut⁵ [_{VP} V
 --> ole- V-nut (after V-to-Prt raising)

One might also be inclined to stipulate a similar selection by the negative in the past tense:

- (10) [_{NegP} e- [_{PrtP} -nut [_{VP} V
 --> e- V-nut (after V-to-Prt raising)

I leave the matter open, since it is beyond the scope of this paper to explore the (more abstractly interpreted) structures in (9-10) at the level of syntax.⁶

The other category Voice is posited to deal with a passive affix. Unlike the head Asp, there is no lexical element which independently occupies this position. What has to be noted is that a passive form can feed a morphological process, i.e. it can be a base for word formation. For instance, a passive stem can be expanded to a present participle. This formation is productive, and the basic meaning is "(something) to be done".

- (11) a. kirjoite-tta-va kirje
 write-PASS-PRSP letter
 "a letter to be written; a letter which is (being) written"
 b. luotettavuus "trustworthiness", nähtävyys "sight(s);
 rangaistavaisuus "punishability", uskottavaisuus "credibility"

In (11a), the passive present participle is used as an adjective. In addition, a passive present participle can further derive another word; the words in (11b) taken from Lazar(1975:97) exemplify abstract nouns with the ending -UUs or -isUUs⁷ derived from a passive present participle (passive morphemes are single-underlined and present participle morphemes double-underlined).⁸ We

are now confronted with the vexing question: how could a passive form serve as a base for word formation if it is to be formed by syntactic movement in the structure (1)? At least, the abstract interpretation is not inconsistent with this, since the functional heads are simply feature-bundles and the words are introduced into a tree as fully inflected. In other words, one could claim that morphological formations belong to the Lexicon, whether derivational or inflectional,⁹ this being the strong Lexicalist Hypothesis. On the other hand, arguments are also presented which stand on a weaker version of the Hypothesis or which object to the Hypothesis itself.¹⁰ Whichever may be plausible, we have to await pros and cons on the passive construction from syntax.

Now I turn to a more serious issue raised by the imperative paradigm, which Mitchell(1991) herself does not analyze in the main text, just noting in a footnote that "[t]he morphological marker for the imperative is in fact a bit more complicated than the other two moods [conditional and potential --YK], but it does not present any major problems for the proposed analysis."(p.376) I would like to show that it is not a simple task to carry on with the configuration in (1) as it stands when one actually tries to incorporate the imperative forms, which are illustrated below. (The first singular has no imperative form.)

(12) a.	----			puhu-kaa-mme	
				<i>speak-IMP-1PL</i>	
	puhu			puhu-kaa	
	<i>speak/IMP/2SG</i>			<i>speak-IMP/2PL</i>	
	puhu-koon			puhu-koot	
	<i>speak-IMP/3SG</i>			<i>speak-IMP/3PL</i>	
b.	----			äl-kää-mme	puhu-ko
				<i>Neg-IMP-1PL</i>	<i>speak-KO</i>
	älä	puhu		äl-kää	puhu-ko
	<i>Neg/IMP/2SG</i>	<i>speak</i>		<i>Neg-IMP/2PL</i>	<i>speak-KO</i>
	äl-köön	puhu-ko		äl-kööt	puhu-ko
	<i>Neg-IMP/3SG</i>	<i>speak-KO</i>		<i>Neg-IMP/3PL</i>	<i>speak-KO</i>

As seen in (12), the morphological parallelism between the positive (main verb) and the negative (auxiliary) is fairly clear. What is remarkable compared with the other tense/mood forms is that the negative auxiliary is inflected with respect to mood, which would otherwise be on a main verb. How can this imperative paradigm be explained in a Mitchellian structure? Consider the following structures after the syntactic movement in positive (13a) and negative (13b) (I ignore the categories AspP and VcP in the following argument):

- (13) a. V-M_{Imp}-Agr
 b. Neg-M_{Imp}-Agr V /V_[-2SG] --> V-kO

The derivation and the resulting structure of positive imperative is relatively unproblematic. In order to maintain the morphological parallelism between positive and negative, one must conclude that the latter, which consists of two words as the other moods, has the structure in (13b). This derivation indicates that the functional head Mood[+Imperative] raises to be adjoined to the negative auxiliary which in turn raises to the Agr position. However, the first movement is peculiar in that a functional head, in this case, Mood, moves into another head with a *lexical* element, i.e. the negative auxiliary, and, in addition, is attached to the *right* of the target. To permit such a bizarre movement would deprive the proponent for the structure (1) of the otherwise straightforward explanation for the morpheme orders of the Finnish verb paradigm in the other moods and tenses. That is, one cannot reject the following derivation without an *ad hoc* stipulation, which would prevent tenses and moods other than imperative from being raised to the negative head, under the structure (1):

- (14) a. *e-isi-n puhu
 Neg-CND-1SG speak
 b. Neg-T/M-Agr V

Mitchell herself acknowledges in her discussion of positing AgrP internal to

TP that "to allow the morphological expressions of these categories in an order opposite to the one in which they are attached to the verb" arouses the problem which "would not be insurmountable."(p.374)

There seem to be some plausible ways out, if we are allowed to modify the structure in (1). One is to hypothesize that the hierarchical orders of functional categories may be parametrized even in one language (cf. Ouhalla 1991). In the case under discussion, what one needs is the assumption that the structure in (1) is available for all the tenses and moods but the imperative where the hierarchical order of Neg and Mood is reversed. Then one could correctly rule out the derivation in (14b) while retaining the one in (13b) only for the imperative. Another is to assume that the imperative paradigm involves a different category which does not fall in with the other moods. This is not so inappropriate in Finnish especially when we see that the agreement suffixes for the imperative paradigm are distinct from those for the other tenses and moods, and that the negative stem in the imperative is *äl(ä)-* rather than *e(i)-*, the latter being consistently used in the other tenses and moods.

I would like to take a brief look at one possible analysis in the second line. Laka(1991) proposes a functional projection called Σ P between CP and IP, whose main function is to accommodate the polarity. This category reminds us of Mitchell's AstP, but the former seems more general than the latter, as the origin of its name, "speech act", implies. Attractive is Laka's suggestion that the imperative may be a value of the Σ head, not the Mood head, at least in Spanish.¹¹

(15) [Σ P Ven [IP aquí]] "Come here!"
 come/IMP here

Let us transfer this insight to Finnish. Suppose that the imperative has a different structure from the other two moods, i.e. the conditional and the

potential. Then the imperative clause may have the following structure for the relevant parts:

(16) .. [_{XP} IMP .. [_{T/MP} imp .. [_{VP} V

It is not yet obvious what the phrase XP is; it may be a phrase external to "IP" such as Laka's ΣP or CP, or a new "Infl-internal" functional category. The head *IMP* will be invoked as a host site for the main verb which has moved to this position in positive, or for the negative auxiliary which may be inserted here from the beginning or may arrive here out of the position reserved for the negative auxiliary.¹² The *imp* in T/MP may be connected with the morpheme *-kO* which is attached to the main verb in the negative imperative except the one in second singular (cf. note 6).

(17) a. *puhu-Ø-kaa* [_{XP}V-imp-IMP] "Speak!"
 b. *älkää puhu-ko* [_{XP}(Neg-)IMP] [_{T/MP}V-imp] "Don't speak!"

The imperative forms are not so parallel among all the persons as the other forms, and in addition, they appear to be quite fusional. Furthermore, the syntax of the imperative shows some peculiarities in contrast to other tenses and moods, and there are also discrepancies between the third person and the other two persons (the former may be called "optative", reserving "imperative" only for the latter). Unfortunately, I cannot discuss the Finnish imperative here, but it surely deserves a fuller description.

In conclusion, although the structure in (1) proposed by Mitchell(1991) may have something to tell about the Finnish clause structure, so many aspects of the relevant facts are left untouched, which should have been taken into consideration, that one cannot say that her argument is satisfactory. One significant reason why Mitchell omitted them seems to lie in her presumption of the concrete interpretation of functional heads, which, with the agglutinative nature of Finnish, might have encouraged her to come up with a structure almost only based on morphological and morphosyntactical

fragments. Because the decomposition of Infl makes a new *syntactic* structure, it should be supported by the materials at the same level at least. As Janda and Kathman(1992:141) convincingly argue that "the various functional heads in syntax (like T[ense] and Agr[reement]) are taken to be, not actual morphemes with morphophonological substance, but instead feature-bundles," this kind of concrete interpretation of functional categories as affixes to be attached later in syntax is not universally valid. This is easily understood by observing irregular verbs in English or conjugations in a so-called "inflectional language". As is well-known, even a so-called "agglutinative language" fails to show ubiquitous agglutination, since fusional morphology is also attested, with the result that although one may succeed in many cases, it is not easy to consistently keep to the concrete interpretation in Finnish, an often cited agglutinative language. On the other hand, since it is also the case that morphology and syntax are sometimes structured in a parallel way, and sometimes not, one has to account for this significant linguistic fact. A version of checking theory with a principle like Baker(1985)'s Mirror Principle may serve for that purpose, or a radical reorganization of grammar such as presented in Halle and Marantz(1993), where the Morphological Structure is postulated as the interface between S-Structure and Phonological Form, may solve this problem.

2. Case Forms of Object in Finnish and Case License

Chomsky(1991) has modified the structure proposed in Pollock(1989) by positing AgrP external to Tense (or Finite, in Chomsky's term). The result is not the hierarchical reversal of the two categories, since he still maintains the original Agr internal to Tense, building the following clausal structure with two Agr phrases, one at the topmost and the other at the bottom in "Infl".

(18) [_{AgrP} Agr [_{NegP} Neg [_{TP} T [_{AgrP} Agr [_{VP} V]]]]]

According to him, each Agr is a different selection of the same category, a collection of ϕ -features. As mnemonics of their associates, i.e. the subject and the object, they are usually labelled as Agr-S and Agr-O, respectively. The lower Agr-O is assumed to be present even in languages having no (overt) object-agreement marker. In what is called the "checking theory", some functional categories have to be checked and deleted by matching their features with those born by a pertinent element, and Agr is such a category. It has been classically assumed that the nominative is assigned by Infl to the subject NP in its specifier, whereas the accusative is assigned by a lexical verb to its complement NP. The advent of an articulated Infl structure with two Agr heads as in (18) has made available the generalization of Case marking; both nominative and accusative are considered to be a reflection of Spec-head relation in AgrP. Furthermore, Case is not literally assigned; rather fully inflected Ns are introduced into a tree and their ϕ -features including Case are checked by Agr. The checking of Case together with other features such as person and gender is performed via Spec-head relation after the NP has moved into the specifier position. The two Agrs may differ in the time of checking because each NP may move at different times in a derivation due to the interplay of several factors, and yet they must ultimately be deleted after having completed all their jobs, because they are not regarded as legitimate elements at the level of LF in the framework(s) of Chomsky(1991, 1992). Interestingly, Agr alone cannot serve as an active element in the sense that the actual execution of Agr to check the features of NP depends on other elements. This is significantly true of Case, since as is well-known, in English, for example, only the tensed Infl permits a nominative-marked overt NP, and only a transitive verb may take an accusative complement. It is therefore the conspiracy of Agr and its helper that ultimately grants a license for Case. In this section, paying attention to the assumption that Case is

fully checked via Spec-head relation locally in AgrP, I will present relevant aspects of Cases that objects may take in Finnish, which seem to undermine the Case theory simply based on Agr.

Being basically an accusative language, Finnish normally marks the subject with a nominative, which has no overt realization in the singular, in both intransitive and transitive sentences, and the object with an accusative, which has *-n* in singular.¹³

- (19) a. *Poika juoksi pihalla.*
 boy/NOM ran yard-ADE
 "The boy was running in the yard."
 b. *Poika näki tytön.*
 boy/NOM saw girl-ACC
 "The boy saw the girl."

What interests us here is that an object may have other Cases than an *accusative*; it may be marked with a *nominative* and a *partitive*.¹⁴ Since it is useful, I think, to have a common term for these three Cases, I call them *objective Cases* when it is not necessary to specify which Case is being spoken of. The nominative Case is required for the object in the following sentence types, among others: (i) an imperative except the third person and (ii) an indefinite ("passive"),¹⁵ both in positive. Each of them is illustrated below:

- (20) a. *Vie lapsi kouluun!*
 take/IMP/2SG child/NOM school-ILL
 "Take the child to school!"
 b. *Lapsi viedään kouluun joka päivä.*
 child/NOM take-IND school-ILL every day
 "The child is taken to school every day."

That the nominative NP *lapsi* is indeed the object can be seen from the fact that if it is substituted for a personal pronoun, it is specified as accusative. (All the personal pronouns have the unique accusative ending *-t*.)

- (21) a. Vie *hänet* kouluun!¹⁶
 take/IMP/2SG he-ACC school-ILL
- b. *Hänet* viedään kouluun joka päivä.
 he-ACC take-IND school-ILL every day

The nominative object is a prominent topic in Finnish grammar, and one of the questions one must answer is when the nominative is used.¹⁷ Informally, the object, unless it is a personal pronoun, is not accusatively marked when a clause has no recoverable syntactic subject in the nominative Case. Finnish is a pro-drop language¹⁸: the subject does not have to be overtly expressed when it is understood as in (22a); and an overt expletive like the English *it* is not usually used, as in (22b).

- (22) a. Luin *kirjan/*kirja* loppuun.
 read-PAST-1SG book-ACC/(NOM) end-ILL
- "I read the book to the end."
- b. Oli kaunis syyskuun päivä.
 was beautiful September-GEN day
- "It was a beautiful day in September."

As is shown in the example (22a), when the subject is not overtly expressed but syntactically present, i.e. when it is a null pronoun *pro*, the object may not be put in nominative.

The major contexts in which objects are marked with a partitive, another objective Case, are classified into two.¹⁹ One is involved with negativity, and the other with imperfectiveness.²⁰ They are exemplified in (23a) and (23b), respectively:

- (23) a. Pekka ei lukenut *kirjaa*.
 Pekka Neg/3SG read-APP book-PAR
- "Pekka didn't read a book."
- b. Pekka luki *kirjaa*.
 read-PAST/3SG book-PAR
- "Pekka was reading a book."

The partitive marking overrides the marking of the other objective Cases, which is to say that whenever a condition is met, the partitive marking has

to be practiced first of all, including personal pronouns.²¹ For example:

(24) a. *Lasta ei viedä kouluun.*
child-PAR Neg take-IND school-ILL

"The child is not taken to school."

b. *Lue kirjaa tunti!*
read/IMP/2SG book-PAR hour/NOM

"Read a book for an hour!"

c. *Pekka ei vie häntä kouluun.*
Neg take he-PAR school-ILL

"Pekka doesn't take him to school."

Having presented relevant aspects of Case alternations in Finnish, I will see how the Case theory in currency could cope with them. As mentioned already, Agr cannot accomplish its function by itself, and it demands an element which brings the capacity of Agr into effect: for example, Tense with a certain value is necessary for Agr-s and a transitive verb for Agr-O. As a result of head-to-head movement, each Agr obtains its respective cooperator, so that the checking domain could be local inside the projection of Agr as defined in Chomsky(1992). However, as far as objective Cases in Finnish are concerned, one cannot predict what Case form an object should have in such a local domain. In particular, to ensure an appropriate Case form for the object, it is insufficient for Agr-O to know the transitivity property of verb, and the state of affairs outside AgrP plays a crucial role. One might suggest that the definition of domain should be reformulated so that Agr-O could be sensitive to the external syntactic information. Yet there are some refinements in Case theory which at first sight appear to deal with Finnish data while retaining the locality of the checking domain. Let us consider some of them.

Watanabe(1993), while accepting the Agr-based Case checking, advances the "three-layered Case theory", according to which, when the Case feature of Agr is checked with the NP, a new feature, say, [F] is created on Agr. Since Agr is not legitimate at LF, it must be absent there. But Agr with the feature [F] is not allowed to be deleted, so another functional head as a

checker of the feature is necessary, to which Agr raises to have it checked off. Given his three-layered Case theory, Watanabe can account for interdependencies between functional heads as well. As informally defined before, in Finnish, an object is marked with the nominative in the absence of a syntactic nominative subject. Under the theory, where the subject and the object NPs are licensed by different selections of Agr, the correlation between the two NPs can be recapitulated as the interdependence between Agr-S and Agr-O. These two Agrs are too remote to directly refer to each other because the functional head Tense exists between them (in an affirmative sentence), but the three-layered theory can suppose that their relation is mediated, rather than interrupted, by Tense, which pertains to Agr-O with respect to the feature [F] created by Case checking, and to Agr-S with respect to the dependence of Agr-S on Tense when checking the features of the subject NP. This mediating role of Tense enables Agr-O to "communicate" with Agr-S even after the former has been deleted with the checking-off of the feature [F]. Thus the objective Case selection could be determined in some way locally in Agr-OP, provided that the checking of accusative and nominative would create different features, the checking-off of which is sensitive to the checking performance of Agr-S with the mediation of Tense. That is, one could assume that a different feature [N] created during the checking of nominative by Agr-O can be deleted by Tense, only if Tense does not help Agr-S to check the nominative Case of the subject. In contrast, the occurrence of partitive seems relatively complex. Suppose that another different feature, say [P], is created during the process of checking partitive. Then this necessitates another higher functional head as an eraser of the feature, and Tense is indeed apparent in the structure (18). In Finnish, since the lexical negative auxiliary will be introduced into the head of NegP, just external to TP, Tense attached by a verb must stay at its home position. So one might conclude

that a partitive object appears when Tense, having checked off the feature [P], fails to reach the position of Agr-S. But clearly this is not feasible, because a partitive object is also used in an affirmative sentence, when the sentence denotes the imperfective aspect. In this case, a verb, picking up Agr-O and Tense, ends up in Agr-S, so that it is not possible to distinguish the ways the three objective Cases would be licensed.

It is worth noting here, however, that the three Cases do not contrast with one another in the same way. Nominative and accusative have no different functional load from each other in that they are in complementary distribution. To the contrary, partitive is not sensitive to which Case would be used if the context were not of partitive. In other words, the partitive, in the first place, contrasts with the "non-partitives" including the accusative and the nominative, and takes precedence over the other two in marking an object. Furthermore, for the nominative marking of object, syntactical information is decisive, whereas for the partitive marking, semantic information is also of importance.²² It is true that when a sentence is negated with the negative auxiliary, it is apparently this auxiliary that triggers partitive syntactically. However, when the partitive is triggered by the imperfective aspect of a sentence, one must ask whether there is a syntactic category which is related to the aspect and responsible for the partitive Case. The structure in (18) lacks such a category, and so does the structure in (1) proposed by Mitchell(1991) (recall that (im)perfective should not be confused with (non)perfect; the latter is expressed with a perfect "auxiliary"). Is there any common property which unifies negativity and imperfectiveness?

Murasugi(1992) proposes a clausal system with the following structure as part of it:

(25) .. [TP T [TP Tr [VP V..

Her structure has no AgrP, since she considers Case to be simply a reflection

of Spec-head relation between a verb and its argument, mediated by two functional categories, T(ense) and Tr(ansitivity). Remarkable is the latter mediator Tr, which has the feature [$\pm$ Transitive] with only the plus value being associated with a (marked) Case. This functional category may be the key for uniting partitives in various contexts. In their paper on the transitivity, Hopper and Thompson(1980) cite Finnish as one example to illustrate that some languages have one or more devices to show a degree of transitivity of sentence: the partitive is such a device to indicate low transitivity. More particularly, a partitive object is used when a sentence is negated or imperfective; both cases have a lower value of transitivity with respect to affirmation and perfectivity, respectively. Thus if one was allowed to revise the category Tr to be multi-valued rather than two-valued, one could properly differentiate the partitive and the non-partitives in the process of Case checking in TrP. It might therefore turn out that combining the theory in Watanabe(1993) with a structure such as in Murasugi(1992) enables us to account for the distribution of the Finnish objective Cases.

Unfortunately, however, things are not quite this simple. There is another context to be considered for the objective Case selection, which I have ignored so far because of its relative complexity.²³ When a clause is embedded, the information only about itself is not enough to determine the Case of its object. As for the nominative marking of an object, it is important, in many cases, to know what the matrix clause is like when the embedded clause has its predicate in a non-finite form. The following construction is usually cited as a third type with a nominative object:

- (26) *Minun täytyy viedä lapsi kouluun.*
I-GEN must-3SG take-INF child/NOM school-ILL

"I must take the child to school."

The "impersonal" verb *täyty-* signifies the obligation, with the agent NP ("I" in the example (26)) put in genitive. In this construction, the object "child"

of the embedded infinite clause is marked with a nominative. It must be emphasized that it is not only because the embedded clause has no overt subject that the object in question has the nominative form. Consider the following example.

- (27) *Minä haluaisin viedä lapsen kouluun.*
I/NOM want-CND-1SG take-INF child-ACC school-ILL

"I would like to take the child to school."

The example in (27) illustrates that even if the embedded infinite clause is subjectless as in (26), its object must be in accusative when the matrix clause is not "impersonal". Furthermore, the "impersonal" construction such as (26) is not the only context for a nominative object in a non-finite clause: when the matrix clause, which is one of the sentence types that would have a nominative NP object, takes an embedded clause,²⁴ the object of the latter is specified as nominative (cf. Timberlake 1975).

- (28) a. *Mene kaupunkiin ostamaan uusi hattu!*²⁵
go/IMP/2SG town-ILL buy-INF new/NOM hat/NOM

"Go to town to buy a new hat!"

cf. a' *Menen kaupunkiin ostamaan uuden hatun.*
go-1SG town-ILL buy-INF new-ACC hat-ACC

"I'll go to town to buy a new hat."

- b. *Työ käskettiin tehdä.*²⁶
job/NOM order-IND-PAST do-INF

"We were ordered to do the job."

The condition of marking an object with a nominative or accusative is "recursive". The non-finite clausal complement of another non-finite clause which in turn has a nominative-inducing type as its matrix clause marks its object with a nominative.

- (29) *Minun täytyy mennä kaupunkiin ostamaan uusi hattu.*
I-GEN must-3SG go-INF town-ILL buy-INF new/NOM hat/NOM

"I must go to town to buy a new hat."

But this recursion may not go beyond a finite clause as shown in (30):

- (30) *Sano, että haluat mennä ostamaan hatun/*hattu!*
say/IMP/2SG that want-2SG go-INF buy-INF hat-ACC/(NOM)

"Say that you want to go to buy a hat!"

Here between the deepest object and the topmost imperative verb intervenes a tensed verb *haluat*, which blocks a nominative object. A similar recursion is observed with a partitive object,

- (31) a. *Älä mene ostamaan hattua/*hattu!*
Neg/IMP/2SG go buy-INF hat-PAR/(NOM)

"Don't go to buy a hat!"

- b. *Älä sano, että haluat mennä ostamaan*
Neg/IMP/2SG say that want-2SG go-INF buy-INF
*hatun/*hattua!*
hat-ACC/-PAR

"Don't say that you want to go to buy a hat!"

but the boundary of a finite clause is not always strong enough to prevent a partitive from being induced:

- (32) *En luule, että poika rikkoi ikkunan/ikkunaa.*
Neg-1SG think that boy broke window-ACC/-PAR

"I don't think that the boy broke the window."

The example in (32) may suggest that the marking of an object with a partitive is not as syntactically conditioned as with a nominative. Another similar difference between partitive and nominative with respect to the boundary is found when a non-finite clause has a genitive subject, which bans a nominative object from showing up, but which is relatively transparent for a partitive object.

- (33) a. *Luulin hänen tuntevan vieraan/*vieras.*
think-PAST-1SG he-GEN know-APP guest-ACC/(NOM)

"I thought him to know the guest."

- b. *Hänen luultiin tuntevan vieraan/*vieras.*
he-GEN think-IND-PAST know-APP guest-ACC/(NOM)

"He was thought to know the guest."

- c. *En luullut hänen tuntevan vierasta/*vieraan.*
Neg-1SG think-APP he-GEN know-APP guest-PAR/-ACC

"I didn't think him to know the guest."

In a local context, a partitive which is required by the negative auxiliary, for example, appears to be "grammaticalized", but the original motivation of partitive marking is not purely syntactical and in non-affirmative contexts, partitive is akin to negative polarity items (see also note 19). So it is not surprising to find cases where a distant element induces a partitive object as in (32) and (33c), if the matrix predicate has a relevant property with respect to factivity or assertivity, for example. Consequently, the materials presented thus far suggest that a larger domain is involved to determine the objective Cases in Finnish. The system integrating the three-layered theory and the Transitive phrase seems to be fundamentally clause-bound, so that it would at best constitute only part of the checking procedure(s), to be made up for by some device which completes the Case license theory.

Taraldsen(1985) introduces a notion called "V-chain" to deal with a long-distance correlation between the marking of nominative on an object and the absence of a syntactic subject (in Finnish).²⁷ Interestingly, on the other hand, Van Steenbergen(1991) proposes a similar notion called "I-chain" to account for the long-distance binding nature of anaphors (in Finnish).²⁸ One may wonder whether this is just a coincidence. (Reference to Taraldsen 1985 is mentioned nowhere in Van Steenbergen 1991.) If the similarity between these two notions is no coincidence, and if it reveals some underlying common motivation in the grammar, then it is interesting to inquire what it would be like. I would like to look a little closer into this subject for the rest of this section.

In generative grammar, the binding theory plays an important role not only for the sake of overt NPs such as anaphors, but also for covert elements. Among differences between these two kinds of elements, the E[empty] C[ategory] P[inciple], which only applies to traces, has provoked a great deal of discussion, during which a disjunctive and a conjunctive formulations of

the principle are presented. It is often argued that disjunctiveness in a principle is not conceptually preferred, entailing that a conjunctive ECP will be the better one. What are conjoined in the ECP are referred to as the Formal Licensing and the Identification in Rizzi(1990), who eventually subsumes the latter under the Binding Theory, reducing the ECP simply to the Formal Licensing. Let us attempt to apply the insight of the conjunctive ECP to the Case license. It has been recognized that an overt NP must have some Case to be allowed to appear on the surface. Here the concept *Case* refers to the most abstractly interpreted one, and the central issue is whether Case is assigned/licensed or not, thus paying no serious attention to its actual form, eg. nominative or accusative. I suggest that this is the *Formal Licensing* aspect of Case checking. This is not the end of story, though. Supposedly, each NP should also be licensed with respect to its actual form, namely, a concrete value of Case; I suppose that this is the *Identification* aspect of Case checking. Extensively-studied languages such as English or French, where each Agr consistently checks a specific Case (though this is not so apparent because of the morphological poverty in nominal declensions), would lead one to the conclusion that what I call the Formal Licensing aspect is the only means whereby Cases are licensed. In contrast, Finnish suggests that this Formal Licensing condition is not thorough enough to embrace the whole range of objective Case alternations in this language, calling for some kind of Identification condition. It might be the case that the Formal Licensing is the principle for *abstract* Cases and the Identification for *morphological* Cases, and languages poor in Case morphology or those with one-to-one correspondences between grammatical functions and (morphological) Cases might make use of only the Formal Licensing, which might also include a "freezed" local Identification in itself. Whatever the Case Theory would be like, however, it should be able to deal with the distribution of the two kinds of Cases and

their correlation, as one of the subtheories in Universal Grammar. Seen from the possibility of "long-distance correlation", the Identification mechanism would possibly work on a par with the binding conditions, and might include a cyclic manipulation such as V-chain or I-chain in its definition. It seems that not every Case is formerly licensed in the same way, because some adjunct NPs with an oblique Case such as those expressing a temporal or locational relation are considered to be present of their own accord, but once a non-object NP is allowed to emerge with an objective Case, it could be expected to undergo similar Case alternations to those of an object NP. Consider the following examples:

- (34) a. Luin kirjaa *tunnin*.
 read-PAST-1SG book-PAR hour-ACC
 "I read a book for an hour."
- b. Lue kirjaa *tunti!*
 read/IMP/2SG book-PAR hour/NOM
 "Read a book for an hour!"
- c. En lukenut kirjaa *tuntia*.
 Neg-1SG read-APP book-PAR hour-PAR
 "I didn't read a book for an hour."

In these examples, the italicized NP functions as an adverbial element meaning "for an hour", which is linked with the imperfective aspect, thus marking the object "book" with a partitive. Although this NP is clearly not counted as an object, it surely exhibits a full range of Cases associated with objects. The technical implementation will be too involved a subject to be explored in detail here, but regardless of the issue whether adjunct NPs such as in (34) have to be formerly licensed (and if so, how), it would be natural to assume that their Case forms are subject to the same Identification condition as those of objects. Concerning the formulation of this condition, I can only tentatively say that binding theoretic or scope concepts would be useful: accusative is "bound" by an element involved with the nominative in a certain domain, nominative is "free" in a certain domain; partitive is licensed in a scope of

negativity or imperfectiveness, and so on.²⁹

In sum, although the Formal Licensing by the Spec-head relation based on Agr, or something similar, may play a role in the Case license, it seems too restricted to cover the Case alternations of objects and adverbial NPs in Finnish. Therefore, I would like to suggest that an additional principle like the Case Identification should be introduced, which could capture (long-distance) correlations between Cases, or between (functional) categories such as Agr and Tr which are assumed to be involved in the local formal checking of Case, though this warrants further investigation.

Notes

1. Abbreviations: 1=first person, 2=second person, 3=third person, ACC=accusative, ADE=adessive, ALL=allative, APP=active past participle, CND=conditional, ESS=essive, GEN=genitive, GER=gerundive, ILL=illative, IMP=imperative, IND=indefinite (passive), INE=inessive, INF=infinitive, Neg=negative, NOM=nominative, PAR=partitive, PASS=passive, PL= plural, POS= positive, PPP=passive past participle, PRF=perfect, PRSP=present participle, Px=possessive suffix, SG=singular, SUBJ=subjunctive.

2. The last element at issue has assimilatory allomorphs depending on the preceding vowel.

3. It should be pointed out in this context that the possessive suffix of the third person also has the form *-Vn* as one variation.

- (i) a. *työssä-nsä* = *työssä-än* "in his/her/their work"
work-INE-Px3
b. *pojalle-nsa* = *pojalle-en* "to his/her/their boy"
boy-ALL-Px3

4. I also prefer the term "indefinite", but I continue to use "passive" in this section.

5. This past participle has allomorphs, for the first consonant due to assimilatory processes and for the vowel due to the vowel harmony: e.g. *syönyt* "eat", *tul-/ut* "come", *pes-syt* "wash". When the subject is plural, it takes the form *-neet* with the same consonant assimilation as in the singular.

6. As Mitchell(1991) also argues, if it is the case that the complementary distribution of morphemes implies that they belong to one and the same category, T/M should be generalized to include participles (and some

infinitives), because tense/mood and participle morphemes do not appear at the same time. The resulting category may be called "Finite" with various values such as [+Finite, +Past] and [-Finite, +Past Participle]. Moreover, in present tense forms in negative, the form of main verb occurring with the negative auxiliary is not a simple stem; it consists of a stem form followed by the (morpho)phoneme known as *aspiraatio* (which has no correspondence in the writing system) in the Finnish phonology, realized as a glottal stop before a vowel or as gemination of the following consonant, in careful speech. I am not sure whether this form is an instance of Finite, but it should be pointed out that the *aspiraatio* is generally believed to be a relic of the earlier present tense morpheme *k; it may be also interesting to note that it is the same form as the imperative in the second person singular.

7. The vowels written in an upper case represent morphophonemes for the vowel harmony. Thus /U/ stands for two phonemes, /u/ and /y/.

8. Lazar(1975) says that the passive present participle more rarely serves as the base for the abstract noun formation than the active present participle.

9. Shore(1988:173) regards the passive form (she uses the term "indefinite") as a derivational form of the verb with an incorporated Actor, for example.

10. See also Matsumura(1982), in which a relevant argument is given based on Finnish verbal compounds including participle forms such as:

- (i) a. yhteenuuluuvuus "solidarity"
 [[yhte-en kuulu-va] -uus]
 one-ILL belong-PRSP-ness
- b. olemassaolaisuus "former existence"
 [[ole-ma-ssa ol-lee]-isuus]
 be-GER-INE be-APP -ness

11. One reason why Laka assumes that the imperative can be located in Σ is that the Spanish imperative is not compatible with a negative. In this language, then, the negative imperative is expressed with a negative adverb in the head Σ followed by a subjunctive verb, as in (ib).

- (i) a. *No ven aquí.
 not come/IMP here
- b. No vengas aquí. "Don't come here!"
 not come-SUBJ here

12. There may be a special functional head only for the negative imperative (auxiliary), which can be called "Prohibitive". See, for example, Zhang(1991), who proposes an *Imperative Neg Phrase*, which is occupied by *don't* in English.

13. The suffix -t is used in the plural, for both the subject and the object.

14. There are also verbs which assign a lexical or inherent Case to its complement. I will not be concerned with objects in a lexical Case.

15. As I mentioned before, the Finnish passive is not the same category as the one in English; it suppresses the original subject and retains the object without promoting it to the subject, so that the nominatively-marked element is not the subject, but still the object. To remind the reader of this point, I will use the term "indefinite"(IND) in place of "passive" in this section. Then in the example (20b), the nominative object comes at the beginning of the sentence, not because it has become the subject, but because the object is selected as the topic to avoid a disfavored sentence beginning with a verb.

16. There is no gender distinction in Finnish, and only one pronoun *hän* is prepared for both "he" and "she". I translate this pronoun as "he".

17. It is also argued how an object gets the nominative Case and whether the Case at issue is the same one that appears with subjects. There is even an opinion that "nominative" NPs are Caseless. For discussions on nominative objects, see Timberlake(1975), Milsark(1985), Taraldsen(1985), and Marcantonio(1988).

18. To be exact, it is a "semi"-pro-drop language, as the third person argumental pronoun is not easy to drop.

- (i) *Puhuu suomea. "He speaks Finnish."
speaks-3SG Finnish-PAR

But the verb in the third person singular without the argumental subject is tolerated if it is interpretable as a generic sentence.

- (ii) Sunnuntaina voi nukkua pitkään.
Sunday-ESS can/3SG sleep long
"On Sundays one can sleep in."

19. We have a third context for partitive objects. In this context, the partitive is triggered "NP-internally" rather than "NP-externally" as in the text. The phrase "NP-internal" means that the partitive Case of object is not influenced by an outer element, but it conveys a certain aspect of meaning in the object itself. The object marks itself with this Case and denotes an unspecified amount of element(s), which is often called a "partial object".

- (i) a. Pekka joi maitoa.
drank/3SG milk-PAR
"Pekka drank (some) milk."
b. Pekka omistaa taloja.
owns house-PL-PAR
"Pekka owns (some) houses."

This type of partitive is surely connected with those treated in the text: all of them are involved in transitivity in the sense of Hopper and Thompson(1980), and historically it is probably the semantics of partitive illustrated in (i) that has evolved other usages such as negativity and imperfectiveness (cf. Larjavaara 1991). I will leave the partitive of this type out of discussion, because there are some differences between the "NP-internally" triggered partitive and the "NP-externally" triggered ones, which suggest a separate treatment for them. (Incidentally, it is the "NP-internal"

type of partitive that inspires Belletti 1988 with the idea that unaccusative verbs assign a partitive to their complement.) The partitive Case is also a matter of considerable debate; for further details of partitive over a wide range, see Sadowski(1983), Schot-Saikkku(1986), for example.

20. Instead of "imperfective", the special term "irresultative" is usually employed in the Finnish grammar. This aspectual is concerned with the boundedness of event. See Heinämäki(1983).

21. Therefore, as far as objects are concerned, the accusative may be the weakest Case in Finnish, which we could call a default or elsewhere Case. Originally, the partitive was not a Case for direct objects, but it has extended its territory as a device to indicate a degree of transitivity, leading to contrast with the non-partitives. In this regard, the partitive has been a marked category for objects. In spite of its historical markedness, however, it is shown that the partitive is the most unmarked Case for objects from the point of (textual) frequency, because of its wide range of usages today (cf. Hakulinen and Karlsson 1979:182).

22. Of course, the non-partitives will obtain the opposite semantic information when contrasted with the partitive.

23. There seems to be some variation in grammatical judgement of the examples in this paragraph. Thus some forms with "*" may not be dismissed as totally unacceptable. Cf. Ikola(1989).

24. It doesn't matter whether the matrix verb is transitive or not.

25. Finnish has more than one infinitive form. The form in this example is usually called the third infinitive in an illative Case, functioning as a sort of purpose clause.

26. The leftmost NP *työ*, which is the object of the embedded infinitive *tehdä*, is chosen as the topic of the sentence (also see note 15). A literal translation of the example in (28b) is "It was ordered to do the job."

27. A sequence $(V_1, \dots, V_n)$ is a V-chain if and only if each $V_i, i > 1$, is the main verb of the complement of V_{i-1} . (Taraldsen 1985:155)

28. $C = (I_0, \dots, I_n)$ is an I-chain iff I_i strictly c-commands I_{i+1} ($0 \leq i < n$) and I_i ($0 < i \leq n$) is not [+ (indicative) Tense]. (Van Steenbergen 1991:241)

29. A functional motivation may underlie the distribution of Case cooccurrences at least for the contrast between nominative and accusative. It is generally important to distinguish the subject and the object to get rid of any ambiguity if both are present in a clause, whereas if only one of them is visible, it might be economical to leave it unmarked regardless of its grammatical function (cf. Comrie 1975). On the other hand, semantic features are significant for partitive, but we also find some syntactical restrictions.

For example, when we take subject NPs into consideration, they reject the partitive Case, particularly, in a (finite) transitive sentence. This restriction might stem from the internal structure of a partitive NP as suggested in Kayne(1981), or it might be related to the fact that anaphors are not allowed in a similar place.

References

- Baker, M. (1985) "Mirror Principle and morphosyntactic explanation," *LI* 16, 373-416.
- Belletti, A. (1988) "Unaccusatives as Case assigners," *LI* 19, 1-34.
- Chomsky, N. (1986) *Barriers*. Cambridge, Mass.:The MIT Press.
- Chomsky, N. (1991) "Some notes on economy of derivation and representation," in R. Freidin (ed.) *Principles and Parameters of Comparative Syntax*, 417-454. Cambridge, Mass.:MIT Press.
- Chomsky, N. (1992) "A Minimalist Program for linguistic theory," *MIT Occasional Papers in Linguistics* 1.
- Chomsky, N. and H. Lasnik (1991) "Principles and Parameters Theory," ms.
- Comrie, B. (1975) "The antiergative: Finland's answer to Basque," *CLS* 11, 112-121.
- Hakulinen, A. and F. Karlsson (1979) *Nykysuomen Lauseoppi*. Jyväskylä:SKS.
- Hakulinen, L. (1961) *The Structure and Development of the Finnish Language*. Bloomington:Indiana University.
- Halle, M. and A. Marantz (1993) "Distributed Morphology and the pieces of inflection," in K. Hale and S. J. Keyser (eds.) *The View from Building 20*, 111-176. Cambridge, Mass.:The MIT Press.
- Hopper, P. J. and S. A. Thompson (1980) "Transitivity in grammar and discourse," *Language* 56, 251-299.
- Heinämäki, O. (1983) "Aspect in Finnish," in C. de Groot and H. Tammola (eds.) *Aspect Bound*, 154-177. Dordrecht:Foris Publications.
- Ikola, O. (1989) "Mistä infinitiivin objektin horjuvuus johtuu? [with the English summary: Why the variation in the object of an infinitive?]," *Virittäjä*, 452-456.
- Janda, R. and D. Kathman (1992) "Shielding morphology from Exploded INFL," *CLS* 28/2, 141-157.
- Kayne, R. S. (1981) "ECP extensions," *LI* 12, 93-133.
- Laka, I. (1990) *Negation in Syntax: On the Nature of Functional Categories and Projections*. Ph.D. dissertation, MIT.

- Larjavaara, M. (1991) "Aspektuaalisen objektin synty [with the English summary: The origin of the aspectual object]," *Virittäjä* 95, 372-408.
- Lazar, O. (1975) *The Formation of Abstract Nouns in the Uralic Languages*. Upsala:Almqvist & Wiksell.
- Marcantonio, A. (1988) "On the case of the object in Finnish: a typological, diachronic and comparative analysis," *FUF* 48, 129-170.
- Matsumura, K. (1982) "Finnish verbal compounds," *Working papers in Linguistics '82*, 78-89. Tokyo:Tokyo University.
- Milsark, G. (1985) "Case Theory and the grammar of Finnish," *NELS* 15, 319-331.
- Mitchell, E. (1991) "Evidence from Finnish for Pollock's theory of IP," *LI* 22, 373-379.
- Murasugi, K. (1992) *Crossing and Nested Paths: NP Movement in Accusative and Ergative Languages*. Ph.D. dissertation, MIT.
- Ouhalla, J. (1991) *Functional Categories and Parametric Variation*. London: Routledge.
- Pollock, J.-Y. (1989) "Verb movement, Universal Grammar, and the structure of IP," *LI* 20, 365-424.
- Rizzi, L. (1990) *Relativized Minimality*. Cambridge, Mass.:The MIT Press.
- Sadowski, A. M. (1983) "Der finnische Partitiv," *FUM* 7, 71-94.
- Schot-Saikkku, P. (1986) "Der Partitiv als Objectkasus im Finnischen," *FUF* 47, 183-205.
- Shore, S. (1988) "On the so-called Finnish passive," *Word* 39, 151-176.
- Sulkala, H. and M. Karjalainen (1992) *Finnish (Descriptive Grammars)*. London: Routledge.
- Taraldsen, T. (1985) "On the distribution of nominative objects in Finnish," in P. Muysken and H. van Riemsdijk (eds.) *Features and Projections*, 139-161. Dordrecht:Foris Publications.
- Timberlake, A. (1975) "The nominative object in Finnish," *Lingua* 35, 201-230.
- Van Steenberghe, M. (1991) "Long-distance binding in Finnish," in J. Koster and E. Reuland (eds.) *Long-Distance Anaphora*, 231-244. Cambridge: Cambridge University Press.
- Watanabe, A. (1993) *Agr-based Case Theory and its Interaction with the A-bar System*. Ph.D. dissertation, MIT.
- Zhang, S. (1991) "Negation in imperatives and interrogatives: arguments against inversion," *CLS* 27/2, 359-373.

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