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Partitives

Studies on the Syntax and Semantics
of Partitive and Related Constructions

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Is partitive case inherent or structural?¹

Anne Vainikka and Joan Maling

1. Introduction

The term *partitive* has been used in three different but potentially related ways in the literature:

- (i) as the traditional name of a morphological case;
- (ii) as the name of an Abstract Case in GB-theory associated with indefiniteness (cf. Belletti (1988));
- (iii) as a semantic notion associated with a partial interpretation, e.g. *many of the students* (cf. De Hoop (1992) *inter alia*).

In this paper we will concentrate on the status of Belletti's Abstract Partitive and its relationship to morphological partitive case, rather than on the semantic partitive.²

Belletti (1988) provides an analysis of the Definiteness Effect (Milsark 1974) which proposes a connection between indefiniteness and Partitive Case. The morphological justification for this proposal comes from Finnish, which has an overt partitive case morphologically distinct from accusative. The essential feature of Belletti's analysis is that Partitive is analyzed as an inherent Case, while Accusative is (assumed to be) a structural Case.³

1. Thanks to Helen de Hoop, Jacob Hoeksema, Howard Lasnik, Diane Nelson, Urpo Nikanne and Halldór A. Sigurðsson for comments on an earlier version of this paper.
2. In fact, as pointed out by De Hoop (1992), in Finnish the semantic partitive patterns with strong quantifiers, while the morphological partitive patterns with weak quantifiers.
3. As is customary, we use *case* to refer to morphological case, and *Case* to refer to the Abstract Case of GB-theory. Similarly, we will use *Partitive* to refer to Belletti's notion of abstract Partitive Case, but *partitive* to refer to simple morphological partitive, as in Finnish.

In this paper we pursue Belletti's basic idea – that definiteness is related to case assignment – but arrive at the opposite conclusion with respect to the status of Partitive and Accusative. We interpret Case Theory as a Licensing Theory, under which the assignment of Abstract Case licenses a syntactic position.⁴ Under this interpretation, morphological case is one possible instantiation of Abstract Case, while definiteness marking may provide another way to license syntactic positions.⁵ Such an interpretation of Case Theory allows us to make explicit the connection between Abstract Case and morphological case. We argue that both the Finnish partitive case and the Indo-European Partitive Case (i.e. indefiniteness marking on an NP in object position) are structural Cases, rather than inherent Cases. In addition to Finnish, we discuss data from Italian, Icelandic, and Dutch.

2. Partitive is not an Inherent Case

2.1 Introduction

Belletti (1988) provides a new analysis for the so-called "Definiteness Effect" attested in various languages (cf. Milsark 1974), a well-known phenomenon which blocks definite NPs from occurring in certain syntactic constructions, most notably existential sentences in English as shown in (1b):

- (1) a. *There is a man in the garden.* (=Belletti's 3b)
 b. **There is the man in the garden.* (=Belletti's 4b)

Belletti's basic idea is that sentences such as (1b) are ruled out because the copular verb *be* in existential constructions is an unaccusative verb incapable

of assigning (accusative) Case (cf. Perlmutter 1978, Burzio 1986). That is, (1b) is ungrammatical because the NP *the man* does not receive Case. This is an interesting idea since it involves analyzing the Definiteness Effect as a syntactic phenomenon derivable from the Case-assigning properties of a certain class of verbs.

If (1b) is ruled out because the verb does not assign Case to its complement, why, then, is (1a) grammatical? In effect, Belletti turns the problem of the Definiteness Effect around: rather than explaining why definite NPs are not allowed in existential constructions, we now need an explanation for why indefinite NPs are allowed in these constructions. Belletti proposes the following solution: indefinite NPs can get Case in a special way. The special way in which indefinite NPs in existential constructions get Case is via the assignment of an inherent Case: a universal Partitive Case. Thus, indefinite NPs are licensed as complements to unaccusative verbs by virtue of Partitive Case, but definite NPs are ruled out, because they are incompatible with Partitive Case.⁶

2.2 Reasons for assuming that Partitive is an Inherent Case

Following Chomsky (1981, 1986), Belletti assumes a distinction between two types of Case: structural and inherent Case. Inherent Case is associated with theta-marking and is assigned at D-Structure; whereas structural Case is assigned independently of theta-marking, at S-Structure (a similar distinction is made in other frameworks, e.g. Zaenen & Maling 1984 within LFG). The crucial property of inherent Case is that it can only be assigned in connection with theta-role assignment. Belletti suggests that Partitive is just such an inherent Case; the theta-role involved being an "existential theta-role" (Belletti 1988, footnote 5). Belletti assumes that Partitive is not associated with a particular role in a verb's theta-grid (cf. footnote 36), presumably since Partitive can be assigned to an object-NP with any theta-role. It is crucial for Belletti's analysis that Partitive is an inherent Case – otherwise it would have to be structurally assigned by the verb, and the explanation of the Definiteness Effect which relies on the suggestion that

4. That is, rather than Case being assigned to arguments in order to satisfy the Visibility Condition, Case is assigned to syntactic positions. This view provides a solution for an outstanding problem with the current formulation of Case Theory, namely that expletives require Case although they are not arguments (cf. Lasnik 1992 for a discussion expletives and Case Theory). If Case is assigned to syntactic positions rather than arguments, expletives are assigned Case along with arguments.

5. Cf. Vainikka (1989 Ch.3, 1990, 1993) and Clahsen, Eisenbeiss & Vainikka (1991) for further discussion on the relationship between morphological case and syntactic positions.

6. Belletti assumes that a definite NP may exceptionally receive Partitive Case, resulting in the so called "list reading" where a definite NP occurs in the existential construction (cf. Belletti's Section 2.4.1).

the verb cannot assign (Structural) Case in the relevant constructions would not go through.

Belletti provides several arguments for assuming that Partitive is an inherent Case. First, there is a semantic property involved in the assignment of Partitive Case, namely indefiniteness. However, as Lasnik (1992) points out, it is usually assumed (by Belletti, as well) that inherent Case is associated with thematic roles, rather than a semantic property that cuts across various theta-roles. Thus, this reason for assuming that Partitive is inherent does not seem very compelling, and we will not consider this to be an argument for the inherentness of Partitive Case. Belletti also discusses a constraint on the distribution of bare plural NPs. Bare plurals cannot occur as subjects of the small clause complement of *consider* type verbs in Italian (cf. Belletti 1988: 29). However, this argument seems irrelevant to the assignment of Partitive Case, since Partitive (i.e. indefinite) NPs may occur as subjects of the small clause complement of *consider* in Italian.

A further reason for assuming that Partitive is an Inherent Case is to avoid violating Burzio's Generalization. According to Chomsky (1986), the trace of NP-movement is not Case-marked. However, Belletti needs to assume that the impersonal passive in French (and Italian) can assign inherent Partitive Case (cf. Belletti 1988: 6) in order to account for the Definiteness Effect observed in the impersonal passive construction:

- (2) a *Il a été tue un homme.* (=Belletti's 10a)
 there has been killed a man
 b **Il a été tue l' homme.* (=Belletti's 10b)
 there has been killed the man

By assuming that partitive is an inherent Case, Burzio's generalization can be maintained for structural Case assignment. In the examples in (2), it is assumed that the passive verb cannot assign accusative case to the following NP; this accounts for the ungrammaticality of (2b). However, as with unaccusative verbs, an indefinite NP as in (2a) is possible due to the availability of Partitive Case assignment.⁷

7. The analysis to be presented in this paper also ends up violating Burzio's generalization. However, we do not consider this to be a problem for the analysis, since it is questionable whether Burzio's generalization holds cross-linguistically (cf. Maling & Sprouse 1992 and Goodall 1993). Thus, maintaining Burzio's Generalization seems to us not to be a strong reason for assuming that Partitive is an inherent Case.

The strongest argument for the Inherent status of Partitive Case comes from Raising verbs (Belletti 1988: 27-30). Raising verbs such as *sembrare* 'seem' do not allow an overt subject in their small clause complement in Italian as shown in (3b), even if this NP is indefinite:

- (3) a. *Molti studenti sembrano [t intelligente]*
 many students seem intelligent
 'Many students seem intelligent'
 b. **Sembra/*Sembrano [molti studenti intelligente]* (=Belletti's 66b)
 seems/seem many students intelligent
 'it/there seem many students intelligent'

Belletti attributes the ungrammaticality of such examples to the hypothesis that Partitive is an inherent Case associated with theta-role assignment.* Since a raising verb does not assign a theta-role to the subject of its small clause complement, it cannot assign an inherent Case to this NP.

Lasnik (1992) discusses passives of ECM verbs, a particular instance of the wider class of raising-to-subject verbs. As noted above for French, the impersonal passive construction in Italian exhibits the Definiteness Effect; this is attributed to the fact that passive verbs can assign Partitive Case but not Accusative Case. An ECM verb like *consider* (in the active voice) can assign Accusative Case, as shown by the fact that the subject of the small clause complement may be a definite NP, as in (4):

- (4) *Ho sempre considerato [Gianni intelligente]*
 I-have always considered Gianni intelligent (=Belletti's 67a)

But the passive of an ECM verb does not license an overt subject, even when it is indefinite, as shown in (5a):

- (5) a. **Sono considerati [alcuni studenti intelligente]*
 are considered some students intelligent (=Belletti's 72)

8. It is not clear why accusative should not be possible here, as an instance of ECM. Under Belletti's analysis, lack of Partitive assignment can only be used as an explanation when Accusative is not available either.

- b. *Consideravo [alcuni studenti intelligenti]*
I-considered some students intelligent (=Belletti's 74a)

Since (5a) is ungrammatical, Partitive in Italian must be a theta-linked Inherent Case. Although passive verbs in Italian generally have the ability to assign Partitive, a raising verb like *consider* does not assign a theta-role to the subject of its small clause complement, and therefore Partitive assignment (to an indefinite NP) is impossible. We will return to this argument in Section 3.4.

2.3 A problem with assuming that the Indo-European Partitive is inherent

Despite the reasons given above for assuming that Partitive is an inherent Case, Lasnik (1992) points out that there is reason to think that Partitive is a structural Case in both English and Italian. It is widely assumed in current work (cf. e.g. Safir 1987) that the copula *be* takes a Small Clause complement, as shown in (6):

- (6) [e] *be* [NP XP]

A definite NP (subject of the Small Clause) must raise to Spec(IP) position, while an indefinite NP may remain *in situ*, giving rise to an existential sentence. Under this analysis of existential sentences, however, the Definiteness Effect cannot be attributed to Partitive being an inherent Case, since the subject of the Small Clause cannot be assigned inherent Case by the matrix verb (since it is not assigned a theta-role by the matrix verb).

In addition to the argument based on the Small Clause analysis, Lasnik (1992) argues that unaccusative verbs do assign Case under adjacency, unlike what has been assumed previously. Note also that in some Germanic languages the copula assigns morphological accusative case to the predicative NP (cf. Maling & Sprouse (1991) for discussion). Lasnik concludes that *be* assigns Case structurally both in English and Italian, while it may be that content verbs assign Partitive Case inherently. We will argue in Section 3 that even content verbs assign Partitive Case structurally.

2.4 The Finnish partitive is not an inherent case

2.4.1 Indefiniteness and the Finnish partitive

Belletti's idea of a universal Partitive Case associated with indefiniteness is based on data from Finnish. In fact, Finnish is the only language described in Belletti's work in which Partitive is morphologically realized (but cf. De Hoop 1992 and Lasnik 1992 for possible morphological realizations of Partitive in Turkish, Hebrew, Russian and Greenlandic Eskimo). In most languages Partitive is an Abstract Case, not overtly realized. It is worth noting that the Finnish partitive case, although overt, does not have the properties that Belletti attributes to it.⁹

The basic problem is that the Finnish partitive is not associated with indefiniteness. Belletti takes the following contrast to show that partitive is associated with indefiniteness:

- (7) a. *Hän pani kirjat pöydälle.* (=Belletti's 1a)
he put books-ACC/PL table-on
'He put the books on the table'
b. *Hän pani kirjoja pöydälle.* (=Belletti's 1b)
he put books-PAR/PL table-on
'He put (some) books on the table'

In (7a) the definite object NP is marked with accusative case, while in (7b) the indefinite object NP occurs in partitive case. Traditional grammars of Finnish attribute the alternation between accusative and partitive to two semantic distinctions: resultative/irresultative (telic/atelic) and definite/indefinite (cf. e.g. Hakulinen & Karlsson (1979), Karlsson (1983), and Heinämäki (1984)).¹⁰

9. This results in the unfortunate situation where some instances of the Finnish partitive are at the same time instances of Abstract Accusative, while various instances of Belletti's Partitive would show up as accusative in Finnish. Cf. Sigurdsson (1989: 32-233) where it is argued that in Icelandic, Belletti's Partitive ends up being morphologically realized as accusative, dative, genitive or nominative. Maling (1988) also observes that the Definiteness Effect in Icelandic is independent of morphological case.

10. According to some authors, the Finnish partitive sometimes has the meaning *partial* as contrasted with *whole* (cf. Tarjavaara (1988)), i.e. the semantic partitive reading.

Syntactically speaking, partitive is the basic unmarked case of the object, corresponding to the English accusative, while the distribution of the Finnish accusative is semantically predictable (as argued in Vainikka (1989)).¹¹

Partitive often occurs on a definite NP in non-resultative sentences, as independently noted in Vainikka (1988) and De Hoop (1989), both commenting on Belletti (1988). Consider the following examples:¹²

- (8) a. *Hän luki kirjan.*
 he read book-ACC
 'He read a/the book'
 b. *Hän luki kirjaa.*
 he read book-PAR
 'He was reading a/the book'

In (8a) the accusative object implies that the reading of a/the book was completed; in (8b) completion of a/the book is not implied. Note that both the accusative object and the partitive object can readily be interpreted as definite NPs; since Finnish has no overt definite/indefinite articles, we need to rely on the possible interpretations of the bare noun.

In Belletti's examples above, the accusative object in (7a) implies that the putting of the books on the table has been finished, while the action may not have been completed in (7b) with the partitive object. Since Belletti assumes that something "special" (cf. her footnotes 3 and 6) is going on with singular NPs in Finnish, let us consider the following examples with plural objects:

- (9) a. *Kirjoitin juuri näitä kutsukortteja perjantaina,*
kun soitit.
 I-wrote just these-PAR invitations-PAR on-Friday
 when you-called
 'I was just writing these invitations on Friday when you called.'

11. Cf. Nikanne (1990) where a semantically plausible analysis of the accusative/partitive alternation is developed, based on the assumption that partitive is the basic case of the object and accusative is assigned based on a semantic feature.
 12. Only personal pronouns in Finnish have a unique accusative form (suffix *-t*), while the accusative of full NPs is homophonous either with genitive (suffix *-n*) or nominative (no suffix). Cf. Vainikka (1989; Ch.3) for a syntactic analysis of the distribution of the genitive and nominative realizations of the accusative.

- b. *Kirjoitin nämä kutsukortit perjantaina.*
 I-wrote these-ACC invitations-ACC on-Friday
 'I wrote (and finished) these invitations on Friday.'

Again, there is no difference in definiteness between the objects in (9a) and (b) – both are definite. The choice between accusative and partitive gives rise to an aspectual distinction.

A further property of Belletti's Partitive – one which is presumably related to indefiniteness – is that it is incompatible with universal quantification (Belletti 1988: 5) and with the quantifier *most* (footnote 16). Again, this does not hold for the Finnish partitive (cf. also De Hoop 1992):

- (10) a. *Jukka kokeili kaikkia reseptejä.*
 Jukka tried all-PAR recipes-PAR
 'Jukka tried all the recipes'
 b. *Pekka kokeili useimpia reseptejä.*
 Pekka tried most-PAR recipes-PAR
 'Pekka tried most (of the) recipes'

Thus, unlike Belletti's universal Inherent Partitive, the Finnish partitive is compatible with both definiteness and the quantifiers *all* and *most*.

We have seen that partitive NPs in Finnish are not always indefinite. For the sake of completeness, let us briefly consider the possibility that all indefinite NPs occur in partitive case. In fact, indefinite NPs often occur in partitive case, but this is not an absolute requirement. Consider an example with the quantifier 'some', which according to Belletti is a prototypical indefinite quantifier (Belletti 1988: 5, fn.15):

- (11) *Seija oli tavannut jonkun mielenkiintoisen taiteilijan.*
 Seija had met some-ACC interesting-ACC artist-ACC
 'Seija had met an (lit. 'some') interesting artist.'

Even if we could claim that examples such as the above are somehow special and that indefinite NPs always occur in partitive case, this would not suffice to provide evidence for Belletti's analysis. It is crucial for Belletti that inherent Partitive can only be assigned to indefinite NPs (to provide an explanation for the fact that only indefinite NPs may occur in existential

constructions as the complement of *be*), and this clearly does not hold for the Finnish partitive.

Thus, the Finnish partitive cannot be analyzed as a morphological realization of an abstract inherent Partitive Case that is only compatible with indefinite NPs. Although indefinite NPs commonly occur in partitive case in Finnish, the overall distribution of partitive case suggests that it is the basic case of the object, comparable to the accusative case in English; we will argue that the Finnish partitive is a structural Case in Section 3.

Let us now consider the possibility that the Finnish partitive is an instance of something related to Belletti's Partitive, but different in terms of the semantic feature involved. We shall leave open for now what such a feature may be, and consider another crucial property of Belletti's Partitive – being an inherent Case.

2.4.2 Inherent Case and the Finnish partitive

If partitive were an inherent Case in Finnish, we would not expect to find it on subjects of infinitivals or Small Clauses, as pointed out by Belletti (1988: 27).¹³ But an ECM verb – such as *consider* – cannot assign Inherent Case to the subject of its small clause complement, an NP which it does not theta-mark. In fact, however, *consider*-type verbs do assign partitive case to the subjects of their Small Clause complements in Finnish, as shown in (12), while accusative assignment is not possible:¹⁴

- (12) a. *Liisa pitää sinua??sinut älykkäänä.*
 Liisa considers you-PAR/ACC intelligent-ESSIVE(sg)
 'Liisa considers you intelligent'
- b. *Seija pitää mansikoita??mansikat parhaina marjoina.*
 Seija considers strawberries-PAR/ACC best-ESS(pl) berries-ESS(pl)
 'Seija considers strawberries (to be) the best berries'

13. Unless the infinitival verb assigns an inherent case to its subject, a possibility found in Icelandic (cf. Sigurðsson 1991).

14. The subjects of most infinitivals occur not in an objective case, but in the genitive, which Väinikka (1989; 1993) has shown to be a structural case of the specifier position, and not an instance of Exceptional Case Marking by the matrix verb.

The adjective *älykkäänä* in (12a) and the essive NP *parhaina marjoina* in (12b) must agree in number with the subject of the Small Clause. The matrix verb should not be able to assign inherent Case to the subject position of a Small Clause, and yet we find that the Finnish partitive readily occurs in this position. This indicates that the Finnish partitive cannot be an inherent Case.

Thus, it appears that the Finnish partitive cannot be an instance of Belletti's universal Partitive Case. The Finnish partitive is neither restricted to indefinite NPs nor is it inherently assigned. In the next section we will argue that inherent Case in general does not have the properties that Belletti attributes to her Partitive, suggesting that her Partitive is not an inherent Case.

2.5 Belletti's Partitive does not have the properties of Inherent Case

Although, as we have seen, the Finnish partitive does not have the properties that Belletti associates with Partitive Case, it is conceivable that some other language might have an inherent Case with the required properties – properties which the objects of English, Italian and Finnish unaccusative verbs share. In this section we show that the relevant properties do not hold for inherent Case cross-linguistically.

2.5.1 Optionality

Belletti notes that the assignment of Partitive Case must be systematically optional for all verbs, so that a definite argument of an unaccusative verb will not get ruled out at D-Structure before it undergoes NP-movement to a position where it can get assigned Nominative rather than Partitive Case, either to the preverbal subject position or, in a language like Italian, to a postverbal VP-adjoined position (Belletti's example 38). Belletti suggests (fn.36) that optionality might be a general property of Case assignment. However, optional assignment is not a property of inherent Case cross-linguistically. Inherent Case is typically associated with a particular position in a verb's theta-grid, an assumption which is made to account for the phenomenon of case-preservation under NP-movement (Zaenen, Maling and Thráinsson 1985). While diachronic changes in a verb's case grid are, of course, possible, inherent Case marking on a given verbal argument is

typically obligatory, and does not alternate with structural Case on that argument.¹⁵ This is true even in languages like Icelandic which exhibit the same Definiteness Effect phenomena that the assumption of the universal Partitive was designed to account for. Thus for languages like Icelandic, Belletti's inherent Partitive would be the only inherent Case that is optionally assigned to verbal arguments, is not lexically governed, and is not associated with a particular theta-role in a verb's theta-grid. This undermines the appeal of attributing the Definiteness Effect to properties of inherent Case.

On the other hand, if Partitive is a structural Case, as we argue in Section 3, these properties are entirely expected on the standard assumption that structural Case is assigned at S-Structure, after the complement of the verb has moved out of the VP.

2.5.2 Verbal agreement

A more serious problem with the Partitive-as-Inherent-Case Hypothesis lies in the fact that in the Indo-European languages under discussion, finite verbs agree (e.g. in number) with the indefinite NPs that have been analyzed as bearing inherent Partitive. Cross-linguistically, NPs bearing inherent (lexically assigned) Case differ from NPs bearing structural Case in that they block verbal agreement. In Hungarian, accusative objects trigger the definite verbal conjugation, but lexically case-marked objects do not (Marácz 1988). In Czech, Instrumental predicate NPs cannot control agreement, unlike nominative predicate NPs (Corbett 1988: 32 and fn.17, p.41). In Icelandic (as Belletti correctly observes), oblique subjects never trigger subject-verb agreement; this holds regardless of the position of the subject. Similarly, an oblique argument in the impersonal passive or in the existential construction does not trigger subject-verb agreement, as shown in (13):

- (13) *Það er bjargað mörgum strákuum úr fjallinu.*
 it is rescued many-DAT boys-DAT from the-mountain
 'Many boys are rescued from the mountain.'

15. There are exceptions to this generalization, e.g. Korean where the Goal argument of many ditransitive verbs exhibits case alternations between accusative and dative (cf. Maling and Kim (1992)); this, however, seems to be a very different phenomenon from the optional assignment of Belletti's Partitive.

Belletti claims that "quirky subjects and partitive subjects behave exactly alike" (p.27) with respect to agreement, and cites Finnish data in support of this claim, cf. the lack of agreement in (14):

- (14) *Vieraita tulee.* (=Belletti's 62)
 guests-PAR/PL come-3SG

Since we have shown (Section 2.4) that the Finnish partitive is not an instance of Belletti's Partitive, examples such as (14) do not provide us any information about the nature of Partitive Case. We will see in Section 3 that the lack of agreement in (14) is due to the fact that the partitive NP has been moved from the object position, where it was assigned structural partitive case. Thus, the partitive NP in (14) is no more comparable to quirky subjects than an accusative object in English is; both are instances of structural object Cases, and neither agrees with the verb.

Therefore, Partitive Case does not behave "exactly like" inherent Case. Moreover, it is not true that Partitive NPs fail to agree with the verb. In fact, what Belletti fails to observe is that in the Indo-European languages under discussion, verbal agreement with the indefinite postverbal NP analyzed as bearing Partitive Case is obligatory, as shown in the Icelandic examples in (15):

- (15) a. *Það eru komnir margir strákar úr fjallinu.*
 it are come many boys-NOM from the-mountain
 'Many boys came from the mountain.'
 **Það er komið margir strákar úr fjallinu.*
 it is come many boys-NOM from the-mountain

Since otherwise only nominative NPs trigger agreement with finite verbs in Icelandic, under Belletti's analysis it would be necessary to say that inherent Partitive is not only morphologically identical to structural Nominative Case, but moreover, is the only inherent Case which triggers agreement. Agreement with the postverbal indefinite NP that Belletti analyzes as bearing Partitive Case is also obligatory in Italian:¹⁶

16. Interestingly, Belletti fails to give any monoclausal Italian examples with plural indefinite NPs. Thanks to Andrea Calabrese for providing the examples in (16)-(17).

- (16) a. *Sono arrivati tre ragazzi.*
 are arrived three boys
 'There have arrived three boys.'
 b. **È arrivato tre ragazzi.*
- (17) a. *È stato messo un libro sul tavolo.* (=Belletti's 18a)
 has been put a book on-the table
 'A book has been put on the table'
 b. **È stato messo tre libri sul tavolo.*
 has-SG been-SG put-SG three books on-the table
 c. *Sono stati messi tre libri sul tavolo.*
 has-PL been-PL put-PL three books on-the table
 'Three books have been put on the table.'

It is worth emphasizing that Belletti's Partitive Case is morphologically identical to nominative case in all the Indo-European languages she cites. The observed agreement is entirely expected if the NPs have indeed been assigned nominative, but unexpected if they bear an inherent Case. In the following section we will argue that both the Indo-European Partitive and the Finnish partitive are structural Cases.

3. Partitive is a Structural Case

3.1 Summarizing the discussion

So far we have seen that assuming Belletti's Partitive to be an inherent Case is problematic for various reasons. There is evidence that the Finnish partitive – which provides the empirical justification for Belletti's Partitive Case – is not an inherent Case, but a structural one. Furthermore, the properties that Belletti attributes to Partitive Case are not properties of an inherent Case, cross-linguistically speaking. In addition, Lasnik (1992) has argued the English (and Italian) Partitive assigned by *be* and other unaccusative verbs is a structural Case.

Lasnik (modifying Belletti 1988) assumes that content (i.e. noncopular) verbs in English and Italian may assign either structural Accusative or inherent Partitive Case. Since Partitive assignment in these languages is only

visible when Accusative cannot be assigned (resulting in the Definiteness Effect), it is impossible to test empirically whether content verbs actually assign Partitive Case – inherently, structurally, or at all.

Recall the reasons for assuming that Partitive is an inherent Case (Section 2.2). One argument from Italian still holds, even given Lasnik's arguments about Partitive being structurally assigned in the existential and unaccusative constructions. Included under this generalization is Lasnik's argument that the passive form of *consider* cannot assign Partitive (unlike other passive verbs) due to the lack of theta-role assignment to the relevant NP; in a similar vein, Belletti explained the fact that Raising verbs cannot assign Partitive to the subject of the Small Clause as following from the lack of theta-role assignment.

Setting aside this argument for the moment, we wish to explore the possibility that Partitive Case is always a structural Case. We assume that Abstract Case is assigned in order to license syntactic positions rather than being assigned to arguments, as assumed under the Visibility Condition (cf. Chomsky 1981; 1986). Let us first consider Finnish partitive, and then turn to a discussion of Abstract Partitive (i.e. indefiniteness).

3.2 The Finnish partitive is a Structural Case assigned at D-Structure

3.2.1 Objective Case

Recall the discussion in Section 2.4.2, where we argued that the Finnish Partitive is not an Inherent Case. The fact that it occurs on the subject of Small Clause complements suggests that partitive is a structurally assigned Case (since the matrix verb does not assign a theta-role to the subject of the small clause); cf. the examples in 2.4.2.

Of the two objective cases in Finnish, the accusative case has traditionally been taken to be the unmarked case, while partitive is something special. However, Vainikka (1989; 1993) has argued for the opposite view: that a special feature is required for the assignment of accusative case, while partitive is an 'elsewhere' case (cf. also Heinämäki 1984 for a similar view).

17. Cf. Nikanne (1990) who uses Vainikka's analysis to construct a semantically based model of argument structure.

Thus, accusative is associated with a resultative aspect, and only occurs when assigned by a verb with the feature [+COMPLETED]:¹⁷

- (18) a. *Maija osti hatun.*
 Maija-NOM bought hat-ACC
 'Maija bought a hat'
 b. *Maija osti hattua.*
 Maija-NOM bought hat-PAR
 'Maija was buying a hat'

When the action has not been completed, as in (18b), only partitive case is possible. Furthermore, in negative sentences the object occurs in partitive case only:¹⁸

- (19) a. **Maija ei ostanut hatun.*
 Maija-NOM not bought hat-ACC
 'Maija did not buy a hat'
 b. *Maija ei ostanut hattua.*
 Maija-NOM not bought hat-PAR
 'Maija did not buy/was not buying a hat'

It has been proposed (cf. e.g. Vainikka 1989) that the feature [+COMPLETED] is incompatible with negation; one cannot simultaneously negate a verb and imply that the action has been completed.

Apart from being the typical case of complements of verbs, partitive is also the usual case of objects of prepositions, while accusative is impossible:

- (20) a. *ilman sateenvarjoa*
 without umbrella-PAR
 b. **ilman sateenvarjon*
 without umbrella-ACC

18. This is reminiscent of the genitive of negation in Russian; note that since in our view cases which have been traditionally considered oblique cases may turn out to be structural cases, it is in principle possible that the genitive in Russian is also a structural case.

In addition, some quantifiers in Finnish occur with a partitive NP; again, accusative is never possible with such heads:

- (21) a. *kaksi/monta poikaa*
 two many boy-PAR
 'two/many boys'
 b. **kaksi/monta pojan*
 two many boy-ACC

Based on the fact that accusative only occurs in one construction combined with a specific semantic feature, while partitive occurs in various constructions, Vainikka (1989; 1993) has proposed that the Finnish partitive is the structural (default) Case of the complement position, i.e. the Finnish partitive is the default realization of the Abstract Case assigned to the complement position, completely comparable to the English accusative. In Finnish, the so-called accusative only arises if it is assigned based on a specific semantic feature.¹⁹

Given this analysis of the Finnish partitive, it is not surprising to find that partitive is common in existential sentences, as in (22a), and in unaccusative constructions, (22b):

- (22) a. *Keittiössä oli likaisia astioita.*
 kitchen-in was-3SG dirty-PAR/PL dish-PAR/PL
 'There were dirty dishes in the kitchen.'
 b. *Kaupasta tuli asiakkaita.*
 store-from came-3SG customer-PAR/PL
 'There came customers from the store.'

Let us assume, following the Unaccusative Hypothesis (Perlmutter 1978; Burzio 1986) that the partitive NP is the complement of the unaccusative

19. As is well-known, the aspectual property expressed by the feature [+COMPLETED] is not a lexical property of the verb alone, but is a compositional property of the predicate, i.e. the verb plus its complements, directional modifiers, etc. (Verkuyl 1972 and Dowty 1979, *inter alia*). For example, the simple verb "to eat" expresses an atelic activity, and "eat pizza" is also [-COMPLETED], but "eat the pizza" is [+COMPLETED]. Thus, insofar as Case expresses aspectual properties, it is not assigned by the verb directly, but by the entire predicational complex.

verb in these examples, as also assumed by Belletti (1988). We propose that the partitive case is found in these examples due to the fact that the verb does not have the feature [+COMPLETED] and thus accusative cannot be assigned.²⁰

Similarly, an ECM verb in Finnish cannot assign the feature [+COMPLETED] to the subject of its Small Clause complement, and only partitive, the structural Case of the complement position, is possible in such contexts.

3.2.2 Structural Case assigned at D-Structure

As we have seen, in Finnish partitive case – rather than accusative – is the structural Case of the object position. However, unlike structural Case in general, the Finnish partitive appears to be assigned already at D-Structure. In addition to WH-movement and other A'-movement, partitive NPs readily undergo NP-movement.²¹ Consider the following examples:

20. There is related construction in Finnish which may involve accusative assignment by the unaccusative verb, related to the feature [+COMPLETED]:

- (i) *Keittiössä oli uudet matot.*
kitchen-inwas-3SG new-PL rug-PL
'The kitchen had new rugs.'
- (ii) *Kaupasta lähti kaikki asiakkaat.*
store-from left-3SG all customer-PL
'All the customers left the store'

However, since in Finnish the plural accusative form is identical to the nominative, the postverbal NP could be either nominative or accusative in this construction.

If these examples involve assignment of objective case to a definite NP by the unaccusative verb, we may conclude that the Definiteness Effect does not hold in Finnish with respect to the complement position of unaccusative verbs. However, due to the lack of overt articles, it is sometimes difficult to determine whether a particular NP is definite or indefinite. Cf. Chesterman (1991) for an insightful analysis of definite and indefinite NPs in Finnish.

21. These types of examples clearly involve movement to the Spec(IP) position, rather than to Spec(CP). WH-phrases and topicalized NPs obligatorily precede the NP in Spec(IP); regardless of whether A'-movement takes place or not, one NP has to raise to the position immediately preceding the verb in INFL. This NP need not be the subject, as shown in (23). Cf. Vainikka (1989; Ch.2) for further discussion.

- (23) a. *Likaisia astioita oli joka paikassa.*
dirty-PAR/PL dish-PAR/PL was-3SG every place-in
'There were dirty dishes everywhere'
- b. *Pekkaa pidetään älykkäänä.*
Pekka-PAR is-considered intelligent-ESSIVE
'Pekka is considered intelligent'
- c. *Pekkaa/Pekka/häntä/hänet vietiin sairaalaan.*
Pekka-PAR/ACC/him-PAR/ACC was-taken hospital-to
'Pekka/he was being taken to the hospital'

As shown in (23a), the partitive NP of an existential sentence may precede the verb (without being topicalized). The subject of the Small Clause complement of *consider* may be passivized and raised, again in partitive case, as shown in (23b). In the (impersonal) passive construction, the verb retains its case assignment property (both for partitive and accusative), and a partitive or accusative NP may be raised to the preverbal position.²²

Given that partitive case is preserved under movement, we are forced to conclude that the Finnish partitive is assigned at D-Structure although it otherwise behaves as a structural Case.²³

3.2.3 Summary of Finnish objective case

Partitive case is the morphological realization of structural Case assigned by the head to the complement position; this assignment takes place already at

22. The NP raised to Spec(IP) in the impersonal passive construction need not be the D-Structure object. Instead of the object in (23c) the locative phrase could have raised, resulting in (i) (which is not a topicalization construction):

- (i) *Sairaalaan vietiin Pekkaa.*
hospital-to was-taken Pekka-PAR
'Pekka was being taken to the hospital'

23. De Hoop (1992), based on Vainikka (1989), proposes that the Finnish partitive is an instance of her 'Weak Case', a structural Case assigned at D-Structure. However, we differ from De Hoop in maintaining that structural Case in the Indo-European languages is assigned at S-Structure; cf. discussion below.

D-Structure. Accusative case is assigned by a special aspectual feature to the complement, presumably also at D-Structure. Heads which are incompatible with this feature only assign partitive case in Finnish; this includes the following heads: prepositions, quantifiers, (most instances of) unaccusative verbs, and the ECM verb *pitää* 'consider'. Since these heads do not have the feature [+COMPLETED] they cannot assign accusative case to the complement; hence the only possible case of the complement is the default realization, partitive case. In the analysis we have proposed, the distribution of the Finnish partitive is independent of the notion of definiteness.

3.3 The Indo-European Partitive as a Structural Case

3.3.1 Structural Case and markedness

Under our assumptions a head may assign to its complement either (i) no Case, (ii) structural Case only, or (iii) both structural and inherent Case. Intransitive verbs, nouns and adjectives belong to the first category. An example of a head which assigns only structural Case (i.e. partitive) is the Finnish preposition which never takes an accusative complement. Transitive verbs in Finnish, on the other hand, belong to the third group: the semantic feature responsible for accusative assignment is available to them, resulting in partitive/accusative alternation.

Since structural Case is assigned purely configurationally, based on X'-Theory, we expect a structurally Case-marked NP to represent the unmarked form occurring in any particular syntactic position. For example, nominative case is the unmarked form for elements occurring in Spec(IP) position. Inherent Case-marking, on the other hand, is not predictable from the configuration, but derives from the lexical and/or thematic properties of a particular head; we therefore consider inherently Case-marked NPs to represent a marked form in any particular syntactic position. Furthermore, since structural Case is independent of particular lexical entries, it would be surprising to find restrictions on structural Case assignment beyond restrictions that can be coded in X'-theory (e.g. that N/A heads cannot assign Structural Case). Thus, we do not expect to find a configuration in which structural Case cannot be assigned but inherent Case is available (which is what Belletti proposed for unaccusative verbs), while the reverse situation may arise.

Belletti's (1988) fundamental idea is that the definite/indefinite distinction of English, Italian and other languages should be encoded in the Abstract Case system. Her Partitive Case corresponds to the indefinite feature of an NP complement. Although we have argued that Belletti's Partitive is not an inherent Case, we wish to consider the possibility that the Abstract Partitive is a structural Case. In other words, we will address the question of whether indefinite NPs are unmarked in the complement position in the Indo-European languages, i.e. structurally assigned, like the Finnish partitive²⁴ and whether definite NPs in that position are somehow special, i.e. assigned based on a specific semantic feature, similar to the Finnish accusative.

The fact that many Indo-European languages exhibit the Definiteness Effect suggests in our system that indefiniteness is indeed the unmarked feature in the complement position.²⁵ That is, there are constructions in which only indefinite NPs may occur, while the reverse seems not to hold.²⁶

Let us now turn to a further construction (in Dutch) which supports the idea that Abstract Partitive is a structural Case assigned at S-Structure; i.e. that indefinite NP is the unmarked form in the complement position.

3.3.2 Structural Partitive in Dutch

Indefinite NPs in Dutch exhibit the adjacency effects typical of structural Case assignment. Consider the following examples (from De Hoop (1992; Ch.3)):

24. The Indo-European Partitive would be the structural Case only for full NPs (i.e. for NPs which mark the indefinite/definite distinction). In a language such as English we can say that the unmarked form of a full NP in complement position is an indefinite NP, while the unmarked form of a pronoun in this position is accusative (because personal pronouns are intrinsically definite). In a language where both definiteness and case features are marked on an NP, such as German, the unmarked form of any NP in the complement position would be an indefinite accusative NP.
25. Although indefiniteness may be the unmarked feature in the complement position, other positions such as the subject position would presumably have a different unmarked form, just as different positions are associated with different morphological cases.
26. For example, if the quantifier is taken to be the head in constructions such as *many boys* or *many a boy*, it is conceivable that the quantifier is selecting an indefinite NP as its complement (e.g. *boys*). Recall (Section 3.2.1) that in Finnish such quantifiers take a partitive complement.

- (24) a. *dat de politie gisteren taalkundigen opgepakt heeft*
 that the police yesterday linguists arrested has
 'that the police arrested linguists yesterday'
 b. **dat de politie taalkundigen gisteren opgepakt heeft*
- (25) a. *dat de politie gisteren de taalkundigen opgepakt heeft*
 that the police yesterday the linguists arrested has
 'that the police arrested the linguists yesterday'
 b. *dat de politie de taalkundigen gisteren opgepakt heeft*

According to De Hoop, non-specific indefinite NPs cannot be scrambled out of their D-Structure position in Dutch; although (25b) is grammatical – with a scrambled definite NP – (24b) is ungrammatical.

Based on data from Dutch and other languages, De Hoop (1992) argues that what she terms "Weak Case" (corresponding to Belletti's Partitive) is a structural Case. We agree with her arguments. However, she assumes that (Weak) Structural Case is assigned at D-Structure (while Strong Structural Case is assigned at S-Structure). To account for the scrambling facts in (24-25), she stipulates that NPs marked with Weak Case cannot move from their D-Structure positions via NP-movement;²⁷ A'-movement, however, is possible. That is, indefinite NPs base-generated in the complement position may not scramble, although both definite and indefinite NPs may participate in A'-movement.

We propose that the Dutch data can be accounted for elegantly by assuming that the Indo-European Partitive (i.e. indefiniteness feature in the object position) is assigned at S-Structure, contrary to De Hoop's proposal. If Partitive is a structural Case that can only be assigned by a governing head at S-Structure (as proposed by Lasnik 1992), then there is no way to assign Case to a position too far away from the head, such as the landing site of NP-movement. As long as Case Transmission is not available (following Lasnik 1992), the scrambled NP in (25b) does not receive structural Case. It should thus be impossible for nonspecific indefinite NPs to occur in a position into which structural Case cannot be assigned at S-Structure.²⁸ Definite NPs in

Dutch, on the other hand, are assigned (Accusative) Case at D-Structure and therefore they freely undergo NP-movement.

Note that this phenomenon is not expected in English, since the only landing site of NP-movement in English is the subject position where the NP gets structural Nominative Case.

3.3.3 Unaccusative verbs

Recall that Lasnik (1992) argues that the English/Italian Partitive assigned by unaccusative verbs should be analyzed as a structural Case. If Belletti's Partitive is a structural Case, and if we stipulate that unaccusative verbs can only assign structural Case, then these verbs can only license a complement position when the object is an indefinite NP.

In other words, unaccusative verbs, including *be*, cannot assign the marked [+definite] feature to their complement.²⁹ The only possible form of the complement is the unmarked default form of the complement position, an indefinite NP.³⁰ Using Belletti's terminology, this would mean that

WH-movement, can be Case-marked, resulting in a situation where structurally Case-marked overt NPs may occur far away from the Case assigner; such NPs receive Case via their trace.

29. This analysis of the Definiteness Effect may seem unexplanatory; note, however, that it is no less explanatory than Belletti's explanation based on Abstract Inherent Partitive Case. Since, as we have shown, Belletti's Partitive does not have a morphological counterpart, "Partitive NP" in both her analysis and in our analysis boils down to a restatement of "indefinite object NP". In our analysis, however, the notion of heads which only assign structural Case is independently motivated by overt morphological case marking in Finnish.
30. The exceptions to Definiteness Effect, such as the list reading or the presentational reading (e.g. *Well, there's always the new janitor*) would most naturally be analyzed in our approach as involving a definite NP in a position other than the complement position. Consider the following contrast:
- (i) **There came our cat into the room.*
 (ii) *There came into the room our cat.*

To the extent that (ii) is grammatical, this suggests that a definite argument of an unaccusative verb is possible in a non-adjacent position. Cf. Belletti (1988: 9) who convincingly argues that postverbal definite subjects of unaccusative verbs in Italian do not occupy the position of sister to the verb.

27. De Hoop argues that Scrambling in Dutch is an instance of A'-movement, not A'-movement.

28. We follow standard Case Theory in assuming that a trace of A'-movement, such as

unaccusative verbs cannot assign an inherent Accusative to their complements, but only the structural Partitive Case is available, while Belletti proposed that only an inherent Partitive Case is available for these heads.

Similarly, the impersonal passive constructions discussed by Belletti which exhibit the Definiteness Effect (as in French) involve an impersonal passive verb which is only capable of assigning structural Case to the complement position.³¹

As already mentioned in Section 2.5.1, Belletti needs to assume that Partitive assignment is optional in order to account for the fact that definite NPs are possible as subjects of unaccusative verbs. If Partitive were *obligatorily* assigned at D-Structure, only indefinite NPs should even be found as the subject of an unaccusative verb in Italian (since, according to the Unaccusative Hypothesis, such subject NPs originate in the object position). However, if Partitive is a structural Case, assigned at S-Structure after NP-movement, an NP can be base-generated in the object position and moved out before structural Case assignment takes place. This accounts for the definite arguments of unaccusative verbs in Italian without a special stipulation on optionality of Case assignment. Furthermore, the special assumption about Case stacking of Nominative and Partitive that Belletti makes is not required (Belletti 1988: 25) if Partitive is an structural Case assigned only at S-Structure; cf. also the discussion in Section 2.5.2.

3.3.4 Case vs. definiteness – complementary distribution?

The conclusion we have reached, based on Belletti's basic idea, is a very interesting one in that it suggests that morphological case and the overt realization of definiteness may belong to the same syntactic process, Abstract Case assignment with a morphological default realization. It may not be an accident that Finnish with a rich case system has no overt marking of (in)definiteness, while English has a rich system of definiteness combined with little case realization. Note that the subsystem of English that has overt

case marking, personal pronouns, has no overt realization of definiteness. If the two phenomena are part of the same process, it is not surprising to find (a degree of) complementary distribution.³²

Let us conclude by returning to the Italian data.

3.4 The Italian Partitive is a Structural Case

3.4.1 Indefinite as an 'Elsewhere' Case

The Definiteness Effect holds for unaccusative verbs and impersonal passive verbs in Italian; that is, only indefinite NPs can occur as complements of such verbs. Since definite NPs cannot occur in these constructions (while the distribution of indefinite NPs does not seem to be restricted), we have an argument for Partitive being the unmarked structural Case for the complement position in Italian, exactly as in English and Dutch. The difference between English and Italian is then that the English passive verb assigns no Case to the complement position, while the Italian passive verb assigns Case to the complement position. Recall that both objective cases are preserved in the Finnish impersonal passive; the Italian passive, however, only gives rise to the default form, indefinite NPs.

Again, as with English and Dutch, our conclusion is that Partitive Case (i.e. indefiniteness marking on an object) is a structural Case in Italian, contrary to Belletti's assumption. On the other hand, Accusative (i.e. [+definite] in the object position) behaves less like a Structural Case; its assignment is based on a semantic feature.

3.4.2 The arguments for Inherent Case revisited

Recall the remaining argument for Partitive as an inherent Case in Italian: raising verbs, including the passives of ECM verbs, exhibit no Definiteness

31. Since the impersonal passive verb seems to lose the ability to assign Accusative, or the feature [+definite], to the complement position, this suggests that Accusative is also a structural Case. What is crucial for our analysis is that Partitive is an unmarked structural Case, i.e. indefinite NPs are the default realization of objective Case in the Indo-European languages; we leave open the exact status of Accusative.

32. Although languages such as German and Icelandic where NPs may be marked both for case and for definiteness are counterexamples to this generalization, it might be possible to distinguish languages (or syntactic positions within languages) based on whether case marking is "stronger" than definiteness marking, or vice versa; such a distinction could reflect a parametric choice in terms of the features represented e.g. in the DP projection.

Effect; i.e. they do not assign Partitive to the embedded subject. This can be explained if Partitive is an inherent Case, since no theta-role is assigned by the matrix verb. Note that for both the passive form of *consider* and the raising verbs, not only Partitive assignment is blocked but also Accusative assignment, resulting in obligatory raising of the embedded subject.

A serious problem with Belletti's analysis of raising verbs is that in Finnish (and also in Icelandic) the embedded subject position is not licensed even when the embedded verb assigns lexical (inherent) Case to its subject. Consider the examples in (26):

- (26) a. *Näyttää (siltä), että sinulla on jano.*
 seems-3SG it-ABL that you-ADE is-3SG thirst
 'It seems that you are thirsty'
 b. *Simulla näyttää olevan jano.*
 you-ADE seems-3SG be-INF thirst
 'You seem to be thirsty'
 c. **Näyttää (siltä) sinulla olevan jano.*
 seems-3SG it-ABL you-ADE be-INF thirst

The embedded clause in (26) has a quirky subject in adessive case (one of the locative cases, meaning *at*). This quirky subject acts as a subject of a tensed clause as shown in (26a). It may be raised out of an infinitival clause, resulting in a raising construction as shown in (26b). However, the quirky subject is not allowed to remain in the subject position of the embedded infinitival clause, as shown in (26c), although the NP bears inherent Case. This suggests that more than case assignment is at stake in (26c), and that no subject position is licensed in the embedded infinitival of a raising verb, regardless of case marking.³³

Thus, the data from languages with rich morphological case marking, such as Finnish and Icelandic, suggest that the explanation for obligatory raising of the embedded subject of small clause complements of raising verbs and the passive of *consider* cannot be based on case marking, since

even case-marked NPs have to raise.³⁴ Although it is not clear why raising verbs cannot assign Case to the subject of their small clause complement, we are confident that an explanation based on the assumption that Partitive is an inherent Case is too costly; in other respects, the advantages of analyzing both the Indo-European Partitive and the Finnish partitive as structural Cases far outweigh the explanation of raising verbs as involving assignment of inherent Case.

4. Conclusion

The distribution of indefinite NPs in object position in various Indo-European languages and the fact that indefiniteness is the unmarked form of an NP in this position. In the spirit of Belletti (1988) we have explored the possibility that definiteness marking is a feature encoded in Abstract Case assignment. For full NPs in various Indo-European languages, the morphological realization of abstract Objective Case is an indefiniteness marking, while in Finnish (which does not morphologically mark (in)definiteness) the realization of structural Case in the object position is partitive case. Definite full NPs in Indo-European, and accusative NPs in Finnish, are licensed in this position only in the presence of a special feature.

Under our analysis, the Definiteness Effect arises due to the inability of unaccusative verbs to assign any special features; only the (default) realization of structural Case is available for these heads. Why certain heads assign only structural Case and others no Case at all remains a topic for future research. However, our analysis of unaccusative verbs along these lines is supported by the similar behavior of certain heads in Finnish (e.g. prepositions) with respect to overtly marked morphological case.

We have shown that Belletti's assumptions about morphological case cannot be upheld. We argue that neither the morphological partitive of Finnish nor the Abstract Partitive of Indo-European is assigned inherently.

33. That is, the presence of lexically-specified case is not sufficient to license a syntactic position; structural Case is required for licensing a position.

34. Cf. Sigurðsson (1991) for an analysis of raising verbs according to which the subject of the embedded infinitival is not properly head-governed, and the subject is forced to raise.

Rather, by extending Lasnik's (1992) analysis we argue that both are examples of structural Case.

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Bare plurals, plural pronouns and the partitive constraint¹

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0. Introduction

In this paper, I will be concerned with the problem of giving a semantic analysis of plural pronouns contained in partitive NPs where the antecedent of the pronoun is a bare plural. A problem arises if we try to maintain the following two claims:

- (I) The partitive constraint is a semantic constraint.
- (II) The relation between a plural pronoun and a bare plural antecedent that doesn't c-command the pronoun is coreference.

Bare plurals are not allowed in partitive NPs:

- (1) a. **each of beetles*
- b. **most of cats*
- c. **some of people*

However, plural pronouns whose antecedent is a bare plural are grammatical in partitives as the examples in (2) and (3) show.

- (2) Judicial decisions protecting the environment *are rare, and the Supreme Court is overturning many of them*
- (3) Raccoons *came into my backyard, so I poisoned all of them*

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