

The Morphosyntax of Case and Adpositions

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The Morphosyntax of Case and Adpositions

De Morfosyntaxis van Casus en Adposities
(met een samenvatting in het Nederlands)

Proefschrift

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door

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te Oxford, Engeland

Promotor: Prof. dr. N. F. M. Corver

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CHAPTER 1

Case in morphology and syntax

1.1 Introduction

This dissertation addresses the question of the mapping from syntactic structures to the full range of morphological cases in paradigms such as (1)-(6).¹

- (1) Latin nominal case paradigm (Burns et al. 1989/1995)

Case	'table'	'master'	'king'	Description
Nominative	<i>mensa</i>	<i>dominus</i>	<i>rex</i>	basic form
Vocative	<i>mensa</i>	<i>domine</i>	<i>rex</i>	address
Accusative	<i>mensam</i>	<i>dominum</i>	<i>regem</i>	direct object
Genitive	<i>mensae</i>	<i>domini</i>	<i>regis</i>	possessor
Dative	<i>mensae</i>	<i>domino</i>	<i>regi</i>	recipient
Ablative	<i>mensa</i>	<i>domino</i>	<i>rege</i>	by/with/from

- (2) Ancient Greek nominal case paradigm (Usher 1981/1994)

Case	'citizen'	'word'	'night'	Description
Nominative	<i>polites</i>	<i>logos</i>	<i>nux</i>	basic form
Vocative	<i>polita</i>	<i>loge</i>	<i>nux</i>	address
Accusative	<i>politēn</i>	<i>logon</i>	<i>nukta</i>	direct object
Genitive	<i>politou</i>	<i>logou</i>	<i>nuktos</i>	possessor
Dative	<i>politei</i>	<i>logoi</i>	<i>nukti</i>	recipient

¹The presentation of paradigms and glossed examples may differ from that in the sources cited in terms of order and glossing, for the sake of maintaining consistency and to facilitate comparison. Except where otherwise stated, examples from Hungarian and Finnish are adapted from Rounds (2001) and Karlsson (1999), with help from György Rákosi and Riitta-Liisa Valijärvi.

(3) German definite article case paradigm (Durrell 1996:60)

Case	Masculine	Feminine	Neuter	Description
Nominative	der	die	das	subject
Accusative	den	die	das	object
Genitive	des	der	des	possessor
Dative	dem	der	dem	goal/recipient

(4) Hungarian nominal case paradigm

Case	'hour, clock, watch'	Description
Nominative	óra	subject, citation form
Accusative	órát	object
Dative	órának	goal/recipient
Instrumental	órával	means/instrument
Illative	óra ba	to interior
Inessive	óra ban	at interior
Elicative	óra ból	from interior
Sublative	óra ra	to exterior
Superessive	óra n	at exterior
Delative	óra ról	from exterior
Allative	óra hoz	to proximity
Adessive	óra nál	at proximity
Ablative	óra tól	from proximity
Causal	óra ért	for the the sake of
Essive	óra ként	as
Terminative	óra ig	as far as, until
Translative	óra vá	into (change of state)
Distributive	óra nként	per
Temporal	óra kor	at (time)
Sociative	óra stul	with

(5) Finnish nominal case paradigm

Case	'bear'	Description
Nominative	karhu	subject, citation form
Accusative	karhu, karhun	direct object
Genitive	karhun	possessor
Partitive	karhua	indefinite quantity
Illative	karhuun	to interior
Inessive	karhussa	at interior
Elicative	karhusta	from interior
Allative	karhulle	to exterior
Adessive	karhulla	at exterior
Ablative	karhulta	from exterior
Abessive	karhutta	without
Essive	karhuna	as
Translative	karhuksi	into (change of state)
Comitative	karhuine-	with

(6) Lezgian nominal case paradigm (van Riemsdijk and Huybregts 2001:4)

Case	'bear'	Description
Absolutive	sew	citation form
Ergative	sewre	agent
Genitive	sewren	possessor
Dative	sewrez	recipient
Inessive	sewre	in
Inelative	sewreaj (sewräj)	out of
Superdirective	sewreldi	onto
Superessive	sewrel	on
Superrelative	sewrelaj	off
Addirective	sewrewdi	toward
Adessive	sewrew	at
Adelative	sewrewaj	from
Postdirective	sewreqhdi	to behind
Postessive	sewreqh	at behind
Postrelative	sewreqhaj	from behind
Subdirective	sewrekdi	to under
Subessive	sewrek	at under
Subelative	sewrekaj	from under

Informally described, case emerges as a set of variations in the form of the noun or its associated categories (determiners, pronouns, or adjectives) which is sensitive to syntactic context, particularly argument structure, or semantic interpretation, and generally independent of other nominal features such as number and gender. (7) shows the uses of several different Hungarian cases. The examples are by no means exhaustive for the use of each case, but give

some illustration of the differences between cases.²

- (7) Hungarian cases in use (Rounds 2001)
- a. Nominative
El-indul-t a **vonat**.
PV-depart-3SG.PST the train.NOM
'The train departed.'
 - b. Accusative and dative
Fel-olvas-t-am a level-ek-**et** az ap-ám-**nak**.
PV-read-PST-1SG the letter-PL-ACC the father-1SG-DAT
'I read the letters to my father.'
 - c. Instrumental
Busz-**szal** vagy metró-**val** menjünk?
bus-INSTR or metro-INSTR go.SUBJ.1PL
'Shall we go by bus or by metro?'
 - d. Illative
Be-megyek a régi ház-**ba**.
into-go.1SG the old house-ILL
'I am going into the old house.'
 - e. Inessive
Három könyv van a tásk-ám-**ban**.
three book be.3SG the bag-1SG-INESS
'There are three books in my bag.'

From (7) it appears that case plays a role in marking the dependency relation between the predicate and the noun, also sometimes distinguishing the different arguments.

The central question of the dissertation regards the relationship between cases and adpositions in those contexts in which they overlap, and how recognition of this relationship can be integrated into a consistent treatment of cases, one that would account for the full range of cases in paradigms such as (1)-(6). The analysis is couched in terms of the Principles and Parameters framework (Chomsky 1981; 1986; 1995), with the mapping between morphology and syntax working along the lines of Distributed Morphology (Halle and Marantz 1993).

In a cross-linguistic perspective the use of many cases overlaps with the use of adpositions. Both case and adpositions can be identified as appearing in four major syntactic contexts. The first, sometimes thought of as semantic or 'peripheral' with regard to case, is found in contexts where the case or adposition used seems to have predicate status, forming an adverbial phrase independent of the main predicate of the sentence. (8) gives an example from Hungarian using different cases, in a context where English uses prepositions.

²A list of abbreviations used in interlinear glosses appears on page 199.

(8) Peripheral/semantic cases (Hungarian)

- a. Géza olvas **a kert-ben**.
 Geza read.3SG the garden-INESS
 ‘Geza is reading **in the garden**.’
- b. Kovács-ék-nál vol-t-am **két hét-ig**.
 Kovavács-PL-ADESS stay-PST-1SG two week-TERM
 ‘I stayed with the Kovácses **for two weeks**.’

The second context of interest here is that in which the same cases can appear, still with independent semantic contributions, but in which they seem to be selected by the verb, as in (9). Evidence that these cases are selected comes from the fact that the nouns marked in boldface cannot simply be omitted here, by contrast with those in (8).

(9) Selected, semantically meaningful cases (Hungarian)

- a. Két-emeletes **ház-ban** lak-om.
 two-storey house-INESS live-1SG
 ‘I live in a two-storey house.’
- b. **Soká-ig** tart-ott az előadás.
 long-TERM last-PST.3SG the lecture
 ‘The lecture lasted a long time.’

The third context is that in which the same cases appear to be selected by the predicate but without making a predictable semantic contribution to the interpretation. Instead they appear to be idiosyncratically selected by a particular lexical head. This includes examples such as those in (10).

(10) Idiosyncratically selected cases (Hungarian)

- a. Hisz-ek **János-ban**.
 believe-1SG János-INESS
 ‘I believe in János.’
- b. **István-nal** beszél-ek.
 István-ADESS speak-1SG
 ‘I am speaking with István.’

The fourth context is often regarded as the core grammatical use of case, and tends to be seen as more prototypical of case and less so of adpositions. However, certain languages mark all such differences with adpositions. This is illustrated with Japanese, a language which uses postpositions, alongside Hungarian, which marks the distinctions with cases.³

³Evidence that these are phonologically postpositions (separate words) rather than cases (phonologically attached to the noun) comes from coordination structures, as in (i) (from Mana Kobuchi p.c.), where *ga* (NOM) and *o* (ACC) cannot be repeated on both nouns.

- (i) a. John to Mary **ga** ringo to nashi **o** tabeta.
 John and Mary NOM apple and pear ACC ate
 ‘John and Mary ate an apple and a pear.’
- b. John (***ga**) to Mary **ga** ringo (***o**) to nashi **o** tabeta.
 John NOM and Mary NOM apple ACC and pear ACC ate

- (11) Core/Grammatical cases
- a. Japanese (Blake 1994:10)
Sensei **ga** Tasaku ni hon **o** yat-ta.
teacher NOM Tasaku IND.OBJ book ACC give-PST
'The teacher gave Tasaku a book.'
- b. Hungarian (Rounds 2001:258)
Dénes könyv-**et** olvas a nappali-ban.
Dénes.NOM book-ACC read.3SG the living.room-INESS
'Dénes is reading a book in the living room.'

Cases and adpositions overlap in all four of these important areas of the distribution of morphological cases.

Case can also co-vary with other factors such as animacy, definiteness, or type of nominal (pronoun vs full noun), in a manner known as differential case marking (Aissen 1997; 2003a;b). (12) is an example from Hebrew, where objects are only case marked if definite.

- (12) Differential object marking in Hebrew (Aissen 2003b:453)
- a. Marking on definite object
Ha-seret her'a **'et**-ha-milxama.
the-movie showed ACC-the-war
'The movie showed the war.'
- b. Absence of marking on indefinite object
Ha-seret her'a (***'et**)-milxama.
the-movie showed ACC-war
'The movie showed a war.'

This type of alternation in (12) is key to the analysis I develop of the core cases (those with less clear semantic content).

I start out from the hypothesis that at least some cases and adpositions are syntactically identical, differing at the post-syntactic morphological level. The main observation that emerges from the following investigation is that several syntactic subdivisions can be made, both amongst cases (variations in the form of the noun), and amongst adpositions (separate words adjacent to the noun), relating them to the categories P, D and ϕ (a projection for number and possibly person features). At the same time some cases and some adpositions perform the same functions: the same set of subdivisions can be made amongst cases as amongst adpositions.

The central claim of the thesis is that the variety of morphological phenomena termed 'case' relate to the syntactic categories P (adpositions), D (determiners) and ϕ , such that a notion of a syntactic category for case is not needed to account for the types of morphological variations in the noun illustrated in (1)-(6). These same syntactic categories can also be spelt out as separate words in the noun phrase. From a syntactic perspective, case is an epiphenomenon, relating to several separate nominal categories. In the morphology, case becomes identifiable as differing from adpositions in many languages, cases

forming part of another word and adpositions standing as separate words, as identified on language-specific diagnostics for wordhood. Supporting evidence for this claim from several different languages is considered, the main analysis focusing on detailed studies of Hungarian and Finnish and the way in which they compare with English.

This chapter introduces the notion of case, examining the major empirical phenomena I aim to account for and the theoretical apparatus that has been connected with this term. Section 1.2 outlines some influential theoretical approaches, focusing on the Principles and Parameters framework (Chomsky 1981; 1986; 1993; 1995), and highlights problems raised by this approach. In Section 1.3 I proceed to outline an alternative analysis, based on the idea that certain cases are associated with the category P (Fillmore 1968 among others), an idea already present in the literature on morphologically rich languages. This is taken in conjunction with the notion that the category P forms an extended projection of the noun (Grimshaw 2000), part of a decomposed noun phrase along the lines of Déchaine and Wiltschko (2002) and Cardinaletti and Starke (1999). I form a proposal under which the range of cases found in paradigms such as those in (1)-(6) correspond to the different functional projections of the noun. The section also includes discussion of theoretical assumptions important for the analyses to come. Finally, Section 1.4 outlines the following chapters.

1.2 Theoretical background

The use of cases in different languages raises many complex questions which go far beyond the paradigms presented in (1)-(6). This section reviews the relevant theoretical approaches to case. Section 1.2.1 outlines some previous approaches to the different uses of case which call for divisions within the category. Section 1.2.2 describes the approach in the Principles and Parameters framework.

1.2.1 Distinctions amongst types of case

Blake (1994:1) defines case broadly as ‘a system of marking dependent nouns for the type of relationship they bear to their head.’ In theoretical terms there are several separate concepts identifiable under the term case. On a morphological level, the term refers to the variations in the form of the noun relating to argument structure, as illustrated with the paradigms in (1)-(6). As will be seen in the following subsections, this does not always lead to a clearly defined set of cases. As illustrated in (8)-(11), case is used in several different contexts.

The following subsection looks firstly at the ‘peripheral’/‘core’ case distinction and the way in which this relates to what can be counted as case. I proceed to examine the theoretical distinction between syntactic and morphological case, considering when items that differ in form can be seen as belonging to one and the same case, and when they must be seen as two different cases. These distinctions form the background for the approach to Case in the Principles and Parameters framework, and are of some importance for the analysis to be developed in this study.

‘Core’ vs ‘peripheral’ cases

Amongst the more elaborate case paradigms, such as (4)-(6), a distinction is sometimes made between ‘core’ and ‘peripheral’ cases. This is an intuitively salient difference between those cases which relate most clearly to argument structure and have relatively abstract interpretations (the core cases), and those cases which have more concrete, contentful, or consistent semantic contributions to interpretation (the peripheral cases). Examples of core cases would be the nominative, accusative, and dative, in a language such as Latin (13), where the cases clearly relate to argument structure, the nominative marking the subject, accusative the object and dative the recipient.

- (13) Core cases relating to argument structure (Latin)

senatus imperium mihi dedit.
Senate.NOM command.ACC me.DAT give.PST.3SG

‘The Senate gave me the command.’ (Augustus Caesar RGDA 1)

Examples of more peripheral cases would be cases that are never selected by a specific predicate, often cases with clear semantic content, such as those in (14).

- (14) Peripheral cases (Hungarian)

- a. Temporal case

Hat órá-**kor** jön házá.
six hour-TEMP come.3SG home
‘He is coming home at six o’clock.’

- b. Causal case

Minden-t meg-tesz a család-já-**ért**.
everything-ACC PV-do.3SG the family-3SG-CAUS
‘He does everything for his family.’

The distinction has been important in theoretical terms, contributing to a discussion as to the inflectional or derivational status of cases in morphological approaches, and forming the basis for syntactic divisions between grammatical and lexical cases, and structural and inherent cases (discussed below in 1.2.2). Kiefer (1987) argues for treating several of the Hungarian suffixes listed as cases in (4) (including the temporal case illustrated in (14-a)) instead as derivational suffixes forming adverbs, rather than as inflectional case suffixes (cf. also Iggesen 2005). Kiefer’s view is discussed in more detail in Chapter 2. Other approaches have seen core and peripheral cases as intrinsically related, or as extremes on a continuum. Thus Anderson (1971; 1977) builds a localist theory of case in which the cases relating to argument structure are seen as extensions of the use of spatial cases, which would generally be seen as peripheral cases. Van Riemsdijk (1981:appendix b) attempts to formalise the idea of a gradation from core case functions, which he claims are most likely to be spelt out by morphological cases, and peripheral case functions, most likely to be spelt out by adpositions, the core cases being characterised by features

relating them to subjecthood and distance from the subject and the peripheral functions by the negative values of these features.

Given that the same individual case can sometimes have both peripheral and core functions, as illustrated in (15), the latter approaches, recognising a gradation from core to peripheral, seem to be more effective for analysing the full range of cases in a paradigm than those that see the difference as a discrete split. In (15), (a) shows the inessive used to mark the argument of the verb, whereas in (b) it has a concrete semantic interpretation. (The differences in case form between the two examples (-*ban*/*-ben*) are a result of vowel harmony).

- (15) Hungarian inessive case used in core and peripheral functions
- a. Core argument case
 Hiszek János-**ban**.
 believe.1SG János-INESS
 ‘I believe in János.’
 - b. Peripheral, spatial case
 Géza olvas a kert-**ben**.
 Geza read.3SG the garden-INESS
 ‘Geza is reading in the garden.’

For the purposes of the present study I therefore do not assume an underlying difference in the core and peripheral cases, though I continue to make informal use of the terms for descriptive purposes. The related matter of the level of semantic content of a case receives further treatment in Section 1.3.4 and in the following chapters.

Syntactic and morphological case

A central point of reasoning about case in the Principles and Parameters framework rests on the idea that a case distinction that can be seen in the morphology in a particular context is also abstractly present when that case distinction cannot be seen but the context is the same. An example is the difference between the English noun and pronoun in object position. As illustrated in (16), only the pronoun is case marked in the object position, the full noun appearing in the same form whether it is a subject or an object.

- (16) Difference between object marking on the English noun and pronoun
- a. Absence of marking on object noun
 John hugged Bill.
 - b. Presence of marking on object pronoun
 John hugged him/*he.

Instead, on the basis of the pronominal case distinction it is assumed that English has a nominative-accusative (or sometimes nominative-oblique) distinction which shows up overtly in the morphology of pronouns but which is only present at the abstract syntactic level in nouns. Thus the distinction is drawn between morphological case (the paradigmatic changes in morphological

form) and syntactic Case (the syntactic licensing system for nouns). Problems with this reasoning are raised in Section 1.3.1.

1.2.2 Case/case in Principles and Parameters

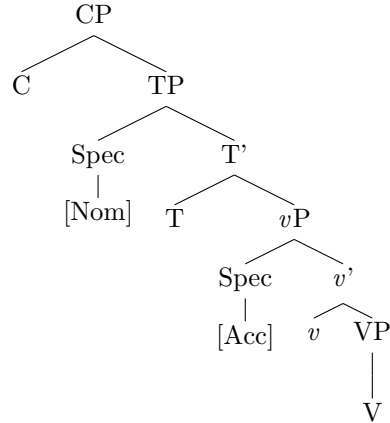
As a theory of syntax, Principles and Parameters focuses on syntactic Case, assuming that it is universally present across languages (Rouveret and Vergnaud 1980), and that its expression in morphology is parameterised. Case is regarded as a feature of nouns and predicates, thus formalising the notion of dependent marking. It is licensed by heads under government in Government Binding (Chomsky 1981), in a specifier-head configuration in early Minimalism (Chomsky 1993; 1995), and later under c-command by the operation Agree (Chomsky 2001). The standard theory distinguishes two types of Case, structural and inherent Case. The notion of core and peripheral case, outlined in Section 1.2.1 corresponds to some extent to the split between structural and inherent case described below, where the licensing mechanisms for the types of Case are also addressed. I also examine the relation between θ -role and Case, seeking to explain the reason why case is necessary in language.

Structural and inherent Case

The difference between structural and inherent Cases somewhat corresponds to the difference between core and peripheral cases respectively. Structural Cases are licensed in syntax, without reference to the θ -role of the argument concerned. Arguments are assigned θ -roles when they are first merged into the derivation. Inherent Case is licensed at this point, in connection with the θ -role.

Nominative and accusative are structural Cases, checked in particular configurations. In English, the subject moves overtly from the specifier of v P to the specifier of TP, whereas the object moves covertly to the specifier of v P. According to Minimalist assumptions (Chomsky 1993; 1995), nominative, canonically the subject Case, is checked in Spec-TP, and accusative, canonically the object Case, is checked in Spec- v P (17), or later by Agree with these categories (Chomsky 2001). Structural Cases are standardly seen as uninterpretable, and therefore must be checked and deleted in syntax.

- (17) Nominative and accusative Case checking positions



(See Pesetsky and Torrego 2004 for an alternative account in which both nominative and accusative are analysed as instances of uninterpretable Tense features on the DP, with interpretable counterparts on T).

Inherent Cases, on the other hand, are interpretable features, and are assumed to be found in positions where a θ -role is also assigned by the predicate. Genitive is an inherent case found on the complement of a noun (18), and many other oblique cases are checked within PP (19) and idiosyncratically by certain verbs (20).

- (18) Genitive in NP (German, Durrell 1996:35)

das Haus meines Bruders
the house my.GEN brother.GEN

‘my brother’s house’

- (19) Inherent case in PP (Latin)

ex oppido
out town.ABL

‘out of the town’

- (20) Inherent case in VP (German Durrell 1996:365)

Er half **seinem Vater** in der Küche.
he help.PST his.DAT father in the.DAT kitchen

‘He helped his father in the kitchen.’

Burzio’s Generalisation (Burzio 1986), in (21), regulates the licensing of accusative Case.

- (21) Burzio's Generalisation
- i A verb with an object Case marks its object iff it θ -marks its subject.
 - or
 - ii A verb which lacks an external argument fails to assign accusative Case and a verb which fails to assign accusative Case fails to θ -mark an external argument.

This captures the observation that accusative case disappears under passivisation as compared with the active counterpart sentence (22).

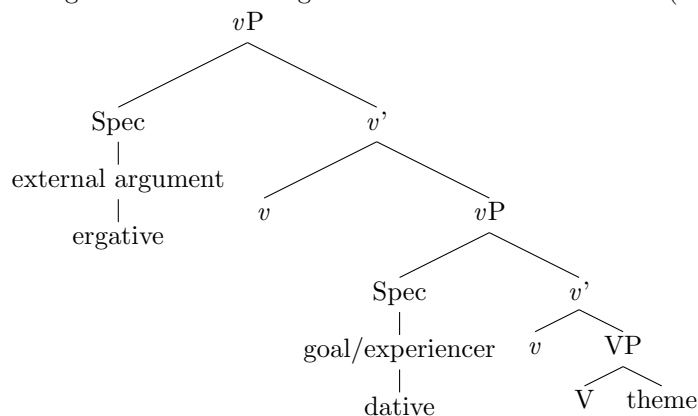
- (22) Disappearance of accusative under passivisation
- a. Active sentence with accusative object
John kicked **him**.
 - b. Passive counterpart lacking accusative
He was kicked.

Woolford (2006) makes a further distinction amongst the non-structural Cases, dividing *lexical* Case from inherent Case. Lexical Case (sometimes termed idiosyncratic or *quirky* case elsewhere) is the Case selected by individual verbs and prepositions, as in (23).

- (23) Icelandic lexical Case in VP (Woolford 2006:114)
- a. **Bátnum** hvolfdi.
boat.DAT capsised
'The boat capsised.'
 - b. **Bátninn** rak á land.
boat.ACC drifted to shore
'The boat drifted to shore.'
 - c. **Jóns** nýtur ekki lengur við.
John.GEN enjoys not longer at
'John is no longer available.'

Inherent Case, on the other hand, is more regular than lexical Case, in Woolford's view, and is directly related to the type of θ -role and with the argument position involved, as illustrated in (24). The upper light *v* licenses ergative Case to the external argument, and the lower light *v* licenses dative Case to direct argument goals and experiencers. The Cases here are all treated by Woolford as inherent, whereas lexical Cases are those that are idiosyncratically selected, as in (23), thus falling outside the pattern in (24).

- (24) Configuration for licensing of inherent cases in Woolford (2006:116)



Structural, inherent and lexical Case thus capture some of the observable differences noted in (8)-(11) at a deeper level, associating types of case with syntactic positions.

Θ -role and visibility

This brings us to the question of why Case should be present in syntax and how it should be seen to fit into an optimal language system. Although inherent Case is standardly regarded as technically interpretable, many instances in practice have unpredictable interpretations (far from a one-to-one correspondence of θ -roles to individual Cases), and structural Case is always uninterpretable. The answer is standardly assumed to lie in θ -role and the notion of visibility.

Inherent Case is closely related to θ -role. It is interpretable, and is licensed in the position where an argument first merges, where the θ -role is assigned. All arguments are assigned a θ -role, but not all arguments have inherent Case. Those that are merged without inherent Case have uninterpretable structural Case features which must be checked and deleted in the course of the derivation. Strong features are checked in the overt syntax, causing movement, whereas weak features are checked in the covert syntax before Logical Form (LF).

The theta criterion (Chomsky 1981) states that all arguments must be assigned a θ -role and that all θ -roles must be assigned to an argument in order for the derivation to converge. All nouns must have Case in order to fulfil the visibility condition, which states that Case is necessary for making the θ -roles visible at LF (Chomsky 1981; 1986).

1.3 Outline of the proposal

Nothing in the Principles and Parameters approach to syntactic Case predicts the overlap between case and adpositions observed in (8)-(11), or the range and variability of morphological cases shown in (1)-(6) and (12). The existing possible solutions for such overlap have not been integrated into the standard

approach to case. This dissertation seeks to fill this gap, proposing an integrated approach. The overlap of cases and adpositions is explained by their spelling out the same range of categories (P, D and ϕ) in syntax, forming part of the extended projection of the noun, the difference being derived at the morphological level. The idea that semantic cases as well as adpositions spell out P is not new, but fares less well with the core cases. I propose that these be treated as exponents of the lower extended projections of the noun, D and ϕ .⁴

The following sections outline the proposal in more detail. Section 1.3.1 explains the motivation behind the proposal, looking at several problems with the standard Principles and Parameters approach to case, as well as the main ideas which inspired the present solution. Section 1.3.2 outlines my alternative proposal step by step. Sections 1.3.3 and 1.3.4 then set out the terminology to be used in the dissertation and my construal of the Principles and Parameters framework on matters such as word order and agreement, which clearly interact with the issue of case and adpositions.

1.3.1 Starting point

This section outlines the motivation for the proposal and the problem of the interaction between cases and adpositions. Firstly I provide further examples of the overlap between the two categories in a cross-linguistic perspective, and describes work taking this overlap into account, most notably Fillmore (1968), who argues that cases spell out the category P, and Grimshaw (2000), who argues that P is in the extended projection of the noun. I proceed to point out that the adoption of some version of Fillmore and Grimshaw's ideas leads to inconsistencies in the overall approach to case, and shows that further adjustments are needed in order to rectify this. Finally I observe some further problems in the overall approach to case and the interface between syntax and morphology.

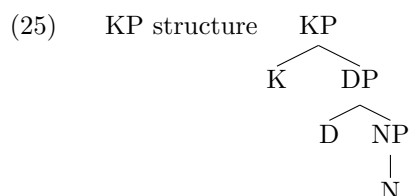
The adposition connection

The idea of a connection between adpositions and case is not new. Blake (1994:9-10) suggests regarding adpositions in languages such as Japanese as *analytic case markers*, the morphological modifications of the noun such as those in Latin or Hungarian emerging as synthetic markers. Iggesen (2005:203), in a survey of the number of cases in different languages, points out the difficulty of teasing apart adpositions and cases in certain languages, stating a common grammaticalisation process from postposition to clitic to case suffix as one of the interfering factors, alongside the difficulty of forming and comparing diagnostics for independent word status across languages.

In syntactic theory there has also been recognition of the connection between adpositions at a synchronic level. Fillmore (1968) proposed that cases in languages such as Latin had the same structure as preposition phrases in

⁴I regard PP, not DP, as the outer extended projection in accordance with Grimshaw (2000), as outlined in more detail in Section 1.3.4.

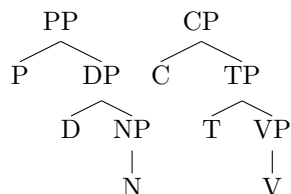
languages such as English, involving an empty P projection where case is concerned. A similar line has been taken in various areas of past research including Emonds (1985; 1987) on English, Vogel and Steinbach (1998) and Bayer and Bader (2006) on German, Nikanne (1991) and Kracht (2002) on Finnish, and van Riemsdijk and Huybregts (2001) on Lezgian. Emonds specifically proposes that an adposition may be alternatively realised as case morphology on the noun. Others maintain that there is a more general link between case and additional nominal functional structure termed KP (Bittner and Hale 1996, Neeleman 1997, Bayer et al. 2001, Weerman and Evers-Vermeul 2002, among others), assumed to occupy a position above the DP projection, and below structures such as PP, as in (25), since Case applies to the entire DP, including the determiner as well as the noun.



I suggest that instances where KP has been postulated can be accounted for with PP, on the following grounds: firstly, the researchers on KP note that the K position may sometimes be filled by a preposition (Bayer et al. 2001); secondly, the data to be treated in this study does not provide evidence for the need for a specific separate category K, and in the absence of such evidence it seems desirable to keep the inventory of categories to a minimum. McFadden (2004:56) provides arguments for the same point.

In this connection work by Grimshaw (2000) on the notion of extended projections also offers an interesting perspective. Grimshaw claims that the nominal and verbal extended projections are as in (26), firmly relating the category P to the noun, as its outermost functional projection, comparable to C in the verbal domain. Note also that Emonds (1985) explicitly claims that P and C form the same category.

(26) Nominal and verbal extended projections Grimshaw (2000)



The primary reason for drawing a parallel between cases and adpositions is their distributive and functional similarities, based on comparison between languages and within individual languages. The following examples (27)-(29) show cross-linguistic overlap, the numbered sentences exemplifying cases which have prepositions as equivalents in the English translations.

- (27) Hungarian case marked nouns
- a. Inkább ceruzá-**val** ír-ok, mint toll-**al**.
rather pencil-INSTR write-1SG than pen-INSTR
'I prefer to write **with** a pencil than **with** a pen.'
 - b. a ház-**ba**
the house-ILLAT
'**into** the house'
 - c. a kert-**ben**
the garden-INESS
'**in** the garden'
 - d. az terem-**ből**
the classroom-ELAT
'**out** of the classroom'
 - e. az asztal-**ra**
the table-SUBL
'**onto** the table'
 - f. tévedés-**ből**
mistake-ELAT
'**by** mistake'
- (28) Latin case marked nouns
- a. hoc tempore
this.ABL time.ABL
'at this time' (Jespersen 1924:126)
 - b. viator pecuniam **praedonibus** tradidit.
traveller money.ACC robber.DAT.PL hand.over
'The traveller handed over the money **to** the robbers.'
(Burns et al. 1989/1995)
- (29) Lezgian case marked nouns (van Riemsdijk and Huybregts 2001)
- a. sewre-**qh-aj**
bear-POSTESS-ELAT
'**from behind** the bear'
 - b. sewre-**qh-di**
bear-POSTESS-DIR
'**to behind** the bear'

Clearly adpositions and cases perform a similar semantic function, sometimes having equivalent interpretations. They can also be seen to have similar syntactic functions, performing the same role in argument structure, relating the noun to the main predicate in the sentence, as shown in (8)-(11).

This connection between adpositions and cases forms the starting point for my investigation, beginning with the working hypothesis that the syntactic structures of both adposition phrases and noun phrases with morphological case are PPs. This is shown to have some success for the semantic cases, but cannot usefully be applied to all cases without losing otherwise interesting distinctions between types of case and other categorial distinctions.

Theoretical consistency

As noted in Section 1.3.1, there has been an implicit decomposition of case paradigms in recent syntactic theorising, with some researchers relating morphemes traditionally seen as cases instead to the head P in syntax. This approach, however, seems to have had a relatively small impact on mainstream research within the Principles and Parameters framework. This appears to be the result of three main factors. Firstly, the seminal works on the architecture of the theory (Chomsky 1981; 1986; 1993; 1995), where they mention Case, focus on structural Case, with little to say about the nature of inherent Case, except that it more closely reflects θ -role, and little on morphological case. Secondly, the languages which have received the most attention in generative linguistics are those which make little use of case suffixes and much use of adpositions. In the Germanic languages, for example, the difference between adpositions and cases is often clear-cut in appearance, adpositions emerging as words separated from the noun and cases as affixes or stem changes on the noun (or an associated category such as the determiner), as in (30).

- (30) German adpositions and cases
- a. durch den Nebel
through the.ACC mist
'through the town'
 - b. aus dem Haus
out the.DAT house
'out of the house'

Prepositions in languages such as English are clearly separate words, whilst case suffixes, in the few pronominal contexts where they appear at all, are clearly bound morphemes. Thirdly, the languages most frequently studied with respect to Case in this framework are relatively low in morphological cases. Morphological case, however, is a widespread phenomenon in the world's languages. The *World Atlas of Language Structures* (Haspelmath et al. 2005) presents the results of several surveys on the topic, including the finding that only 338 of a 934-language survey lacked case (having neither case affixes nor adpositional clitics), among those languages, English, French, Spanish, Italian, Portuguese and Japanese (Dryer 2005b). A further survey looking at the number of cases in different languages found that 137 of a survey of 261 had two or more cases (a minimal paradigm), and 24 languages had more than 10 different cases (Iggesen 2005).

In the Principles and Parameters framework Case is touched upon in the building of analyses of many different phenomena, relating to argument structure, person and number agreement on the verb or auxiliary, and movement. When one takes Case as a continuous phenomenon in itself, however, the overall picture that emerges is not consistent. Some scholars, for example, adopt the KP notation for case, or assume that certain cases spell out PP, but there is little direct discussion of the difference it makes whether cases are regarded as features of nouns (or determiners, as in Giusti 1995) or as heads of full projections in their own right, or of whether such analyses apply to the full range

of cases in paradigms such as (1)-(6) or only to some part of them.

The Principles and Parameters framework treats both nominative and accusative as different varieties of the same thing, namely uninterpretable Case features. However, recent findings in research on Case (Bittner and Hale 1996, Neeleman and Weerman 1998, Weerman and Evers-Vermeul 2002) show that it is more appropriate to analyse nominative (and absolutive in ergative languages) as the absence of syntactic case, further contributing to the decomposition of paradigms. From a theoretical perspective, if one accepts that many cases are exponents of the category P, and that nominative is absence of Case, then this leaves accusative and a few others such as genitive and partitive, which fit neither the P-case nor the absence-of-Case analyses, looking rather exceptional.

As observed in the previous section, there is a clear link between certain cases and adpositions. In this dissertation I argue that this link can be captured neatly by regarding both surface phenomena as the spell-out of the same syntactic structure, a PP. The purpose of this dissertation is to find a way of incorporating the view that some cases and adpositions are members of the category P into a consistent analysis of the full range of cases in paradigms such as those in (1)-(6), taking into account the analysis of nominative as absence of Case, and supplying a fitting analysis of accusative and other cases that seem neither to fit the P-analysis nor to involve absence of Case. I propose that the full range of case and adposition overlap from peripheral to core cases in the types of paradigms mentioned can be accounted for in a consistent way if the core cases are then related to lower functional projections of the noun, D and ϕ .

Other problems with the Principles and Parameters approach

Setting aside the problem of integrating recognition of the adposition-case connection into the wider theory of case, the overall picture of case that emerges in the Principles and Parameters framework involves several inconsistencies. The items understood under ‘Case’ and ‘case’ in syntactic theory do not correspond to a natural class in terms of cross-linguistically identifiable phenomena. Linking primitive features to these concepts and deriving syntactic operations based on them is therefore problematic. Specific questions arise in connection with the treatment of differential case marking, generally considered a syntactic and semantic issue, and morphological issues such as syncretism and allomorphy. Structural Case also appears rather remarkable in syntax in being the only type of feature to be always uninterpretable, with no interpretable counterpart.

Differential case marking and allomorphy The notion of differential case marking, where an argument of one type (e.g. a definite noun) has a certain case marking and a similar argument of another type (e.g. an indefinite noun) in the same syntactic context has a different marking, seems to be in conflict with the notion of allomorphy (where nouns of different classes have different markings), and the notion of abstract case without a morphological spell-out.

In mainstream Principles and Parameters, English is not normally treated as a differential object marking language. The difference between marking of case on pronouns but not on full nouns (31) (repeated from (16) above) is normally treated as the presence of the same syntactic case on both nouns and pronouns, but with morphological case absent on full nouns.

- (31) Difference between object marking on the English noun and pronoun
- a. Absence of marking on object noun
John hugged Bill.
 - b. Presence of marking on object pronoun
John hugged him/*he.

However, this seems not so different from the distinctions seen between types of objects in languages considered to be differential object marking languages, as with definite and indefinite object marking in Hebrew (32) (repeated from (12)).

- (32) Differential object marking in Hebrew (Aissen 2003b:453)
- a. Marking on definite object
Ha-seret her'a 'et-ha-milxama.
the-movie showed ACC-the-war
'The movie showed the war.'
 - b. Absence of marking on indefinite object
Ha-seret her'a (*'et)-milxama.
the-movie showed ACC-war
'The movie showed a war.'

This in turn is not very different from certain distinctions traditionally treated as syncretism (the use of the same form in one class, where two or more forms are distinguishable in equivalent contexts in another class) and allomorphy. For example, in Latin there is a nominative-accusative case distinction in masculine and feminine gender nouns, but in neuter nouns there is syncretism, as illustrated in (33).

(33) Latin nominative-accusative syncretism

Number	Case	Masculine 'master'	Feminine 'table'	Neuter 'war'
Singular	Nominative	dominus	mensa	bellum
	Accusative	dominum	mensam	bellum
Plural	Nominative	domini	mensae	bella
	Accusative	dominos	mensas	bella

Russian accusative, as it is standardly analysed (Franks 1995, Timberlake 2004), exhibits syncretism with the nominative and the genitive, and is uniquely marked only in one declension and on pronouns. Only the declension in *-a* (largely but not exclusively feminine nouns) has morphology specific to accusative case. In the other declensions, animate nouns have an accusative

syncretic with genitive and inanimate nouns have an accusative syncretic with nominative. (34) illustrates these patterns.

(34) Russian accusative

	<i>-a</i> decl animate	<i>-a</i> decl inanimate	masculine animate	masculine inanimate
Case	‘daughter’	‘pen’	‘husband’	‘house’
Nom	dočka	ručka	muž	dom
Acc	dočku	ručku	muža	dom
Gen	dočki	ručki	muža	doma

In Finnish, as it is standardly analysed, there is a similar two-way syncretism of accusative-nominative and accusative-genitive, but constrained by context (as pointed out in Kiparsky 2001), as well as variation sensitive to nominal or pronominal status. This is illustrated in the following examples and treated more fully in Chapter 4. What has traditionally been analysed as accusative in Finnish is spelt out variously by the suffixes *-n* and *-t* (35-a), and by a bare noun (35-b), the latter when the verb is imperative.⁵

- (35) Finnish accusative
- a. Accusative *-n* and *-t*
- Jukka söi leivä-**n** / hän-**et**
 Jukka.NOM ate bread-N / 3SG-T
 ‘Jukka ate the bread / him.’
- b. Second person imperative with bare object
- Maal-aa Jukka!
 paint-2PL Jukka.NOM
 ‘Paint Jukka!’

The accusative *-n* suffix (35-a) is syncretic with the possessive genitive (36) and the bare form of the accusative (35-b) is syncretic with the nominative, as in the subject in (35-a).

- (36) Finnish genitive
- Mari-**n** talo
 Mari-GEN house.NOM
 ‘Mari’s house’

Only the pronouns have a suffix unique to the object position, the suffix *-t* in (35-a), but even this is identical to the nominative and accusative plural marker on full nouns (37).

⁵For expository purposes, I gloss nominative (the bare form) as NOM and the suffixes as -N and -T when describing the usage of others. In Chapter 4 I argue for dividing the cases somewhat differently, treating -N as genitive and -T as accusative, and from that point on I gloss cases according to the arguments presented there.

- (37) Finnish plural *-t* on nominative and accusative nouns
- a. Nominative plural
 Auto-**t** ovat kadu-lla.
 car-PL are street-INESS
 ‘The cars are in the street.’
- b. Accusative plural
 Osta-n auto-**t**.
 buy-1SG car-PL
 ‘I buy the cars.’

This might be treated as a situation calling for a notion of allomorphy. Spencer and Otaguro (2005:123), for example, claim that ‘the Finnish syntactic accusative...is expressed by nominative or genitive (except in pronouns).’ However, it can also be argued that the syntactic context changes across these examples (as in Kiparsky 2001). The difference between the indicative verb in (35-a) and the imperative verb in (35-b) is a change in syntactic context, determining the difference between the use of a case suffix and a bare noun. Even the difference between the pronominal and nominal marking in (35-a) can be explained in syntactic terms. Given recent insights into noun phrase structure showing differences between nouns and pronouns (Abney 1987), and between different types of pronouns (Cardinaletti and Starke 1999, Déchaine and Wiltschko 2002), at least the Finnish and English examples ((35) and (31)) appear more like differential object marking, a syntactic phenomenon, than a purely morphological issue. In considering the limits of the adposition-case connection in the following chapters, I conclude that such differential case marking phenomena concern cases relating to the determiner layer and lower functional projections of the noun, rather than the PP layer.

Consistently uninterpretable features Structural Case is the only one of the inventory of features which is never interpretable. Carstens (2000) in her discussion of the agreement mechanisms in Chomsky (1995), includes a table relating uninterpretable features to their interpretable counterparts (38).

(38) Corresponding features (Carstens 2000:325)

Feature	Interpretable	Uninterpretable
ϕ	D(P), N(P)	agreement
Case	inherent	structural
category	intrinsic	selected

According to (38), ϕ -features (such as number) are interpretable on the noun, but not on the item agreeing with the noun, and categorial features are interpretable on the item belonging to a specific category, but uninterpretable on the item subcategorising for that category. For example a nominal feature [N] is interpretable on a noun, but not on a verb selecting it. Case, however is an exception in this matter. Inherent and structural Case features do not form corresponding pairs. Rather, uninterpretable structural case features on

the noun, such as [Nominative] and [Accusative], correspond to uninterpretable features [Nominative] on T and [Accusative] on light *v*, and interpretable Cases on the noun, such as [Dative], correspond to interpretable features on the verb. This is not in itself a counterargument for the approach to Case, but it does make it appear somewhat anomalous amongst the inventory of features.

I suggest instead that Case at the syntactic level is not a separate feature but is dealt with as a categorial feature, being subsumed under categories already clearly necessary for a complete account of the noun phrase (P, D and ϕ). Thus, like other nominal features, the feature is interpretable on the noun and uninterpretable on the verb or other corresponding predicate.

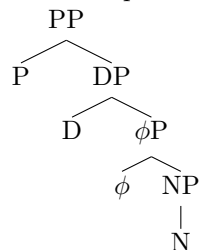
Changes in recent approaches to the theoretical architecture make Case as a separate feature seem less important to the working of syntax. Chomsky (2001) introduces several changes, including the elimination of the idea that Case features drive movement. Instead categorial features and EPP features are seen as the motivation for movements of arguments. Thus a subject moves not to check nominative Case but to check a [D] feature on T. The elimination of the Case-movement connection is particularly significant because it means that other aspects of the syntax do not depend on Case. This leaves Case Theory the task of explaining phenomena that are purely associated with the morphological manifestations associated with case on nouns.

To summarise, there are several inconsistencies in the theory of Case and disagreement arises as to which component of the grammar is responsible for different aspects of the phenomenon. In this dissertation I aim to look at the full range of morphological cases in paradigms such as those in (1)-(6) and to investigate how they should be treated at the syntactic level.

1.3.2 Proposal

I propose a decomposition of cases into different syntactic structures. Different types of case spell-out different functional projections of the noun, according to the structure in (39).

(39) Full noun phrase structure



Many of those cases with more peripheral meanings, expressing spatial relations or semantic roles, spell out P heads. The cases which appear to take part in the types of differential case marking discussed tend to have a link with definiteness or specificity, attributes characteristically associated with determiners, and sometimes with ϕ -features. I therefore argue that these are associated with the D and ϕ projections. Specifically, cases such as genitive and partitive will

be associated with the D layer (like different values of definite and indefinite determiners) and accusative variably across different languages with D and with ϕ . Nominative is given no special status in the syntax: a noun phrase ‘in the nominative case’ will be analysed as spelling out DP if there is a determiner present, or NP if there is no determiner or independent reason to believe in the presence of a DP projection in the context in question. The conclusion is that there is nothing special about cases at the syntactic level that makes them different from their analytic counterparts, adpositions and determiners.

Cases clearly do differ from adpositions and determiners in their surface form, attaching directly to the noun, rather than forming independent words. I argue that this is related to the phonological content of the lexical items, phonologically smaller elements being more likely to be phonologically dependent and therefore be spelt out as cases. Thus the surface form of P, D and ϕ as independent words or as morphological changes on the noun is something that is determined at the point of vocabulary insertion, after spell-out. The syntax is oblivious to the status of an item as an analytic marker, an adposition or article, or a synthetic marker, generally treated as case.

The arguments in this dissertation focus largely on Hungarian and Finnish for detailed argumentation and exemplification of the mapping from syntax to morphology that would result in paradigms of syntactically non-equivalent objects (4)-(5). In Chapter 5 I argue that the same analysis of cases as members of the categories P, D and ϕ can also be applied to other case systems, providing consistent treatment of the syntax underlying this area of nominal morphology.

1.3.3 Terminology

The word ‘case’ is used in many different ways in the literature, referring to morphological, syntactic and semantic notions, so that the distinctions are often blurred. Here I define several different terms which I propose to use when talking about the relevant phenomena, making a distinction between the levels of morphology, syntax, and semantics. I use *syntax* to refer to processes in the pre-spell-out narrow syntactic derivation, and *morphology* to refer to those between spell-out and PF. Thus morphology, rather than referring to matters of derivation and inflection in general, refers to the level of vocabulary insertion, where specific affixes are chosen in accordance with the head, and the status of an item as an independent word or an affix is determined.

Morphology I use the term **case** to refer to the morphological changes to the noun exemplified by the paradigms in (1)-(6). The manifestations of case considered in the dissertation are mainly suffixes (such as Hungarian *-ban/-ben*, ‘in’), but I count other morphological changes (prefixes, infixes, stem changes) as part of the same phenomenon. The term **word** is contrasted with case, used to refer to a phonologically independent item. In the use of the terms **adposition** (and specifically preposition or postposition where appropriate) I conform as closely as possible to the common understanding of these terms, referring to words such as *in*, *on*, *to*, and *for* in English. I recognise that the distinction between cases and words is sometimes blurred by clitic adpositions,

such as those found in Slavic languages. However these terms should serve in most contexts, and where necessary I specify the status of an item in more detail in the text.

Terms for individual cases (nominative, accusative, genitive, dative, etc.) are used as far as possible in accordance with conventions in the literature, and are used to refer to morphological manifestations of case (suffixes in the detailed studies presented, but potentially collections of suffixes in languages with declensions, such as Latin), without any intended reference to the usage of the case. Thus Hungarian *-nak/-nek* and Latin *-o/-ae/-i* will be referred to as dative by convention and without consideration as to whether a recipient is involved in interpretation, or whether the cases in the two languages are semantically equivalent. Nominative, although it will be analysed as absence of case-specific structure, will still be termed nominative and glossed NOM in examples for ease of reference. For Hungarian, the pairing of particular case terms with particular suffixes remains as in (4). For Finnish, where the terminology and analysis are more controversial, a detailed account of my approach is given in Chapter 4, the aim being to pair one case name with one suffix. Clearly the cross-linguistic comparability of case names such as genitive and dative is difficult to establish and raises many interesting questions. For the purposes of this dissertation, however, the fine semantic content will not be considered in detail and I confine myself to determining the syntactic category of each item and its mapping to morphology. In practice, conventional nomenclature will therefore be sufficient for most cases.

Syntax I follow the use of categorial labels in the Principles and Parameters framework, such as N(oun), V(erb), A(djective), T(ense) and C(omplementiser). P is treated as a category in the extended projection of the noun, above N (as in Grimshaw 2000). I argue that the syntactic category P can be spelt out either by cases or by words (or indeed by morphological categories of mixed status such as clitics). In such contexts, I talk about **P-cases** and **P-words**. Hungarian *-ban/-ben* ('in') will be considered an example of a P-case. D is the category of articles, including words within the noun phrase and also morphological changes within the noun that affect the interpretation with respect to definiteness or specificity. In addition to the words commonly considered to be articles, **D-words** in the terminology developed here, I also reclassify some of the affixes commonly considered to be cases as the spell-out of the category D. These are termed **D-cases** accordingly. Examples of D-cases in the analysis to be presented include Hungarian accusative *-t*, and Finnish partitive *-a/-ä* and genitive *-n*. The word-case distinction roughly corresponds to the distinction Blake (1994) draws between analytic and synthetic case, the letter in each term denoting the syntactic category I propose in my analysis, and the word denoting its morphological status.

Semantics Treatment of the meanings of cases is coarse and reflects the view that syntax is minimally sensitive to semantics, building the derivation on the basis of feature bundles and without reference to the core lexical content of words. The functional categories of the noun are thus characterised by broad

semantic generalisations. The category ϕ relates to feature values singular and plural, and may also include numerals and other quantity-related material. D is related to definiteness and specificity. P is related to spatial expressions and other semantic roles, such as instrument (English *with*, for example) and agent (English *by*). I talk about **semantic roles** rather than θ -roles when referring to the category P because θ -roles have more specific associations with assignment and argument structure of the predicate. When I mention semantic role I deliberately avoid making any claim about θ -role assignment or the way in which the noun phrase satisfies the argument structure of the predicate, intending only to refer to the type of role expressed by the P-word or P-case. For example, the Hungarian instrumental case may variably express the semantic role of the instrument or of the comitative. More details on the view I adopt regarding θ -roles and their assignment appear in the following section.

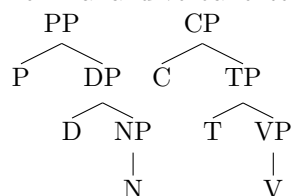
1.3.4 Theoretical apparatus

This section addresses some topics which are tangential to the main thesis about case, but which are necessary for complete analyses of the data to be treated. The central point of the thesis is that certain cases and adpositions that have previously been assumed to belong to different part of speech categories, on the basis of their different forms, in fact belong to the same range of categories, the different forms resulting from differences in their morphophonological status. Although I do not have theories to present on matters of the syntactic architecture, or the establishment of word order and agreement, it is necessary to take a stance on these points in order to present a complete analysis of the mapping of case phenomena from syntax to morphology. In the following subsections, I outline my assumptions about the extended projection of the noun, θ -role assignment, the lexical or functional status of categories, the syntax-morphology interface, word order, and agreement.

Extended projections

I adopt Grimshaw (2000)'s view that the noun is a lexical category at the core of the noun phrase, projecting an NP, and that the DP and PP projections are extended projections of the noun, such that broad parallels can be drawn between PP and DP in the nominal extended projection and CP and TP respectively in the verbal extended projection, as illustrated in (40).

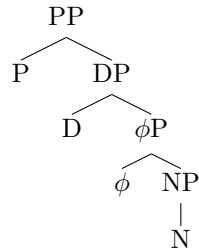
(40) Nominal and verbal extended projections (Grimshaw 2000)



(40) shows only the bare bones of the projections, which may be further fleshed out with other intermediary projections such as *v*P. Importantly for my anal-

ysis, there will be a further projection ϕ P in the noun phrase, as in (41), in accordance with Carstens (2000).

(41) Full nominal projection under my analysis



All these categories have nominal features, marking them as part of the extended nominal projection, as in Grimshaw (2000). In keeping with Chomsky (1995) I include no Agr(eement) projections in the structures assumed. Mechanisms of agreement are discussed on page 39. The category P is thus explicitly associated with the noun phrase and separated from the verb phrase. The close association with the noun reflects the view that adpositions form the same category as cases, which are uncontroversially associated with the noun because of their surface position within the phonological word of the noun.

The view of the nominal extended projection in (40) makes a change to the standard view of the noun phrase and particularly the category P in Principles and Parameters approaches, relating to the consistency of the noun phrase structure and the lexical or functional status of the category P, discussed on page 32. DP is standardly viewed as the highest and most complete structure of the noun phrase. Under the present approach a noun phrase may variably be PP, DP, ϕ P or NP. This view is not without precedent. Cardinaletti and Starke (1999) and Déchaine and Wiltschko (2002) argue for different analyses of pronouns in which different types of pronouns (weak, strong and clitic) spell out different levels of nominal structure, though they make no specific claims about the category P. Even within more standard approaches claims are sometimes made to the effect that certain languages have no determiners. Franks (1995:13) and Corver (1990), for example, claim that noun phrases in many Slavic languages lack evidence for a DP projection in many contexts. I suggest in Chapter 4 that the genitive and accusative in certain Slavic languages may provide evidence for a DP projection. For now the important point is that I adopt the view that noun phrases may have variable structure (PP, DP, ϕ P and NP), the development of the analysis owing a great deal to the ideas presented in Déchaine and Wiltschko (2002). This has some consequences for θ -role assignment, as discussed in the following subsection.

The view of the nominal extended projection here requires a few other adjustments to the standard view of the noun phrase and particularly the category P in Principles and Parameters approaches, relating to the status of the noun phrase as a predicate or argument, and the lexical or functional status of the category P, discussed on page 32.

Θ-roles

The notion θ -role is important in the establishment of relations between a predicate and its arguments. In *Principles and Parameters* it is claimed that the predicate (verb, noun, adjective or adposition) assigns a θ -role to each of its arguments. Nominal arguments are assumed to be DPs (Szabolcsi 1987; 1994, Stowell 1989), and it is therefore DP to which a θ -role is assigned. Given the discussion above regarding the variability of the structure of complete noun phrase between PP, DP, ϕ P and NP, the extended projection approach raises questions about the category to which a θ -role is assigned, and the status of the different nominal layers as predicates or arguments. It also raises questions of a mapping from θ -roles to specific cases.

Argument or predicate status of the nominal projections Since I assume strictly that the PP, when present, is also in the extended projection of the noun, and since the full noun phrase in different contexts will vary between PP, DP, ϕ P and NP, the θ -role must be assigned to the noun phrase as a whole, the highest nominal projection present, or the lexical noun. The last option is ruled out under the view that some nominal items, including certain pronouns in some languages, involve only a functional projection, with no N in the structure. Such pronouns must presumably still receive θ -roles. Déchaine and Wiltschko (2002) claim that NP is a predicate, DP an argument and an intermediate category which they term ϕ P (corresponding to ϕ P in my structure) will exhibit mixed behaviour. Under their approach it seems reasonable to assume that the θ -role is assigned to the highest nominal projection when the noun is in an argument position. Note that some pronominal items (weak and clitic pronouns) are argued in both Déchaine and Wiltschko (2002) and Cardinaletti and Starke (1999) not to be in argument positions. Déchaine and Wiltschko's approach is outlined in detail in Chapter 4.

The category P is sometimes treated as predicate or semi-predicate. Locative Ps, for example are sometimes seen as predicates, because they can be found in constructions such as (42), and because of their binding behaviour, since they do not require a reflexive pronoun object to be coreferenced with the subject (Reinhart and Reuland 1993) (43).⁶

⁶Opinions are divided on which adpositions can be considered predicates. Botwinik-Rotem (to appear) shows that Hebrew examples of the type in (42-b) do not fulfil the binding criterion illustrated in (43). Botwinik-Rotem further argues that the predicative nature of these words stems from an empty nominal category DP within the PP projection, and not from the adposition itself.

- (42) Locative Ps as predicates
- a. John was in the garden.
 - b. The paper is about linguistics.
- (43) Binding into locative Ps in Hebrew (Botwinik-Rotem to appear:5)

Bart_i sam et ha-sukarya leyad-o_i / *leyad acmoi.
 Bart put ACC DEF-candy near-him_i / near himself_i

‘Bart put the candy near him_i / himself_i.’

In other situations adpositions are seen as supplying the θ -role when the verb or other predicate is somehow deficient, as in (44).

- (44) Deficient verb supplemented with a semi-predicative preposition
- a. John depends **on** Mary.
 - b. Peter tried to think **of** an example.

In contrast with this view of Ps as predicates, and consistent with the extended projection approach, I assume that PP, when present, is the outer edge of the noun phrase and thus an argument. The category P, even when apparently contentful, does not *assign* a θ -role to the noun, but rather *expresses* the noun’s *semantic role*. At times this will be an oversimplification, but the status of the different nominal levels as arguments and predicates, and the issue of θ -assignment, is not the focus of this study. The reader is referred to Botwinik-Rotem (2004) for a far more nuanced analysis of these issues with respect to the category P, maintaining the view that the category is consistently functional.

Mapping between θ -role and case In Principles and Parameters inherent Case is assumed to be associated with θ -roles. As noted in Belletti (1988), there are at least two possible ways of understanding the relationship between θ -roles and the cases actually seen on the nouns. Either the case seen is the morphological manifestation of the underlying inherent Case, different languages having different inventories of such Cases, or the morphological case is determined independently of the underlying inherent Case and related θ -role and does not reflect syntactic Case at all (as argued in McFadden 2004).

If the case seen is the manifestation of underlying inherent Case, a direct reflection of θ -role, then this raises a problem, as many formal approaches to θ -roles define relatively restrictive inventories of roles. Reinhart’s Theta System (Reinhart 2002) is taken here for the purposes of exemplification, but see also Fillmore (1968), Jackendoff (1990) for alternative restrictive inventories. The Theta System rests on two binary features (45): $[\pm c]$ states whether or not an argument causes change, and $[\pm m]$ states whether or not the mental state of the argument is involved. This gives rise to the set of theta clusters outlined in (46).

(45) Binary features in the Theta System (Reinhart 2002)

- [±c] (does/does not cause change)
 [±m] (does/does not involve the mental state of the argument)

(46) Theta clusters

- [+c+m] (agent)
 [+c-m] (instrument)
 [-c+m] (experiencer)
 [-c-m] (theme or patient)
 [+c] (cause)
 [+m] (sentient)
 [-m] (subject matter/locative source)
 [-c] (goal or recipient)

The descriptions of the theta clusters given in parentheses on the right are informal characterisations of the types of role carried by an argument that is assigned such a cluster. For full motivations of the clusters, see Reinhart (2002). Such an inventory might not be a problem for smaller case systems, with eight or less cases, since syncretism could be argued to take place between certain members of the list. It is a problem, however, for explaining case distinctions in larger systems, such as those of Hungarian, Finnish or Lezgian, where there are clearly many more cases (even excluding nominative and accusative on the conventional assumption that they are structural Cases) than there are θ -roles, meaning that something more must be at work to determine the case seen on the noun. While it is clear that specific θ -roles are more or less regularly associated with specific cases in Hungarian, the same cases have other uses, and many cases exist with relatively stable meanings which fall outside the list in (45). (47)-(51) illustrate apparent links between certain roles and cases for Hungarian: dative *-nak/-nek* often appears on benefactives/goals [-c] (47) or experiencers [-c+m] (48), instrumental *-val/-vel* on instruments [+c-m] (49), illative *-ba/-be* on goals [-c] (50), and elative *-ból/-ből* on sources [-m] (51).

(47) Dative on [-c] benefactives/goals (Hungarian)

- a. Csillá-**nak** adtam egy könyv-et.
 Csilla-DAT give a book-ACC
 'I gave a book to Csilla.'
 b. Gyulá-**nak** két húga van.
 Gyula-DAT two sister be
 'Gyula has two sisters.'

(48) Dative on [-c+m] experiencers (Hungarian)

- a. János meg-mutat-ja Nórá-**nak** a fénykép-ek-et.
 János.NOM PV-show-3SG Nóra-DAT the picture-PL-ACC
 'János shows the pictures to Nóra.'

- b. Fel-olvas-t-am a level-ek-et az apám-**nak**.
 PV-read--PST-1SG the letter-PL-ACC the father-DAT
 ‘I read the letters to my father.’
- (49) Instrumental on [+c-m] instruments (Hungarian)
- a. Inkább ceruzá-**val** ír-ok, mint tol-lal.
 rather pencil-INSTR write-1SG than pen-INSTR
 ‘I prefer to write with a pencil than with a pen.’
- b. Busz-**szal** vagy metró-**val** menjünk?
 bus-INSTR or metro-INSTR go.1PL
 ‘Shall we go by bus or by metro?’
- (50) Illative on [-c] goals (Hungarian)
- a. Imre el-men-t Olaszország-**ba**.
 Imre.NOM PV-go-PST.3SG Italy-ILL
 ‘Imre went to Italy.’
- b. Zsuzsa be-tett egy tolla-t a zsebé-**be**.
 Zsuzsa.NOM into-put.PST.3SG a pen-ACC the pocket-ILL.
 ‘Zsuzsa put a pen into her pocket.’
- (51) Elative on [-m] on sources (Hungarian)
- a. Ki-tép-t-em egy lapo-t a füzet-em-**ből**.
 PV-tear-PST-1SG a page-ACC the notebook--1SG-ELAT
 ‘I tore a page out of my notebook.’
- b. Melyik város-**ből** jössz?
 which city-ELAT come.2SG
 ‘Which city are you coming from?’

In other contexts these suffixes can have a number of other functions. For example, the dative *-nak/-nek* can mark the possessor, and the instrumental *-val/-vel* can have a comitative function. An example of a case expressing a role that seems not to fall within the Theta System appears in (52). The Theta System only partially accounts for spatial marking, with the [-c] cluster representing a goal, and [-m] a source. The only suitable cluster available for a location, however, is [-c-m], making a location indistinguishable from the cluster for patient or theme. A distinct location role is necessary in order to deal with sentences such as (52), where the verb selects both a location and a theme.

- (52) Location and theme as distinct arguments (Hungarian)
- János a garázs-**ban** tart-ja a kocsijá-**t**.
 János.NOM the garage-INESS keep-3SG the car-3SG-ACC
 ‘János keeps his car in the garage.’

It therefore appears that the claim that inherent Case is associated with θ -roles is insufficient to explain the presence of morphological case, at least on the restrictive view of θ -roles set out in the Theta System. Richer inventories of semantic roles have also been proposed. Beard (1995), for example, following Hjelmslev (1935/37), proposes many more different roles, effectively attempting

a comprehensive coverage of the morphological case distinctions made across different languages. Beard's emphasis, however, is on the semantic distinctions made in the morphology, and such a broad inventory seems to go beyond what is useful for capturing syntactically relevant distinctions. For example, it is relevant to syntax whether a case or adposition expresses direction or location, but not specifically what direction (*to*, *at*) or location (*in*, *on*) is expressed. Thus the idea of a straightforward mapping from a given θ -role to a given inherent Case to a given morphological case seems unlikely because of the many mismatches between putative θ -role inventories and actual case inventories.

Furthermore θ -roles are assigned to arguments of a predicate. Adverbial phrases are normally not assumed to be part of the argument structure of the predicate. However, nouns in adverbial phrases regularly have morphological case in many languages, and the possible cases emerging in adverbial phrases include many of the same cases that appear on argument nouns. (53)-(54) show that certain Hungarian cases can appear both on obligatory arguments (the (a) sentences) and on adverbs (the (b) sentences).

(53) Inessive case on adverbials and arguments (Hungarian)

a. Inessive on argument

Két-emeletes ház-**ban** lak-om.
two-storey house-INESS live-1SG
'I live in a two-storey house.'

b. Inessive on adverbial noun phrase

Géza olvas a kert-**ben**.
Géza.NOM read.3SG the garden-INESS
'Géza is reading in the garden.'

(54) Elative case on adverbials and arguments (Hungarian)

a. Elative on argument

A gyerek-ek ki-futottak a terem-**ből**.
the child-PL.NOM out-run.3PL the classroom-ELAT
'The children run out of the classroom.'

b. Elative on adverbial noun phrase

Csak kíváncsiság-**ből** kérdez-t-em.
only curiosity-ELAT ask-PST-1SG
'I only asked out of curiosity.'

Thus the distribution of cases also does not match that of θ -roles, again constituting a problem for a theory that claims a mapping between the two.

Instead it seems that the morphological case is independent of the θ -role and the inherent Case, as argued in McFadden (2004). If an independent mechanism is needed in order to determine the case, as indicated here, then that mechanism could equally be responsible for all appearances of case on the noun. I will have little more to say about θ -roles or inherent case. I assume that there are separate issues and that morphological case specifications are established independently of these matters.

Lexical vs functional status

The decision to locate the category P in the extended projection of the noun also has consequences for its status as a functional or lexical category, and thus for the notion of functional and lexical categories more generally. The category P is standardly treated as one of the four lexical categories, along with N, V, and A. A growing literature on adpositions finds functional projections belonging to P in analogy with the verbal domain, including light *p*P projections (van Riemsdijk 1990), and even CP projections (den Dikken 2006a).

The status of the category P as lexical or functional has been much debated. Many languages seem to exhibit a two-way split amongst adpositions, some appearing more lexical and some more functional. This is often clearly linked to diachronic relations with lexical categories. However, in some languages it is possible to identify splits in behaviour within the category of adpositions independent of the relation with other lexical or functional categories. This has led to some debate on whether such a split should be counted as a categorial divide itself (cf. Zwarts 1997 on Dutch). The controversy stems from the mixed behaviour of the category with respect to common diagnostics for functional or lexical status. Typical assumptions on the behaviour of lexical and functional categories are outlined in the following table (55), drawn from diagnostics in Corver and van Riemsdijk (2001).

(55) Characteristics of lexical and functional categories

Lexical categories	Functional categories
semantically contentful	grammatical function
open membership	closed membership
free-standing words	phonologically dependent
variable <i>c</i> -selection	strict <i>c</i> -selection
θ -mark complement	do not θ -mark complement
separable from complement	inseparable from complement
license empty categories	cannot license empty categories

Verbs, nouns and adjectives emerge as clearly lexical on the basis of such diagnostics, and tense and determiners as clearly functional. By contrast, it is not simple to give a consistent classification of the category P on this basis. On the one hand, Ps appear to form a very closed class in certain languages. Tzeltal (Levinson 1996:185) and Oro Nao (Everett and Kern 1997:5), for instance, are said to have only one preposition. On the other hand many Indo-European languages have much larger inventories of adpositions, albeit still considerably smaller than the inventories of nouns, verbs and adjectives in the same languages. Adpositions also vary enormously in terms of semantic content, from comparatively vacuous, morphologically simple Ps such as *of* and *for* to comparatively contentful, morphologically complex Ps such as *into*, *behind*, *beside*.

Following Emonds (1972) and Jackendoff (1973), it has been standard to treat the category P as a lexical category. Their apparent status as case assigners (56) is seen as evidence for this.

- (56) Case assignment in PP
- a. English
to me/him/her/them/*I/*he
 - b. German
auf dem Berg
on the.DAT mountain
'on the mountain'
 - c. Latin
in urbe
in city.ABL
'in the city'

Other recent approaches argue that P should rather be considered a functional category, focusing on the differences between P and the other three lexical categories, N, V, and A. Grimshaw (2000) draws full parallels between the verbal extended projection and that of the noun, proposing that P in the nominal extended projection corresponds to C in the verbal projection. Baker (2003) dismisses P from the inventory of lexical categories based on incorporation facts. He further notes that the category P differs from N, V, and A in not having clear derivational morphology in any language. English nouns, for example can be formed with *-ation*, verbs with *-ise* and adjectives with *-able*, but P-forming suffixes of this kind seem not to exist. Maintaining the position that P is a uniformly functional category, Botwinik-Rotem (2004) accounts for the diversity in functions of Ps by defining three different types: P_R specifies a particular semantic relation of the noun, P_C has a Case checking function, and P_{Pred} has predicate status.

Finally some researchers, faced with the diversity of the category P, opt for a mixed analysis. Van Riemsdijk (1990) proposes that there are both lexical and functional members of the category P, making use of the notion light *p*, by analogy with light *v*, to account for German circumpositions such as those in (57).

- (57) German circumpositional phrases (van Riemsdijk 1990:236)
- a. auf dem Berg oben
on the.DAT mountain on.top
'on top of the mountain.'
 - b. im Tal unten
in.the.DAT valley below
'down in the valley'

Zwarts (1997) proposes a more elaborate division, setting Dutch prepositions along a graded scale from the most lexical to the most functional. Others invoke the notion of semi-lexicality, as outlined in Corver and van Riemsdijk (2001). Zeller (2001), for example, defines a semi-lexical head as a morphologically complex element consisting of a lexical node and a functional suffix. He claims that German and Dutch postpositions are semi-lexical elements, derived from lexical prepositions via suffixation of a zero-operator, which alters the thematic

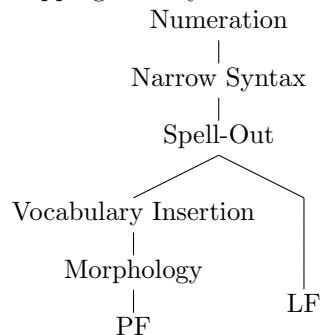
properties of the P-element. Thus the different camps remain divided in their classification of Ps as functional or lexical, the different standpoints often reflecting the different languages or types of P studied and implicit assumptions about the boundaries of the category.

Grimshaw's (2000) approach to extended projections puts P firmly in the realm of functional categories associated with the noun. On the other hand prepositions in English exhibit many characteristics of lexical categories according to (55), having detailed semantic content (e.g. *behind, in front of*), and relatively open membership compared to categories such as determiners and ϕ -features. They also appear as free-standing words and can be stranded, thus being separable from their core arguments. In situations where several diagnostics are relevant for the classification of an item, as in (55), it is hardly surprising that some categories exhibit mixed behaviour. Elaborating the PP to include further P-related categories (a common trend in much recent literature treating P as a lexical category) is not necessarily in conflict with the idea that P is a functional category. It is increasingly recognised that the category C, which is uncontroversially considered a functional projection of the noun, has a more elaborate structure. For the purposes of the present study little rests on the lexical or functional status of P or the other categories involved.

Modularity and the syntax-morphology interface

My analysis works along the lines of Distributed Morphology (Halle and Marantz 1993). The syntax is assumed to manipulate feature bundles without reference to the deeper semantic content or access to the phonological forms of those bundles. Vocabulary items, pairings of features and forms, are inserted after the narrow syntax, as in the T-model in (58). Word boundaries are determined after vocabulary insertion, in the morphology, those items that have phonologically weak material inserted being dependent on adjacent items and forming a phonological word with them.

(58) Mapping from syntax to morphology



Although my approach broadly follows Distributed Morphology, I do assume the use of part of speech category labels for determining the location of insertion of a given vocabulary item. Thus nouns will be inserted under N because of their category feature N, determiners under D because of their D features, and so on. The use of categorial labels serves for ease of reference. It may be

possible to remove these and rework the word-building mechanisms purely in terms of roots and other features for a stricter approach.

I follow work such as Weerman and Evers-Vermeul (2002) and Neeleman and Szendrői (2007) in assuming that spell-out of non-terminal nodes (XP) is possible. Specifically, I assume that agglutinative morphology, such as that found in Hungarian and Finnish, is indicative of spell-out of terminal nodes, whereas fusional morphology, such as that found in Indo-European languages, is indicative of spell-out of XPs.

Crucially, unlike in Distributed Morphology, where case is assumed to be a dissociated morpheme inserted after the syntax (Embick 1997), nouns with case under my proposal have the same syntactic structure as nouns with adpositions or determiners (depending on the type of case in question). To give an example, I analyse the Finnish and Latin words in (59) as having the same syntactic PP structures as their English translations.

- (59) Syntactic PPs spelt out in different ways
- a. Finnish PP
 - talo-lta
 - house-ABL
 - ‘from the house’
 - b. Latin PP
 - Roma
 - Rome.ABL
 - ‘from Rome’

I assume that the underlying structures are all PPs. English involves simple spell-out of the terminal nodes, P as *from*, D as *the*, and N as *house/city*. Finnish involves spell-out of the terminal nodes N as *talo* and P as *-lta/-ltä* (the two possible ablative forms dependent on vowel harmony). A further level of morphophonological changes at PF arranges the two items as part of one phonological word because the ablative is phonologically weak, selecting the correct form for vowel harmony with the noun. The Latin ablative form, on the other hand, involves the spell-out of PP as a unit, rather than spell-out of the separate terminal nodes. Setting aside for now more detailed differences in the internal structure of Finnish and English PPs, this serves to show in broad terms that the syntactic structure can be equivalent in the face of differing surface forms.

Word order

Many conceivable permutations of word and morpheme ordering within the noun phrase are attested cross-linguistically. Adpositions and determiners are found preceding and following the noun, and items conventionally analysed as cases are found as prefixes, suffixes, infixes and various types of stem changes. Some of the ordering variations are illustrated in (60)-(63).

- (60) Adpositions preceding and following the noun
- a. Preposition (English)
to the house
 - b. Postposition (Hungarian)
 - a ház mögött
the house behind
'behind the house'
- (61) P-affixes preceding and following the noun
- a. P-prefix (Krongo, Reh 1985)
à-káaw
DAT-person
'to the person'
 - b. P-suffix (Hungarian)
 - a ház-ban
the house-INESS
'in the house'
- (62) Determiners preceding and following the noun
- a. Determiner preceding the noun (English)
the house
 - b. Determiner following the noun (Ewe, Heine et al. 1991:65)
xp á
house DEF
'the house'
- (63) D-affixes preceding and following the noun
- a. D-prefix (Hebrew Botwinik-Rotem 2004:4)
ha-sefer
DEF-book
'the book'
 - b. D-suffix (Norwegian, Giusti 2002)
gutt-en
boy-DEF
'the boy'

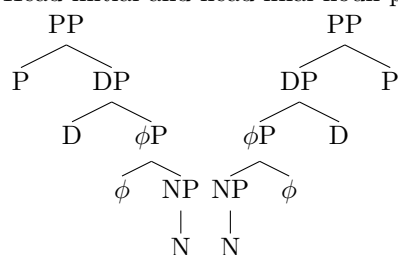
Dryer (2005b:210) notes that case is coded by tone in several African languages, such as Maba (Maban, Nilo-Saharan, Chad) and Shilluk (Nilotic, Sudan), and by stem changes in the noun in Dinka and Nuer (Western Nilotic, Sudan). Other languages make use of mixtures of prefixes and suffixes for this purpose, as in Chukchi (eastern Siberia, Russia) and Mangarrayi (Northern Territory, Australia).

Suffixes appear to be significantly more common than prefixes, and postpositions are somewhat more common than prepositions (Cutler et al. 1985, Dryer 2005a;c). Indeed case prefixes seem to be particularly rare (Dryer 2005b). I do not take it to be the task of syntactic analysis to explain such trends: rather, syntax should be able to account for the fact that all of these are possible. See

Cutler et al. (1985) for an account of the preference for suffixing on the basis of ease of processing.

Various mechanisms exist for deriving the order of words and morphemes in syntax and morphology, and it goes beyond the scope of the present work to assess their relative merits in any detail. In the tree notation used I assume, in line with van Riemsdijk (1990), that the ordering of specifiers, complements, and heads in projections may vary, as in (64).

(64) Head initial and head final noun phrases



The alternative, assuming a strict specifier-head and head-complement order, in line with Kayne (1994), though conceptually attractive, requires much argumentation which has little to do with the main point here, to demonstrate the link between certain cases and the categories P, D and ϕ . Although postpositional word order, for example, could be achieved by the movement of the DP to the specifier of PP in a strictly specifier-head-complement ordering, it is not clear what would motivate such movement. If it is assumed that movement is motivated by EPP features then it has no bearing on the status of the cases argued for here.

In Chapter 2 I discuss Hungarian postpositions and cases. Hornstein et al. (2005) claim that agreement patterns in which agreement is richer in subject-verb order than in verb-subject order constitute evidence for spec-head-comp ordering, on the basis that rich agreement is established in spec-head configuration. By analogy they suggest that the Hungarian data provide evidence for strict spec-head-comp ordering, because certain postpositions capable of agreeing with their pronominal object are unacceptable in a position preceding the noun (65), whereas those that can sometimes precede the noun never exhibit agreement (66). (65) shows a postposition inflecting when it has a pronominal object (a), in its normal position following a nominal object in (b) (which is clearer than with the pronoun because there is no agreement with the full noun), and its unacceptability preceding the noun (c).

(65) Inflecting postpositions do not prepose (Hungarian)

- a. Inflecting postposition
 (én) mellett-em
 1SG near-1SG
 ‘near me’

- b. Normal position of inflecting postposition

János mellett
 János.NOM near
 ‘near János’

- c. Failure to precede the noun

*mellett János
 near János.NOM
 ‘near János’

By contrast, (66) shows a postposition of the type that does not inflect even with a pronoun (a) in its neutral position following the noun (b), and preceding the noun with an emphatic interpretation (c).

- (66) Non-inflecting postpositions can prepose for emphasis (Hungarian)

- a. Non-inflecting postposition

(én) vel-em együtt
 1SG INSTR-1SG together
 ‘with me’

- b. Neutral position of non-inflecting postposition

János-sal együtt
 János-INSTR together
 ‘together with János’

- c. Preceding the noun with emphatic interpretation

együtt János-sal
 together János-INSTR
 ‘together with János’

There are two main objections to Hornstein et al’s claim. Firstly, the Hungarian evidence is weak, since even the non-inflecting postpositions of (66) are standardly postpositions, not prepositions (contrary to the presentation in Hornstein et al. 2005), and fail to agree with the pronoun, whether they appear before or after it. Secondly, it is not true that prepositional agreement is unattested cross-linguistically. Several Celtic languages, including Welsh, Irish and Breton, have prepositions which inflect to agree with the pronominal object, as illustrated for two Welsh prepositions in (67).

- (67) Welsh prepositional agreement paradigms

	dros	drwy
	‘over, for, on behalf of’	‘through, by means of’
1SG	drosta i	drwydda i
2SG	drostat ti	drwyddat ti
3SG.M	drosto fe	drwyddo fe
3SG.F	drosti hi	drwyddi hi
1PL	droston ni	drwyddon ni
2PL	drostoch chi	drwyddoch chi
3PL	drostyn nhw	drwyddyn nhw

Since the agreement in this paradigm makes all the distinctions that the pronominal paradigm makes in terms of person, number and gender, it can hardly be argued to be impoverished agreement, resulting from the object remaining in complement position. A thorough survey of Celtic prepositions goes beyond the scope of the present study. However, at first glance this appears to be agreement of a similar status to that of the Hungarian postpositions, in many respects similar to verbal and possessive agreement in the languages involved, and affecting prepositions with pronominal but not full nominal objects. In order to rescue the idea that agreement is associated with an overtly reached spec-head configuration, one would have to show that the Celtic prepositions were different from the Finno-Ugric postpositions, showing evidence for a further movement step beyond movement for agreement, in order to bring the preposition to precede the noun. In the absence of such evidence, the Hungarian postpositions thus appear not to provide compelling evidence for universally head initial PPs. Agreement, discussed in the following section, is now standardly assumed to occur without necessitating a specifier-head configuration when weak features are involved, so this would no longer be a motivation to assume movement. In the absence of such a motivation, I opt for the simplest structures possible, assuming that the pronouns have weak agreement features and remain in their base complement position.

To sum up, for the purposes of describing the structures of case marked noun phrases to be analysed in the coming chapters, I adopt structures with variable head directionality. The alternative, opting for strict spec-head-comp order, should be equally viable, but the present analysis does not point to obvious motivation for the necessary movements to derive the correct word order.

Agreement

I use the term *concord* for agreement of an item in a specifier position (such as a determiner, adjective or possessive pronoun) with the head (a noun), as in (68), and the term *agreement* such as subject-verb agreement, where the head can be said to agree with the specifier.⁷

- (68) Concord
- a. Determiner-noun concord (German)

der	Vater	/	die	Mutter
the.M.NOM	father	/	the.F.NOM/ACC	mother
‘the father’ / ‘the mother’				
 - b. Adjective-noun concord (Latin)

bono	servo
good.M.ABL	slave.M.ABL
‘by/with/from the/a good slave’	

⁷See Corbett (2003) and Corbett (2006:5-7) for a survey of the widely differing and often contradictory uses of these terms and discussion of the prospects for standardising the terminology.

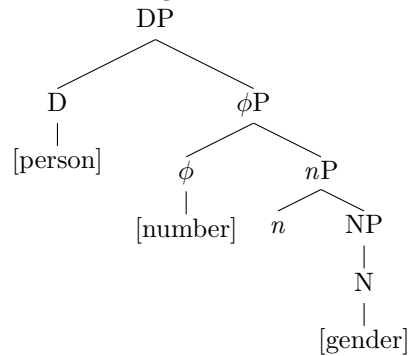
- c. Possessive pronoun concord (Latin)
- | | | | | |
|--------------------------|----------|---|-------------|----------|
| dominus | meus | / | mensa | mea |
| master.M.NOM | my.M.NOM | / | table.F.NOM | my.F.NOM |
| ‘my master’ / ‘my table’ | | | | |

I use the term *agreement* to refer to other types of agreement phenomena, such as the agreement of a verb with its subject or a possessed noun with its possessor (69).

- (69) Agreement
- a. Subject-verb agreement
The child[SG] is[SG] good. / The children[PL] are[PL] good.
 - b. Possessor-possessum agreement (Hungarian)
az én ház-am
the 1SG house-1SG
‘my house’

The approach to agreement and concord presented here is based on Carstens (2000). According to Carstens (2000) grammatical gender is a feature of the noun itself, number is in ϕ P, and person is in DP, as in (70). Possessors are merged in the specifier of n P.

- (70) Positions of agreement features in Carstens (2000:328)



When an adjective such as (68-b) appears to have case, it is because it has reached the specifier of the projection where that case is situated (the P projection, situated above DP in the extended projection, in the case of the ablative in (68-b)).

The head noun, the controller of agreement, is inflected for number by head movement into ϕ , and for definiteness or indefiniteness by movement into D. The targets of agreement, such as agreeing adjectives and agreeing possessive pronouns, are in specifier positions. Uninterpretable features on the target lead to overt agreement. When these features are strong, movement operations also take place. When the uninterpretable features are weak, movement does not occur in the overt syntax but is delayed until after spell-out.

In certain languages case concord, termed *Suffixaufnahme* in Plank (1995), is attested. In the Old Georgian example in (71), the possessor is marked genitive for its role as possessor, and instrumental in agreement with the possessed noun.

(71) Old Georgian (Blake 1994:103)

sarel-**ita** man-**isa-jta**
name-INSTR father-GEN-INSTR

‘with father’s name’

Example (72) from Quechua similarly shows the possessor agreeing with the possessed noun. In Quechua this occurs when the possessed noun is omitted and when it is separated from the possessor.

(72) Quechua (Blake 1994:104)

Hipash-nin-**ta** kuya-a Hwan-**pa-ta**.
daughter-3SG-ACC love-1SG John-GEN-ACC

‘I love John’s daughter.’

It is important to distinguish this from case-stacking phenomena such as those in Lezgian (73), where (a) illustrates a simple locative case, and (b) shows the combination of that locative case with a directional case.⁸

(73) Lezgian case combinations

a. Simple locative case

sew-re-**w**
bear-ERG-ADESS
‘at the bear’

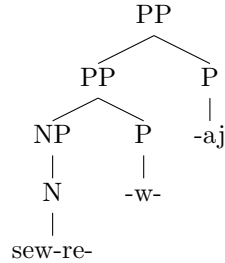
b. Complex case, directional selecting locative

sew-re-**w-aj**
bear-ERG-ADESS-ELAT
‘from the bear’

The underlying structure I assume for the Lezgian example would be as in (74), with separate projections for each case.

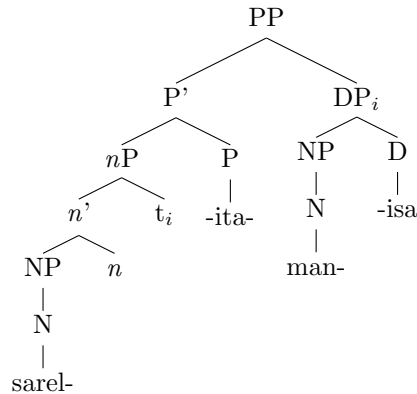
⁸The suffix *-re* preceding the case suffixes in these examples appears to be a necessary addition to the root, forming the stem for several of the different cases, and clearly identifiable as separate from the case suffixes themselves. When used without a further suffix *sew-re* is the ergative form. I do not address this interesting matter in any detail, but see Chapter 5 for possible extensions of the proposal to ergative languages.

(74) Lezgian case stacking structure (from (73-b))



On the other hand, the structure I assume for the Old Georgian example (71) would put the possessed noun *sarel* ('name') within a PP, the P being spelt out by the instrumental case, but with the possessor *man* ('father') simply in DP⁹ within the specifier of *nP* of *sarel*, as in (75).

(75) Old Georgian case concord structure (from (71))



Note that the instrumental morpheme *-jta* on the possessor does not have projectional status in the syntax, unlike the cases which form the focus of my analysis. Instead it is the result of an overt agreement operation, involving movement of the possessor from its base position in the specifier of *nP* to the specifier of PP.

Case stacking and elaborated PPs of the Lezgian type are of interest for the development of the analysis here. Case concord, as illustrated with Georgian and Lezgian, is considered a separate phenomenon.

1.3.5 Theoretical contribution

The present work provides support for the idea that many cases expressing spatial relations are related to the category P, forming a single category with

⁹See Chapter 3 for arguments for analysing genitive as D in several languages, and Chapter 2 for analysis of instrumental as P. I have not conducted detailed analysis of Georgian. Thus, given the variable cross-linguistic use of case terminology, further study would be necessary to establish that these labels are correct. What is important here is the differences in structure, the Georgian concord being established in a specifier position.

adpositions. I analyse the boundaries of this hypothesis, drawing on data not previously discussed in this light. I also provide support for past approaches that form divisions amongst the cases (George 1980), and amongst the adpositions (Zwarts 1997). The analysis integrates these ideas with proposals relating case to the category D (Grosu 1994, Giusti 1995). It supports the claim in McFadden (2004) that there is no relation between syntactic structural and inherent Case (which McFadden more neutrally terms DP-licensing mechanisms) and the morphological cases found on nouns. Instead I argue that these morphological cases are related to functional categories of the noun already needed to account for independent noun phrase phenomena such as spatial and semantic relations, definiteness and number. I further question whether an underlying notion of Case is necessary for explaining DP-licensing, given agreement and EPP features in the syntax and the independence of morphological case. The most original part of the proposal comes in applying the idea of decomposition of pronouns in syntax (Cardinaletti and Starke 1999, Déchaine and Wiltschko 2002) to case paradigms. The mapping presented between the underlying syntactic forms and the surface forms allows for languages to be represented as far as possible as being syntactically similar, and for differences to be derived in systematic ways in the mapping between syntax and morphology.

1.4 Chapter outlines

Chapter 2: P-cases In Chapter 2 I deal with the link between cases and adpositions. In many languages it is clear whether an item is an adposition or a case on the surface, separate words and affixes appearing clearly separable. The main reason for viewing them as one category would be the fact that they overlap in their distribution when it comes to marking argument structure of the verb, noun or adjective. Detailed study of Hungarian cases and postpositions, however, shows that the distinction does not always hold, as the boundary between postpositions and cases in this language is more blurred. Furthermore, many of the cases and postpositions clearly undergo the same syntactic processes in terms of agreement and ordering restrictions, indicating that they share the same structures. Chapter 2 presents the Hungarian cases and postpositions, using this to test the extent of applicability of the hypothesis that cases and adpositions form one category, and concluding that all the cases apart from nominative and accusative in Hungarian may be members of the category P. An account of the underlying structure is given, making use of recent proposals in the literature on adpositions. The chapter finishes with suggestions for the ways in which the analysis could carry over to other languages.

Chapter 3: Genitive and partitive In Chapter 3 I move to Finnish to look at genitive and partitive cases. The chapter begins with a detailed examination of the core cases, nominative, accusative, genitive and partitive, of the Finnish paradigm, briefly describing some of the complex interactions involved

between the different cases, and defining the terms to be applied. I argue that genitive is rather like a definite determiner, and partitive rather like its indefinite counterpart, explaining the fact that the language lacks overt articles. I further suggest that the analysis may carry over to Slavic languages with a similar pattern of usage for the genitive to that found for the partitive in Finnish, coinciding with an absence of overt articles. I also consider the applicability of such an analysis to English *of*, and German genitive and *von*, suggesting that these items are in the process of diachronic change and may spell out P or D.

Chapter 4: Nominative and accusative In Chapter 4 I turn to nominative and accusative, examining the idea that these are associated with the grammatical roles subject and object and concluding that such an analysis cannot account for all instances of these cases. It is also clear that neither case has any identifiable semantics consistently associated with it. I outline work arguing that nominative involves the absence of syntactic Case, endorsing this position, and assuming the a noun in the nominative case is a PP if an adposition is present, a DP if a determiner is present, a ϕ P if there is marked number and an NP otherwise. An examination of the difference between Finnish nominative and accusative suggests that accusative is associated with ϕ . Hungarian accusative is shown to be associated with DP. A brief survey of further cross-linguistic literature on differential object marking, Burzio's Generalisation, and accusative case in a wider perspective reveals that accusative is regularly associated either with D or with ϕ , but varies from one language to another as to which it is associated with. I propose that the accusative values of DP and ϕ P are necessary in order to distinguish the object from the subject.

Chapter 5: Conclusion Chapter 5 summarises the analysis and considers how it fits into syntactic and morphological theories of case. I examine the role of Case in the Principles and Parameters framework, suggesting that the notion of syntactic Case is not adequate to predict the distribution of morphological cases, and may not be necessary to derive the syntactic behaviour of nouns. I also discuss the applicability of the proposal to areas such as ergative case marking, and consider some other notions commonly associated with case in the literature, including case assignment by particular heads and the idea of case hierarchies.

CHAPTER 2

Adpositions, cases and the category P

2.1 Introduction

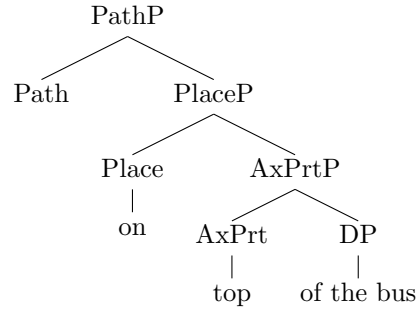
This chapter establishes the connection between cases and adpositions. The point of departure is the idea championed in Fillmore's (1968) 'The Case for Case,' that case-marked nouns have the underlying syntactic structure of a PP, the structure of preposition phrases. I defend this position with respect to cases with spatial interpretations and cases which express semantic roles (such as agent, instrument, and recipient), giving evidence that such cases fit into syntactic structures recently proposed for adpositions. A detailed analysis of Hungarian cases and postpositions is presented, showing that, with the exception of nominative and accusative, both cases and postpositions can be analysed as sharing the same structures.

The analysis is relevant to those cases which make a clear semantic contribution to the noun, those from dative onwards in (1). I show that cases such as those in (1) can be analysed using structures proposed recently in literature on adpositions. Those denoting spatial meanings specifically involve projections for Path and Place, and a nominal projection below PlaceP, also denoting location in spatial expressions. I suggest that a similar projection with nominal characteristics exists within the non-spatial PPs to account for similar patterns of behaviour amongst cases such as dative and instrumental. The structure is an extended projection of the noun. (2) illustrates the structure argued for, using the labels from Svenonius (2006) for concreteness, including an example of an English preposition phrase. AxPrt (Axial Part) is the position of the nominal element in the PP, which Svenonius suggests is present in a few English preposition phrases, but which I will argue is present in many Hungarian PPs.

(1) Hungarian nominal case paradigm

Case	'hour, clock, watch'	Description
Nominative	óra	subject, citation form
Accusative	órát	object
Dative	órának	goal/recipient
Instrumental	órával	means/instrument
Illative	óra ba	to interior
Inessive	óra ban	at interior
Elicative	óra ból	from interior
Sublative	óra ra	to exterior
Superessive	óra n	at exterior
Delative	óra ról	from exterior
Allative	óra hoz	to proximity
Adessive	óra nál	at proximity
Ablative	óra tól	from proximity
Causal	óra ért	for the the sake of
Essive	óra ként	as
Terminative	óra ig	as far as, until
Translative	óra vá	into (change of state)
Distributive	óra nként	per
Temporal	óra kor	at (time)
Sociative	óra stul	with

(2) Schematic structure of PP (Svenonius 2006)



Chapter 1 highlights several reasons for seeing a connection between adpositions and cases, focusing on the fact that an expression using case in one language often has an expression using an adposition in another, as illustrated with Hungarian and English in (3).

(3) Cases in Hungarian as adpositions in English

a. Instrumental

Busz-**szal** vagy metró-**val** menjünk?
 bus-INSTR or metro-INSTR go.SUBJ.1PL
 ‘Shall we go **by** bus or **by** metro?’

- b. Illative
 Be-megyek a régi ház-**ba**.
 into-go.1SG the old house-ILL
 ‘I am going **into** the old house.’
- c. Inessive
 Három könyv van a tásk-ám-**ban**.
 three book.NOM be.3SG the bag-1SG-INESS
 ‘There are three books **in** my bag.’

This cross-linguistic overlap in interpretation of adpositions and case suffixes provides the primary reason for looking for a parallel analysis.

It is also frequently noted that a language that loses its case system begins to make use of adpositions in many contexts in which case would previously have been used (Maling 1983:254, Weerman 1997). German, for example, appears to be losing use of genitive case, and genitive use is often replaced with the preposition *von*, as in (4), where both variants are possible.

- (4) German genitive and *von* (Durrell 1996:38)
- a. Expression with genitive case
 die Ansicht vieler Politiker
 the view many.PL.GEN politician.PL.GEN
 ‘the view of many politicians’
- b. Equivalent expression with *von*
 die Ansicht von vielen Politikern
 the view VON many.DAT politician.PL.DAT

Similar changes seem to have taken place between Old English and Latin, with genitive, and modern English and Italian and Spanish with prepositions.

The idea of a connection between adpositions and case is not new. A similar line has been taken for various languages in the past, including Fillmore (1968) and Emonds (1985; 1987) on English, Vogel and Steinbach (1998) Bayer et al. (2001) and Bayer and Bader (2006) on German, Nikanne (1991) and Kracht (2002) on Finnish, and van Riemsdijk and Huybregts (2001) on Lezgian. McFadden (2004) presents a clear overview of past work along with arguments for taking this view of the semantic cases, focusing particularly on German and Finnish. In this chapter I contribute to this line of reasoning with a close study of Hungarian, where the very reason for originally assuming a categorial divide, the apparent difference between cases as nominal inflection and adpositions as separate words is more blurred than in many other languages. I come to slightly different conclusions about the structural analysis, as I claim that the case is the spell-out of the P morpheme, whereas McFadden, following Nikanne, claims that the P head is empty and that the case is inserted in the morphology in the position of the noun, rather like the Alternative Realisation of Emonds (1985).

Fillmore’s thesis that cases and adpositions share the same syntactic structure receives some criticisms in van Riemsdijk (1978:14-18). The most important of these are firstly the claim that adpositions select cases but that cases

do not select other cases or adpositions, and secondly that case concord occurs but adposition concord does not.

Van Riemsdijk (1978) claims that adpositions can select one another and can select cases, but cases do not select adpositions or other cases, as formalised in (5).

- (5) Selectional restrictions of adpositions and cases
(van Riemsdijk 1978:17)
- a. [P [P...]]
 - b. [P [CASE...]]
 - c. *[CASE [P...]]
 - d. *[CASE [CASE...]]

For example prepositions in Latin select cases on the noun, as in (6). The same is true in many European languages.

- (6) Latin prepositions selecting cases (Burns et al. 1989/1995:22-24)
- a. ad eam currit.
to 3SG.F.ACC run.3SG
'He/she ran to her.'
 - b. sub arboribus dormiebant.
under tree.PL.ABL sleep.IMPF.3PL
'They were sleeping under the trees.'
 - c. ex oppido currebant.
out town.ABL run.IMPF.3PL
'They were running out of the town.'

In more recent work, such as (van Riemsdijk and Huybregts 2001), it has in fact been shown that the pattern in (5-d) is attested in languages such as Lezgian, as shown in (7). Here (a) shows a simple locative case, and (b) involves the combination of that case with a directional case which seems to select it.¹

- (7) Lezgian case selecting case
- a. Simple locative case
sew-re-**w**
bear-ERG-ADESS
'at the bear'
 - b. Complex case, directional selecting locative
sew-re-**w-aj**
bear-ERG-ADESS-POSTESS
'from the bear'

Cases indeed do not seem to select prepositions (5-c), but this may be due to a more general tendency noted in van Riemsdijk (1981). Here van Riemsdijk observes that the likelihood of a noun with case expressing a certain function is inversely proportional to that of an adposition phrase expressing that function,

¹See the note on page 41 for the appearance of the ergative stem in these examples.

with cases being used for core grammatical functions and adpositions for more peripheral or oblique roles (van Riemsdijk 1981:171). In Chapters 3 and 4, I propose that cases such as nominative, accusative, genitive and partitive in fact do not belong to this category at all, and thus do not enter into such implicational scales. The fact that cases selecting cases are attested (7) at least is sufficient to challenge (5) as an argument against subsuming adpositions and cases under one category.

Turning to van Riemsdijk's second challenge, that cases and adpositions exhibit different agreement behaviour, I suggest that this idea also cannot be maintained in view of cross-linguistic evidence. Van Riemsdijk (1978) states that case can determine concord, but that no equivalent exists for prepositions. Case concord of the adjective in Latin is illustrated in (8), where the case of the nouns determines the case on the adjectives.

- (8) Latin case concord (Burns et al. 1989/1995:15)
- a. loco idoneo
place.M.SG.ABL suitable.M.SG.ABL
'in a suitable place'
 - b. tota urbe
whole.F.SG.ABL city.F.SG.ABL
'in the whole city'
 - c. prima luce discessit.
first.F.SG.ABL light.F.SG.ABL leave.PRF.3SG
'He left at first light.'

In Latin such concord is not apparent on prepositions, as shown in (9). Here the adjectives agree with the noun in case, as in (8), but no reflection of the preposition is seen on the adjective.

- (9) Lack of preposition concord in Latin (Burns et al. 1989/1995:22)
- a. **contra** populum Romanum coniurant.
against people.M.SG.ACC Roman.M.SG.ACC conspire.3PL
'They conspire against the Roman people.'
 - b. **in** aperto tumulo castra posuit.
on exposed.M.SG.ABL hill.M.SG.ABL camp.N.PL place.PRF.3SG
'He pitched camp on an exposed hill.'

By contrast, in Hungarian there does seem to be concord with a postposition as well as with a case suffix. In Hungarian the attributive adjective does not display concord with the noun, but the demonstrative has concord in number and either the case or the postposition (with one class of postpositions), the latter two being in complementary distribution. This is illustrated in (10), where (a) shows the emergence of the same case on demonstrative and noun, and (b) shows a postposition following both the demonstrative and the noun.²

²This construction is analysed on page 65.

- (10) Hungarian demonstrative concord
- a. Concord with case
 ab-**ban** a ház-**ban**
 that-INESS the house-INESS
 ‘in that house’
 - b. Concord with postposition
 a **mögött** a ház **mögött**
 that behind the house behind
 ‘behind that house’

It is difficult to see how the phenomenon in (10-b) could be analysed without making reference to concord, since it appears to directly parallel the case concord found in Hungarian and also languages such as Latin in (8). Thus it appears that concord phenomena also need not be an argument against subsuming cases and adpositions under the same category.

The conclusion here is that such challenges to the idea of analysing adpositions and cases under one categorial banner disappear in the light of further cross-linguistic evidence, combined with closer scrutiny of the specific cases which are suitable for such an analysis.

The structure of this chapter is as follows. Section 2.2 develops in detail the proposal that cases and adpositions belong to the same category. The focus is on Hungarian because Hungarian cases and postpositions blur the boundaries between the two items, thus providing particularly strong evidence for the connection. Section 2.3 shows that Hungarian nominative and accusative cannot be accounted for under the P-case analysis. The analysis of these cases is presented in Chapter 4. Section 2.4 then examines the theoretical repercussions of the analysis, looking at its cross-linguistic viability, and discussing the characteristics of the category P. I also treat topics commonly related to the relevant cases, from functional or lexical status, and predicate status, to selection, assignment and checking issues. Section 2.5 summarises and concludes the chapter.

2.2 Proposal: cases and adpositions as P

This section presents the main point of the analysis, namely that cases and adpositions belong to the same syntactic category, sharing the same range of syntactic structures and having the same relationship to the noun. The focus is on Hungarian cases and postpositions, which are remarkably similar in their behaviour. The Hungarian data represents a challenge to theories separating cases from adpositions on the basis that cases are inflectional morphology on the noun and adpositions are separate words standing in a particular relation to the noun. Section 2.2.1 presents the overlapping semantic and morphosyntactic behaviour of Hungarian cases and postpositions, arguing that this constitutes grounds to treat them as members of the same category. Section 2.2.2 reviews recent research on the syntactic structure of the category P, showing how this can be applied to the Hungarian cases and postpositions, and how the differ-

ences in morphological status can be derived. The basis for the suffixes being spelt out as part of the noun is the fact that their phonological content is weak and monosyllabic, whereas the postpositions are polysyllabic.

2.2.1 Hungarian cases and postpositions

This section focuses on the reasons for viewing Hungarian cases and postpositions as members of the same category. On the basis of a range of diagnostics, two classes of postpositions can be identified (Marác 1989: Chapter 8). For simplicity I refer to these classes as inflecting postpositions and non-inflecting postpositions (Marác's 'dressed' and 'naked' Ps), though it should be noted that those postpositions referred to as inflecting postpositions inflect only with a pronominal object and not with a full noun. The following subsection illustrates how Hungarian cases and postpositions overlap semantically. I then proceed to show how Hungarian cases and postpositions also exhibit similar morphosyntactic characteristics. I argue in favour of subsuming them under one syntactic category P.

Overlapping semantics

No line can be drawn between Hungarian case suffixes and postpositions on the basis of their interpretation. Both cases and postpositions can express semantic roles,³ as illustrated in (11), where the instrumental case, like the preposition *with* in English, expresses the instrument role, and the postposition *által* ('by') is assumed to express the agent role.

- (11) Hungarian expressions of semantic roles
- a. Case expressing instrument

Inkább ceruzá-**val** ír-ok, mint toll-**al**.
 first pencil-INSTR write-1SG than pen-INSTR
 'I prefer to write with a pencil than with a pen.'
 - b. Postposition expressing agent

a Péter **által** olvas-ott könyv
 the Peter.NOM by read-PST.PRT book.NOM
 'the book read by Peter'

(12) and (13) show that cases and postpositions can realise spatial expressions involving both location and direction.

³See Chapter 1, Section 1.3.4, for my views on the relationship of adpositions and cases to θ -roles and predicates, where I suggest that the P is the expression of the θ -role assigned by the verb or other predicate, rather than a θ -role assigner itself. These notions will not play any part in the present analysis.

- (12) Hungarian directional expressions
- a. Case
 Imre el-ment Olaszország-**ba**.
 Imre.NOM PV-went Italy-ILLAT
 ‘Imre went to Italy.’
- b. Postposition
 Fel-akasztotta a festmény-t az ablak-ok **közé**.
 PV-hung the painting-ACC the window-PL.NOM to.between
 ‘He/She hung up the painting between the windows.’
- (13) Hungarian locative expressions
- a. Case
 Géza olvas a kert-**ben**.
 Géza.NOM read.3SG the garden-INCESS
 ‘Géza is reading in the garden.’
- b. Postposition
 Négy szék van az asztal **körül**.
 four chair.NOM be.3SG the table.NOM round
 ‘There are four chairs around the table.’

Spatial expressions are often assumed to be the domain of the adposition, but from this it is clear that cases can also cover this semantic field. It is significant that both direction and location are attested, since these are analysed as separate projections in recent literature on the structure of PP, direction universally dominating location (Jackendoff 1983). In fact in Hungarian a regular pattern emerges in the form of a three-way distinction between static location, motion towards, and motion from an object. Both cases (14) and postpositions (15) exhibit this three-way distinction. This interacts with a further three-way distinction between interior, exterior and proximal location amongst the case suffixes, whereas the postpositions are each lexically specified for more detailed location.

- (14) Three-way distinction in case suffixes in spatial expressions

	towards	at	from
interior	-be/-be illative ‘into’	-ban/-ben inessive ‘in’	-ból/-ből elative ‘out of’
exterior	-ra/-re sublative ‘onto’	-on/-en/-ön superessive ‘on’	-ról/-ről delative ‘off’
proximity	-hoz/-hez/-höz allative ‘to’	-nál/-nél adessive ‘at’	-tól/-től ablative ‘from’

Many postpositions also have the same three-way distinction, as illustrated in (15).

- (15) Three-way distinction in postpositions in spatial expressions

	towards	at	from
under	alá	alatt	alól
before	elé	előtt	elől
above	fölé	fölött/felett	fölül
between	közé	között/közt	közül
near	mellé	mellett	mellől
behind	mögé	mögött	mögül

(16) shows that case suffixes and postpositions can realise temporal expressions.

- (16) Hungarian cases and postpositions in temporal expressions

- a. Case in temporal expression
 A születésnap-om december-**ben** van.
 the birthday-1SG December-INCESS be.3SG
 ‘My birthday is in December.’
- b. Postposition in temporal expression
 Három nap **múlva** jövök haza.
 three day.NOM after come home
 ‘I’ll come home in three days.’

(17) shows that case suffixes and postpositions realise a variety of other relational meanings.

- (17) Hungarian cases and postpositions in other relational expressions

- a. Csak keves-et evett a hal-**ból**.
 only little-ACC eat.PST.3SG the fish-ELAT
 ‘He only ate a little of the fish.’
- b. Kíváncsi vagyok Szabó film-jé-**re**.
 curious be.1SG Szabó film-3SG-SUBL
 ‘I am curious about Szabó’s film.’
- c. Ne aggódjatok a gyerek-ek **miatt**!
 not worry.SUBJ.2PL the child-PL.NOM because
 ‘Don’t worry on account of the children!’
- d. a könyv **szerint**
 the book.NOM according.to
 ‘according to the book’

Such relational meanings do not seem to form a cohesive semantic category, and are not generally associated with a specific syntactic category. Nevertheless, any morphosyntactic diagnostics used to define those postpositions and cases expressing θ -roles and spatial or temporal expressions will class such cases and postpositions as those in (17) along with them. Note further that cases such as the relative in (a) and sublative in (b) also have spatial uses, relative *-ból* meaning ‘out of,’ and sublative *-re* meaning ‘onto.’ It therefore makes sense to

include these items in the structural analysis.

To summarise, in terms of interpretation, the two traditionally distinguished categories in Hungarian, case suffixes and postpositions, appear to overlap in their semantic coverage. This is the basis for attempting to analyse them as belonging to one category. The next section examines morphosyntactic evidence that points in the same direction.

Morphosyntactic overlap

In the languages most commonly studied with respect to case and adpositions, it is clear what constitutes a case (an affix on the noun) and what constitutes an adposition (a separate word). However, as observed in Iggesen (2005), there are languages in which the difference is not so clear and where there seems to be little basis for drawing a line between the two. In Hungarian the same morpheme can appear as an affix in one context and as the root of a separate word, acting as a host to agreement morphology, in another. Various diagnostics have been proposed for classifying these elements as separate categories in syntax as well as morphology. I suggest instead that the behaviour of the cases and postpositions provides support for a unified categorial analysis, fitting structures recently proposed in the literature on adpositions. Much of the data is drawn from Marác (1989) and É. Kiss (2002), but the conclusion reached is different. I return to their analyses in Section 2.2.2.

Hungarian has an extensive suffixal case system and two types of postposition, referred to as inflecting and non-inflecting postpositions. With nouns, as shown in (18), cases attach as a suffix. Most case suffixes undergo vowel harmony with the noun, which is the main criterion for regarding them as suffixes, rather than separate words.

- (18) Hungarian case suffixes
- a. János-**sal** / csészé-**vel**
 János-INSTR / cup-INSTR
 ‘with John’ / ‘with a cup’
 - b. a ház-**ban** / a könyv-**ben**
 the house-INESS / the book-INESS
 ‘in the house’ / ‘in the book’

Inflecting postpositions follow the nominative (bare) form of the noun, as in (19).⁴ They are termed *inflecting* postpositions because they show agreement with a pronominal object (b). The pronominal form is thus the postposition with an agreement suffix, optionally preceded by the nominative form of the pronoun, orthographically a prefix. Inflecting postpositions differ from the case suffixes in not undergoing vowel harmony (which is taken as evidence that they are separate words, not suffixes).

⁴As promised in Chapter 1, I continue to refer to the bare form as nominative, following the convention for Hungarian, and to gloss these forms as NOM on nouns in examples. This is for ease of reference and is not intended to indicate an underlying syntactic case status, an option which I argue against in Chapter 4. Further details of the terminology used also appear in Chapter 1.

- (19) Hungarian inflecting postposition
- a. János **mellett**
John.NOM near
'near John'
 - b. (én-)**mellett-em**
1SG-near-1SG
'near me'

Non-inflecting postpositions follow a noun (a) or pronoun (b) which has a case.

- (20) Hungarian non-inflecting postpositions
- a. a híd-on **át**
the bridge-SUP over
'over the bridge'
 - b. rajt-a **át**
SUP-3SG over
'over it'

Marác (1989) assumes that this is an instance of case assignment by the postposition. I take a different view of this, arguing in Section 2.2.2 (in line with Hegedűs 2006a) that the postposition is in fact more like a particle, such as those illustrated with English in (21).

- (21) English verbal particles (Hegedűs 2006b)
- a. The book fell **down**.
 - b. Mary read **out** the letter.
 - c. Mary climbed **up** the hill.

The Hungarian combinations of non-inflecting postpositions and case are thus like English particle and preposition phrases, as in (22). Further discussion of subsuming such particles under the category P appears in Section 2.4.2.

- (22) English particle and preposition combinations
- a. up in the air
 - b. down by the river

In this respect it seems that the non-inflecting postposition is more like a modifier of the case than a head that selects a particular case. This is in keeping with the idea that the case is the phonological realisation of a syntactic head, rather than of features of the noun.

In the following examples I compare the behaviour of case morphemes with that of the two postposition classes just introduced. Firstly, Hungarian case suffixes and inflecting postpositions pattern together (separately from non-inflecting postpositions) in taking pronominal agreement, as illustrated in (23). The case and inflecting postposition examples in (a) and (b) form a single word, phonologically and orthographically, with the pronoun, which can be dropped if it is not emphasised, and the agreement suffix, which is obligatory. The non-inflecting postposition *szemben* in (c), however, cannot have an agreement suffix. Just as they combine with a full noun with case (20), non-inflecting

postpositions also combine with a pronoun with case, and that case has an agreement suffix, just as in (a). I argue that the non-inflecting postposition is in fact a particle modifying the case, and that the case is in a head position in the PP projection.

- (23) Hungarian pronouns with case and postpositions
- a. Case suffix with pronominal agreement
 (én)-vel-**em**
 1SG-INSTR-1SG
 ‘with me’
 - b. Inflecting postposition with pronominal agreement
 (én)-mögött-**em**
 1SG-behind-1SG
 ‘behind me’
 - c. Non-inflecting postposition without pronominal agreement
 (én)-vel-em szemben
 1SG-INSTR-1SG opposite
 ‘opposite me’

The optionality of the pronominal element here is important, since its absence results in not only postpositions but also case morphemes appearing as the main parts of words. Thus in Hungarian it is possible to identify a category of morphemes which are spelt out sometimes as affixes but sometimes as independent words, a pattern of behaviour between pure suffixal status and pure independent word status which is unattested in the Indo-European languages often forming the basis for the study of case.

In demonstrative expressions, cases and inflecting postpositions follow the demonstrative as well as the full noun, but non-inflecting postpositions follow only the noun, as shown in (24).

- (24) Hungarian demonstrative with case and postpositions
- a. Case suffix on demonstrative and full noun
 en-**nél** a ház-**nál**
 this-ADESS the house-ADESS
 ‘at this house’
 - b. Inflecting postposition following demonstrative and full noun
 az **alatt** a fa **alatt**
 that under the tree.NOM under
 ‘under that tree’
 - c. Non-inflecting postposition following noun only
 az-zal (***együtt**) a fiú-val **együtt**
 that-INSTR (*together) the boy-INSTR together
 ‘together with that boy’

This appears to be concord of the demonstrative with the case or postposition of the noun, and is treated as such in my implementation in Section 2.2.2. As

noted above (see the discussion around (8)), the absence of such concord with prepositions and its presence with case in some Indo-European languages has sometimes been seen as an argument for viewing these as separate categories. (24) shows that this split is not universal.⁵

Again, when it comes to degree modification, case and inflecting postpositions pattern together, being inseparable from the noun, whereas non-inflecting postpositions can be separated from the noun by degree modifiers, as shown in (25). The modifier *majdnem* ('almost') must be placed before the noun phrase when the noun is followed by a case suffix (a) or inflecting postposition (b), but can appear either before the noun phrase or intervening between the noun phrase and the non-inflecting postposition (c).

- (25) Hungarian degree modification of case and postpositions
- a. Case suffix inseparable from the noun
(majdnem) az utcá-(*majdnem)-ban
almost the road-almost-INESS
'almost in the road'
 - b. Inflecting postposition inseparable from the noun
(majdnem) a ház (*majdnem) mellett
(almost) the house.NOM (almost) near
'almost by the house'
 - c. Non-inflecting postposition separable from the noun
(majdnem) az út-on (majdnem) végig
almost the road-SUP almost to.the.end
'almost to the end of the road'

This shows that although the inflecting postposition appears orthographically and prosodically as a separate word, it still does not have the syntactic freedom to be separated from the noun.

Finally, case and inflecting postpositions pattern together in that they cannot be preposed to a position immediately preceding the noun, unlike non-inflecting postpositions, as illustrated in (26). With the non-inflecting postpositions this has the effect of making the interpretation emphatic.⁶

- (26) Hungarian preposing of case and postpositions
- a. Case suffixes do not prepose
*val János
INSTR János
'with János'

⁵Finnish has concord of the attributive adjective with the case of the noun, but not with a postposition or preposition. Since my analysis of this difference also makes reference to genitive and partitive case (which co-occur with Finnish adpositions) I postpone discussion of this until Chapter 3.

⁶I use the term *preposing* here purely to describe the construction, on the basis that the neutral order is postpositional. I argue below for this construction involving movement of the postposition from a base position following the noun to a specifier position preceding the noun.

- b. Inflecting postpositions do not prepose
 *mellett János
 near János.NOM
 ‘near János’
- c. Non-inflecting postpositions can prepose for emphasis
 együtt János-sal
 together János-INSTR
 ‘together with János’

Like the pattern with degree modification in (25), this preposing pattern in (26) indicates that the cases and inflecting postpositions have a particularly close relationship with the noun, whereas the non-inflecting postpositions appear to have greater syntactic freedom.

In (23)-(26) cases and inflecting postpositions pattern together, non-inflecting postpositions behaving differently. For the following set of characteristics, however, inflecting and non-inflecting postpositions pattern together, and can be distinguished from case suffixes. Firstly, cases undergo vowel harmony (27), whereas inflecting postpositions (28) and non-inflecting postpositions (29) do not. The (a) examples show nouns with low back vowels, and the (b) examples with high front vowels, resulting in harmony in the suffix in (27), but making no difference to the form of the postposition in (28) and (29). This is standardly used to determine whether a given unit is a phonological word or not.⁷

- (27) Vowel harmony in case suffixes
- a. a ház-**ba**/*-be
 the house-ILL
 ‘into the house’
- b. a zseb-**be**/*-ba
 the pocket-ILL
 ‘into the pocket’
- (28) Inflecting postpositions, no vowel harmony
- a. a ház **mellett**/*mallatt
 the house.NOM near
 ‘near the house’
- b. a zseb **mellett**/*mallatt
 the pocket.NOM near
 ‘near the pocket’

⁷Certain case suffixes fail to undergo vowel harmony, in contrast with the typical pattern shown in (27). This receives a phonological explanation, as the suffixes in question contain vowels that do not undergo harmony: *-ért* (causal, ‘for’), *-ként* (essive-formal, ‘as’), *-ig* (terminative, ‘as far as’), *-nként* (distributive, ‘per’), *-kor* (temporal, ‘at’). The regular vowel harmony alternation in Hungarian is between *-a-* for back vowels and *-e-* for front vowels, as with the dative *-nak/-nek*. The vowels in the non-harmonising suffixes, *-i-* and *-é* are not paired with alternates, but are rather perceived as neutral with respect to the back/front alternation (Rounds 2001:11).

- (29) Non-inflecting postpositions, no vowel harmony
- a. a ház-zal **szemben**/*szamban
the house-INSTR opposite
'opposite the house'
- b. a zseb-bel **szemben**/*szamban
the pocket-INSTR opposite
'opposite the pocket'

By this diagnostic, the case suffixes do not form independent words, whereas in (23) above, it seems that these morphemes can indeed form the heads of words. However, it does not seem enough simply to say that they are bound morphemes. Even as bound morphemes they are unusual in having a variable direction of attachment, acting as a suffix to the noun, but forming the first part of the word when combining with agreement suffixes (see (23-a)). In Section 2.2.2 I propose that vowel harmony could be related to the number of syllables of phonological content in the item, the case suffixes being phonologically dependent because they are weak and monosyllabic, whereas the inflecting postpositions are all polysyllabic. This difference between cases and inflecting postpositions is therefore not an object to considering them syntactically equivalent.

The adjective-forming suffix *-i* can be added to some postpositions of both types, but not to case suffixes in modern Hungarian, as shown in (30).^{8,9}

- (30) Adjectival suffix *-i* with Hungarian Ps
(adapted from Marác 1989:356-61)
- a. Incompatibility of *-i* and case suffixes
*a kert-**ben-i** virág
the garden-INESS-ADJ flower.NOM
'the flower in the garden'
- b. Compatibility of *-i* and inflecting postposition
a híd **mögött-i** út
the bridge.NOM behind-ADJ road.NOM
'the road behind the bridge'
- c. Compatibility of *-i* and non-inflecting postposition
a ház-on **kívül-i** virág
the house-SUP outside-ADJ flower.NOM
'the flower outside the house'

Similarly, it is possible to add sublative or relative case suffixes to certain members of both types of postposition, but these suffixes cannot combine with any of the case suffixes, as illustrated in (31).

⁸The form *kert-ben-i* (garden-INESS-ADJ) may be accepted by some speakers as an archaic form, but the usual adjectival form in modern Hungarian is *kert-i* (garden-ADJ), with the adjectival suffix attaching to the bare root of the word (Huba Bartos, p.c.).

⁹The adjectival suffix cannot be added to inflecting postpositions when they have inflection. Thus although (30-b) is acceptable, **mögött-em-i* (behind-1SG-ADJ) is impossible.

- (31) Sublative and delative case with Hungarian Ps (Marác 1989:356-61)
- a. Incompatibility with case suffixes
 *a híd-**on-ról**
 the bridge-SUP-DEL
 ‘from on the bridge’
 - b. Compatibility with inflecting postpositions
 három óra **után-ra**
 three hour.NOM after-SUBL
 ‘by after three o’clock’
 - c. Compatibility with non-inflecting postpositions
 a híd-on **túl-ról**
 the bridge-SUP beyond-DEL
 ‘from behind the bridge’

Finally, ellipsis is possible from postpositions (32), but not from case-inflected noun phrases (33). Examples (32) and (33) could alternatively be assumed to involve coordination of Ps, rather than ellipsis. Under either view the contrast between cases and postpositions holds.

- (32) Ellipsis with postpositions
- a. Noun ellipsis in coordinated PPs
 a ház előtt és (a ház) mögött
 the house.NOM before and (the house.NOM) behind
 ‘before and behind the house’
 - b. P-ellipsis in coordinated PPs
 a ház (előtt) és a garázs előtt
 the house.NOM (before) and the garage.NOM before
 ‘before the house and the garage’
- (33) Ellipsis with case suffixes (adapted from É. Kiss 2002:184)
- a. Unacceptability of noun ellipsis with coordinated NPs
 a ház-tól és *(a ház)-ból
 the house-ABL and (the house)-ELAT
 ‘from inside and away from the house’
 - b. Unacceptability of case suffix ellipsis with coordinated NPs
 a ház-*(-nál) és a garázs-nál
 the house(-ADESS) and the garage-ADESS
 ‘at the house and the garage’

The table in (34) summarises the morphosyntactic characteristics considered in this section. From this it is possible to see that separating postpositions from case suffixes is problematic because of the mixed behaviour of inflecting postpositions. It is not clear that one set of diagnostics should take priority.

- (34) Summary of morphosyntactic behaviour of Hungarian affixes and Ps

Characteristic	Case	Infl P	Non-infl P
pronominal agr. (23)	yes	yes	-
demonstr. concord (24)	yes	yes	-
*intervening deg. mod. (25)	yes	yes	-
*preposing (26)	yes	yes	-
vowel harmony (27)-(29)	yes	-	-
*adj. suffix <i>-i</i> (30)	yes	-	-
*SUBL/DEL case (31)	yes	-	-
*ellipsis (33)-(34)	yes	-	-

To complicate matters further, there are borderline cases even for these groupings. The following case suffixes have no pronominal form, contrary to (23): *-vá/-vé* (translative, ‘into’), *-ként* (essive-formal ‘as’), *-ig* (terminative, ‘as far as’), *-nként* (distributive, ‘per’), *-kor* (temporal, ‘at’), *-nta/-nte* (distributive-temporal, ‘per’), *-stul/-stül* (sociative, ‘with’), *-t/-ott/-ett/-ött* (locative, ‘at’). Ellipsis is also acceptable, at least for some speakers, in restricted circumstances with certain case suffixes, as shown in (35), unlike those illustrated in (33).

- (35) Case suffix ellipsis in set expressions (É. Kiss 2002)

feleség- és anya-ként
 wife and mother-ESS
 ‘as wife and mother’

Thus morphosyntactic diagnostics do not result in a clear distinction between cases and postpositions.

A categorial distinction between cases and postpositions fails to explain similarities in their distribution. Case marked nouns and postposition phrases can be substituted for one another in certain contexts, as illustrated for the dative and *számára* in (36), and for spatial expressions in (37).

- (36)
- Számára*
- /dative in the same positions (Rákosi 2006:130)

- a. **Nek-em** / **Számomra** úgy tűn-t, hogy ez a legjobb
 DAT-1SG / for.1SG so seem-PST that this the best
 megoldás.
 solution.NOM
 ‘It seemed to me that this was the best solution.’
- b. Ez fontos **nek-i** / **számára**.
 this important DAT-3SG / for.3SG
 ‘This is important to/for him.’
- c. Ez nem lehetséges **nek-i** / **számára**.
 this not possible DAT-3SG / for.3SG
 ‘This is not possible for him.’

- (37) Similar distribution of spatial cases and adpositions
- a. A fiú a ház-**ban** olvas.
 the boy.NOM the house-INCESS read.3SG
 ‘The boy is reading in the house.’
- b. A fiú a ház **mögött** olvas.
 the boy.NOM the house.NOM behind read.3SG
 ‘The boy is reading behind the house.’

According to the distributional criterion of categorial identity, if two constituents belong to the same category, they can be substituted for each other in a given syntactic environment. Although this is not watertight as a diagnostic for categories, it at least provides weak support for treatment of the postpositions and cases as one category and not for their separation.

Clearly the difficulty of drawing a distinction between Hungarian cases and postpositions need not in itself be a reason to draw no distinction at all. However, there seem to be no clear reasons to give greater importance to one set of diagnostics in (34) over another. Mechanisms already proposed in syntax and morphology can derive the differences between them on the assumption that they start from the same types of syntactic structures. I suggest instead that recent proposals for PP syntax and the mapping from syntax to morphology capture the similarities and differences better than a categorial divide.

2.2.2 PP structures

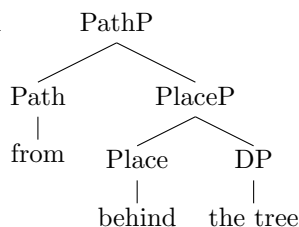
This section shows how recently proposed analyses of the category P may provide an explanation for the behaviour of the different Hungarian P classes as introduced in the previous section. The following subsection outlines the relevant proposals on PP syntax. I then proceed to detail the structure to be used here, relating it to the Hungarian data just introduced and to argue that this represents an improvement on previous treatment of the same subject matter.

Background on the structure of PP

Recent developments in research on the syntactic structure of adpositions offer a convenient way of describing the syntax underlying the Hungarian P forms. There is now a general consensus that spatial preposition structures involve a projection for PLACE, optionally dominated by a projection PATH (Jackendoff 1983; 1990, van Riemsdijk 1990, van Riemsdijk and Huybregts 2001, Kracht 2002, den Dikken 2003, Svenonius to appear c, among others).

(38) PP structure with PATH and PLACE projections

a. Head initial, English

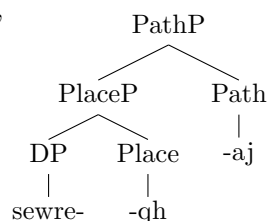


b. Head final, Lezgian

sewre-qh-aj

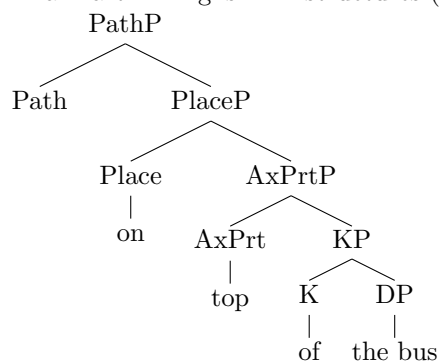
bear-POSTESS-ELAT

'from behind the bear'



Certain PPs in many languages have a nominal character (see Stringer 2005 on English, French and Japanese, Terzi 2005a;b; to appear on Greek, Svenonius 2006 on English, Botwinik-Rotem to appear on Hebrew, Pantcheva to appear on Persian). Terzi and Botwinik-Rotem argue for a silent noun Place, present in all Greek and Hebrew PPs, modified by the overt preposition in Greek and Hebrew Path and PlacePs. Svenonius (2006; to appear b) argues for a projection termed the *Axial Part*, which contains the overt nominal part of the PP in languages such as English (39).

(39) Axial Part in English PP structures (Svenonius 2006)



I adopt the Axial Part label for the analysis of many of the cases and inflecting postpositions in Hungarian,¹⁰ since these seem to have various nominal characteristics. The data examined in this chapter provide support for a

¹⁰I do not adopt the KP analysis, for reasons outlined in Section 2.4.2.

point made in Stringer (2005), namely that such nominal Ps do not behave like normal lexical nouns. For this reason a label avoiding a directly nominal association appears to be appropriate. Stringer (2005) shows systematically for English, French and Japanese, that modification by determiners and adjectives is ruled out for such nominal Ps, as illustrated for English in (40).

- (40) Restrictions on modification of nominal P in English
- a. in front of the shop \neq in **the** front of the shop
 - b. ??in **dusty** front of the shop
 - c. ??in fronts of the shop

I assume (in line with Svenonius 2006) that the Axial Part projection is not necessarily present in all PP projections, though I do argue for its presence in all Hungarian PPs below. My understanding of this category is that it is a subtype of the category P, which exhibits some nominal characteristics, rather than a separate, new category Axial Part, or a member of the category N (as in Botwinik-Rotem to appear). The extent to which Ps can behave like nouns varies, as will become clear in the following discussion. Axial Part is a convenient way of labelling such Ps where nominal characteristics play an important role in their syntactic behaviour. It seems likely that such Ps are part of a diachronic grammaticalisation process. In this respect it may be that a synchronically based syntactic framework is inadequate to fully represent it without resorting to hybrid categories (cf. also Ross 1972 for examples of the ways in which the boundaries between the lexical categories can be blurred). Such Ps with nominal characteristics may also bear a relation to items termed semi-lexical nouns in Emonds (1985). I treat the category as P, rather than N, because it seems to form a part of most PP structures in many languages (including Hungarian, Finnish, Greek, Hebrew and Persian), and to have a significant presence in many more languages, including English and French. See Section 2.4.2 for further discussion of category membership and the way in which the category P is delimited.

The important points which I adopt from previous research are the use of a twofold Path and Place structure in directional expressions, and the presence of a projection Axial Part with defective nominal characteristics below Place (or below a simple P in non-spatial expressions). I understand Path, Place and Axial Part to be subtypes of the category P. Thus a structure with all possible projections realised would be as in (41), though not all projections will be realised in all PPs.

- (41) Full PP structure
-
- ```

graph TD
 PathP1[PathP] --- Path1[Path]
 PathP1 --- PlaceP1[PlaceP]
 PlaceP1 --- Place2[Place]
 PlaceP1 --- AxPrtp1[AxPrtp]
 AxPrtp1 --- AxPrtp2[AxPrtp]
 AxPrtp1 --- Place3[Place]
 AxPrtp2 --- AxPrtp3[AxPrtp]
 AxPrtp2 --- DP1[DP]
 DP1 --- DP2[DP]
 DP1 --- AxPrtp4[AxPrtp]

```



### Proposal for Hungarian P

This section shows how the Hungarian cases and postpositions, as presented above fit into the types of structure proposed for adpositions. I first focus on establishing the presence of Axial Part in Hungarian, showing that nouns form the diachronic source for many of the cases and postpositions, and that this results in defective nominal characteristics in many Ps synchronically. I propose that the difference between the cases with pronominal forms and the inflecting postpositions reduces to differences in the quantity of phonological material inserted into identical structures at vocabulary insertion. The non-inflecting postpositions, on the other hand, are analysed as adjuncts to the PP structure of the case.

*Establishing the presence of Axial Part* Many of the case suffixes and postpositions in Hungarian have developed diachronically from nouns. For example temporal *-kor* comes from ‘age,’ *mögött* (‘behind’) from ‘back,’ *köré* (‘around’) from ‘circle,’ *mellé* (‘beside’) from ‘breast,’ and *helyett* (‘instead of’) from ‘place.’ Cases and postpositions still exhibit some nominal behaviour in the form of elements of the possessive paradigm and frozen case inflections. (42) is a summary of the characteristics of the possessive paradigm (analysed in detail in Szabolcsi 1981) that are relevant here, and (43) gives an example, (a) with the nominative possessor fixed in the position immediately preceding the possessum, and (b) with the dative possessor, which is more free.

- (42) Characteristics of the possessive paradigm
- a. Possessor is nominative or dative.
  - b. Possessum agrees with nominal or pronominal possessor.
  - c. Case follows possessive agreement on the noun.
  - d. Dative possessors can be separated from the possessum.
- (43) Hungarian possessive construction
- a. Olvas-t-am (a) János könyv-é-t / könyv-e-i-t.  
read-PST-1SG the János book-3SG-ACC / book-3SG-PL-ACC  
‘I read János’s book/books.’
  - b. (János-nak) olvas-t-am (János-nak) a könyv-é-t /  
János-DAT read-PST-1SG János-DAT the book-3SG-ACC /  
könyv-e-i-t.  
book-3SG-PL-ACC  
‘I read János’s book/books.’

Many Hungarian P forms behave like possessed nouns in several respects, but they fail to conform to all the possessive characteristics. Thus suffixal cases (44), which are the most grammaticalised forms, and inflecting postpositions (45) agree with pronouns (the (a) sentences) but not with full nouns (b), and have no plural forms (c), in contrast with possessed nouns.

- (44) Agreement of case suffixes
- a. Agreement with the pronoun  
(mi)-vel-**ünk**  
(1PL)-INSTR-1PL  
'with us'
  - b. Lack of agreement with the noun  
János-sal(**\*-a**)  
János-INSTR(-3SG)  
'with János'
  - c. Lack of plural form  
**\*(mi)-vel-i-ünk**  
(1PL)-INSTR-PL-1PL
- (45) Agreement with postpositions
- a. Agreement with the pronoun  
(mi)-mögött-**ünk**  
(1PL)-behind-1PL  
'behind us'
  - b. Lack of agreement with the noun  
János mögött(**\*-e**)  
János behind(-3SG)  
'behind János'
  - c. Lack of plural form  
**\*(mi)-mögött-i-ünk**  
(1PL)-behind-PL-1PL

In (44) it is not clear what a possible interpretation of a plural form such as the one in (c) would be, or how it would differ from the singular in (a), 'with us.' In (45) the only way to understand such a plural in an English equivalent would be to substitute a noun, replacing 'behind us' with 'at our backs.' This suggests that number is a key factor in distinguishing between nouns and Ps.

Inflecting postpositions exhibit an additional characteristic which sets them apart from case suffixes, making them look more nominal, in keeping with the idea that they are less grammaticalised forms. The nominal object of an inflecting postposition is dative when the postposition is moved away from its object (but the dative option is not available when the postposition is in its regular position following the noun, as it would be in the possessive paradigm). This is illustrated in (46), where (a) shows the postposition moved into preverbal position, away from the noun which would naturally be treated as its object or ground, which then has dative case. In (b) the postposition follows the noun directly, and the noun cannot then have dative case.

(46) Inflecting P as preverb and postposition (adapted from É. Kiss 2002)

a. Preverbal position

A fiú-k            **mellé-je**    löttek            a cél-**nak**.  
 the boy-PL.NOM beside-3SG shoot.PST.3PL the target-DAT  
 ‘The boys missed the target.’

b. Postposition

A fiú-k            löttek            a cél(\*-nak)    mellé.  
 the boy-PL.NOM shoot.PST.3PL the target(-DAT) beside  
 ‘It’s the boys that missed the target.’

It is possible to identify a frozen case ending in many of the postpositions. Whilst this case ending precedes the possessive agreement marker in most postpositions (47), some postpositions inflect before the frozen case ending (48) (following the order of affixes in possessed nouns illustrated in (43)).

(47) Inflecting postposition with frozen case ending followed by agreement

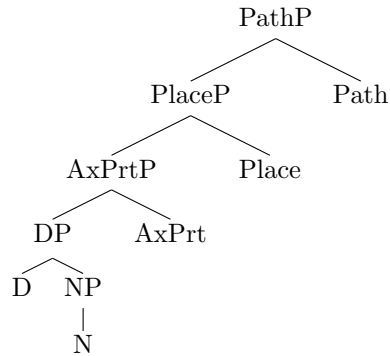
hely-ett-em  
 place-LOC-1SG  
 ‘instead of me’

(48) Inflecting postposition with agreement followed by case ending

szám-om-ra  
 part-1SG-SUBL  
 ‘for my part’

Thus there are P forms at various stages of grammaticalisation identifiable in modern Hungarian. Based on this evidence of the nominal nature of Hungarian postpositions and cases, I suggest that there is a projection of Axial Part present in all Hungarian PPs, which gives rise to the possessive agreement seen. Unlike other Ps, Axial Part has uninterpretable person and number features which must be checked with the interpretable person and number features of the object. As stated in Chapter 1, I assume that agreement takes place in the specifier-head configuration. Here the uninterpretable features are weak, so the configuration is reached in the covert syntax. The structures here represent the overt syntactic positions before spell-out, with the object in its base position. The basic structure of Hungarian Ps would then be as in (49).

- (49) Bare structure of Hungarian case-marked nouns



The role of Axial Part might be seen to have some bearing on the lexical or functional status of the category. In keeping with my approach outlined in Chapter 1, I do not view the lexical or functional status to have any importance for the analysis independent of the question whether a given item is in the extended projection of another or forms the lexical core of a projection. In this respect Axial Part is functional, forming part of the extended projection of the noun. Its person and number agreement properties need not be an obstacle to this, as functional projections of the verb (I/T and sometimes C in languages with inflecting complementisers such as West Flemish) are standardly analysed as having person and number agreement features.

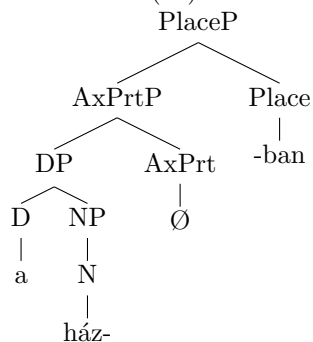
In the following paragraphs I look at how this applies to the data presented in Section 2.2.1. As stated in Chapter 1, I assume that vocabulary insertion takes place late, after spell-out. Thus the syntax always deals with structures such as that in (49), containing categorial information and  $\phi$ -features. For ease of reference in illustrating the detailed structures of specific Hungarian PPs, however, I represent trees with the lexical material under the categorial label of the terminal nodes. For those nodes that are assumed to fuse with another in the morphological component, so that no separate vocabulary item is inserted, I leave the  $\emptyset$  symbol. Agreement features and agreement morphemes are separated by square brackets in the structural representations.

**Cases** The structure underlying the spatial cases involves a projection of Axial Part that is phonologically empty but syntactically present. This is combined with Place, and in some situations Path. The case itself spells out the Place or Path head ((50)-(51) and (52)-(53)), which merges with the Axial Part.

- (50) Hungarian case marked noun spelling out PlaceP

a ház-ban  
 the house-INESS  
 ‘in the house’

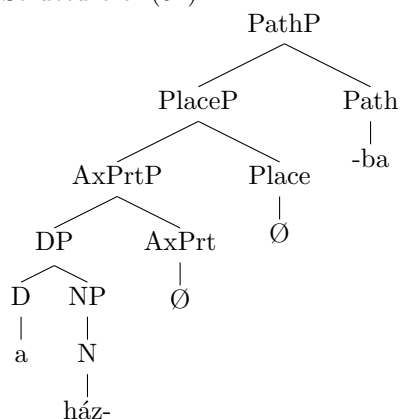
(51) Structure of (50)



(52) Hungarian case marked noun spelling out PathP

a ház-ba  
 the house-ILL  
 'into the house'

(53) Structure of (52)



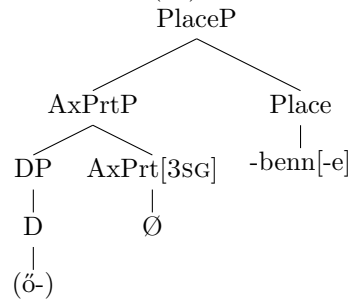
The pronoun enters into a checking relation with Axial Part from its base position because its person and number agreement features are weak. The agreement is a result of Axial Part in the syntax, but appears following the case in the morphological component because there is no phonological material in Axial Part for the agreement morpheme to attach to. The third person pronoun is analysed as D. Further discussion of the syntactic status of Hungarian and other pronouns follows in Chapter 4. Thus the pronominal use of the cases in (50)-(53) are as in (54)-(57). The agreement morpheme is represented in square brackets.

- (54) Hungarian case marked pronoun spelling out PlaceP

(ő)-benn-e  
3SG-INESS-3SG

‘in him/her’

- (55) Structure of (54)

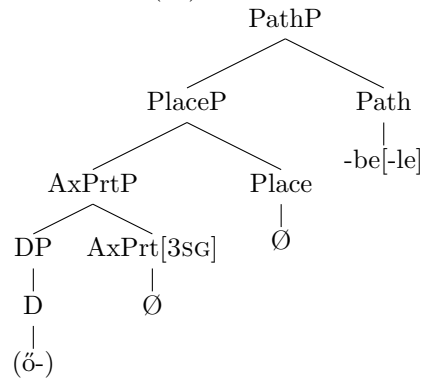


- (56) Hungarian case marked pronoun spelling out PathP

(ő)-be-le  
3SG-ILL-3SG

‘in him/her’

- (57) Structure of (56)



It remains a problem why the full noun does not induce overt agreement on Axial Part in cases such as (50)-(53).

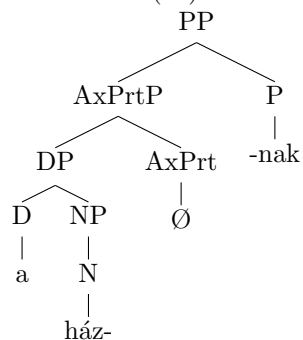
I assume that cases without spatial meaning have structures involving a simple PP and Axial Part, as in (58)-(59) (as opposed to the complex Path and Place combinations of spatial expressions).

- (58) Hungarian case marked noun spelling out PP

a ház-nak  
the house-DAT

‘to/for the house’

(59) Structure of (58)

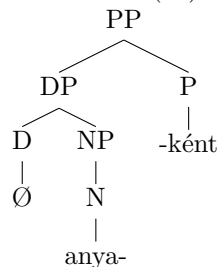


Those cases which do not agree with the pronoun are simple Ps without a projection of Axial Part, as in (60)-(61). These cases lack a pronominal form.

(60) Hungarian non-agreeing case

anya-ként  
 mother-ESS  
 ‘as a mother’

(61) Structure of (60)



The cases are spelt out as part of the same phonological word as the noun because they are phonologically weak. Vocabulary insertion occurs after spell-out, in the morphological component, and at this point those items that must lean on another item are joined to an appropriate host.

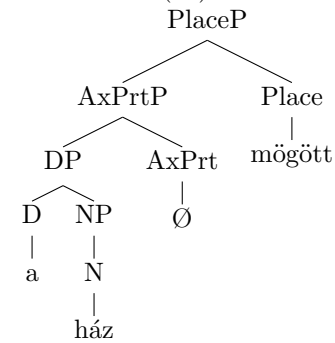
**Inflecting postpositions** The analysis of the syntax of inflecting postpositions is similar. Those with frozen case suffixes (47) are, like the cases themselves, situated in Path, Place or P, above an empty Axial Part. This is illustrated with a locative postposition in (62)-(63) and a directional postposition in (64)-(65).

- (62) Locative inflecting postposition

a ház mögött  
 the house.NOM behind

‘behind the house’

- (63) Structure of (62)

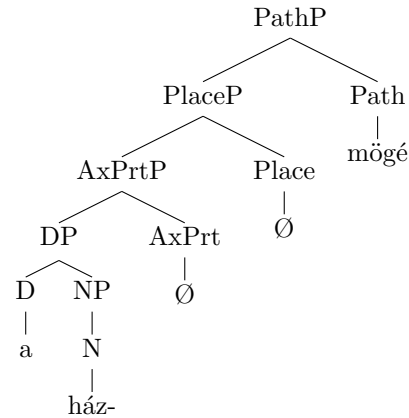


- (64) Directional inflecting postposition

a ház mögé  
 the house.NOM to.behind

‘to (the place) behind the house’

- (65) Structure of (64)



Those postpositions with inflection before the case ending (48) are syntactically complex, with the case being inserted in a P projection and the head of the word in Axial Part, as in (66)-(67). Again, the square brackets section off the agreement from the spell-out of terminal nodes.

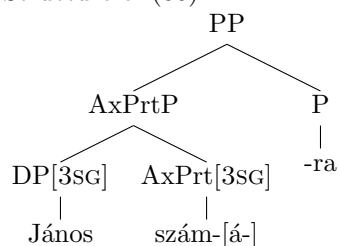


- (66) Inflecting postposition with agreement followed by case ending

János szám-á-ra  
 János.NOM part-3SG-SUBL

‘for John’s part’

- (67) Structure of (66)



Inflecting postpositions and cases are both syntactically Ps in the analysis above. The inflecting postpositions contrast with the cases in having more phonological content inserted at vocabulary insertion. They therefore surface as independent words. They are inseparable from the noun in syntax because there is no available position for a modifier to intervene between the noun and the postposition.<sup>11</sup> The demonstrative exhibits concord with both cases and postpositions because it raises from the specifier of D to the specifier position of the P projection, following the mechanism in Carstens (2000), described in Chapter 1, as illustrated in (68)-(69).

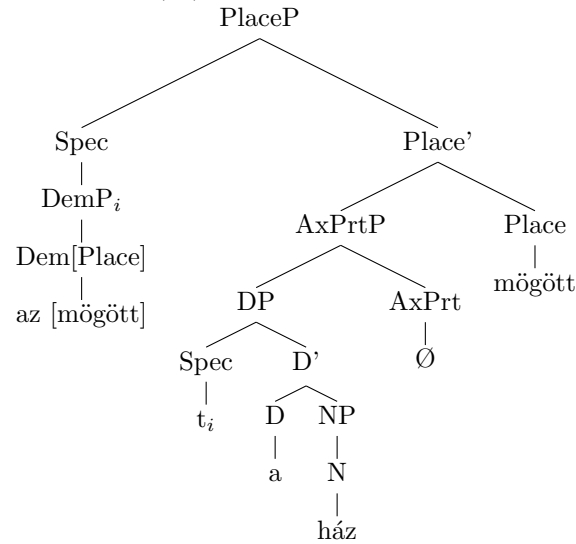
- (68) Demonstrative agreement

a mögött a ház mögött  
 the behind the house behind

‘behind the house’

<sup>11</sup>The modifier cannot be inserted in AxPrtP or PlaceP as these are not lexicalised. The modifier is clearly modifying Path.

(69) Structure of (68)

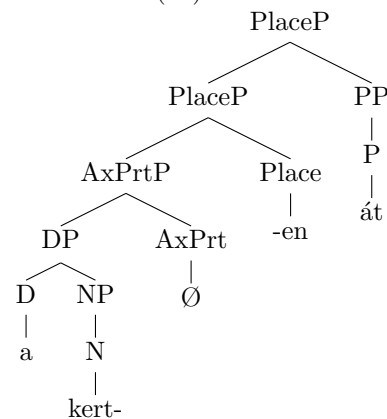


**Non-inflecting postpositions** Non-inflecting postpositions differ from cases and inflecting postpositions in that they are not directly in the extended projection of the noun, but are rather modifiers of Place or Path in adjunct position, as shown in (70)-(71).

(70) Non-inflecting postposition

a kert-en át  
 the garden-SUP across  
 ‘across the garden’

(71) Structure of (70)



The non-inflecting postpositions therefore do not take direct DP complements. They are better thought of as intransitive Ps, in the sense of Emonds (1976), in an adjunct position.

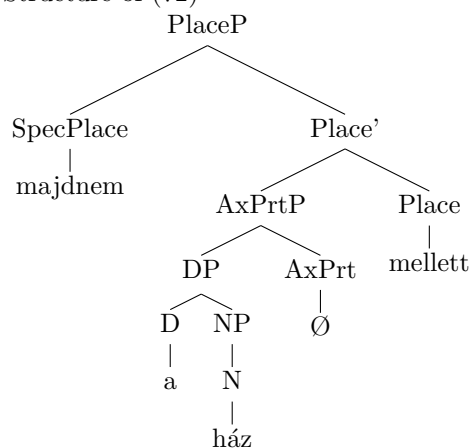
The adjunct position of the non-inflecting postpositions, contrasted with the position of cases and inflecting postpositions directly in the projection line of the noun, explains their lack of agreement with the pronoun and separability from the object. Modifiers such as *majdnem* ('almost') cannot intervene between the noun and case or inflecting postpositions, but can intervene between the noun and non-inflecting postposition, because *majdnem* occupies a specifier position, as illustrated in (72)-(73) and (74)-(75).

- (72) Modification of inflecting postposition with *majdnem*

(majdnem) a ház (\*majdnem) mellett  
 (almost) the house.NOM (almost) near

'almost by the house'

- (73) Structure of (72)

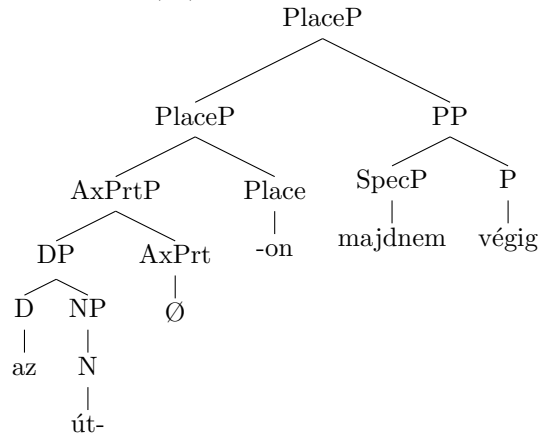


- (74) Modification of non-inflecting postposition with *majdnem*

az út-on majdnem végig  
 the road-SUP almost to.the.end

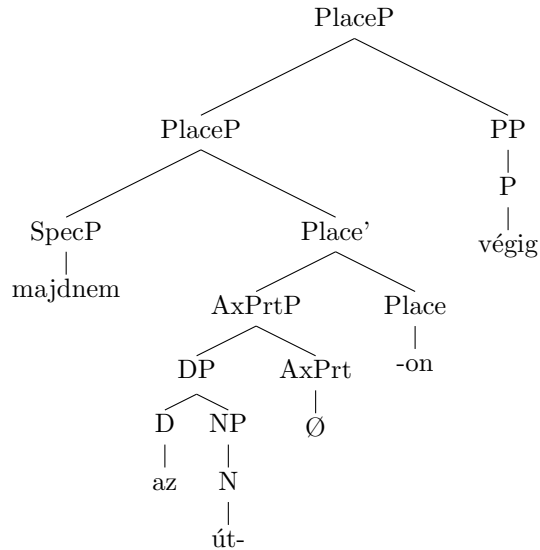
'almost to the end of the road'

(75) Structure of (74)



When *majdnem* precedes the noun, I assume that it is in the specifier of PlaceP, as in (76).

(76) Structure of non-inflecting postposition with modifier in PlaceP



Note that this would be similar to English expressions with a modifier, a particle and a preposition, as in (77).

(77) English modifier, particle and preposition  
right up into the air

Here, similarly, *right* could be understood as modifying *up* or *into* without resulting in clearly distinct interpretations.

Thus many of the differences between cases and inflecting and non-inflecting postpositions follow from the proposed structures, maintaining a unified cate-

gorial analysis for the different items as P. The following discussion addresses the remaining differences.

**Summary** I have analysed Hungarian cases, and inflecting and non-inflecting postpositions as items inserted in P projections in syntax. The differences in pronominal agreement (23) reduce to the presence or absence of Axial Part, most cases and inflecting postpositions being associated with an Axial Part projection. Concord of the demonstrative with the case or postposition (24) is analysed as raising of the demonstrative to the specifier of the PP to check P-features (69). Intervention of degree modifiers between the object and the case or postposition (25) is ruled out because the object is in a complement position of the P or Axial Part head and the degree modifier is in a specifier position, necessarily preceding the object (73). On the other hand, it is able to intervene between the noun and the non-inflecting postposition because the latter is in an adjunct position, making its own specifier position available as an intervening position (75). The greater freedom of the non-inflecting postpositions in adjunct position, as compared to the cases and inflecting postpositions in complement position explains the differences in preposing (26). Vowel harmony (27)-(29) is related to the amount of phonological material inserted at vocabulary insertion, monosyllabic Ps being phonologically dependent and taking the noun as host, whilst polysyllabic Ps form independent phonological words. This same mechanism also results in the prohibition on ellipsis amongst case marked nouns (33), contrasting with its acceptability with phonologically independent postpositions (32). Since the use of the adjectival suffix *-i* (30) and combination with sublative and delative suffixes (31) are restricted even amongst the postpositions, I assume that such combinations must be lexically specified for each item.

A few phenomena remain unexplained. Most problematic is the fact that cases and inflecting postpositions agree with the pronoun but not the full noun. The agreement pattern looks similar to the possessive agreement on nouns and the verbal agreement paradigm, but possessed nouns agree with possessor nouns as well as possessor pronouns, and verbs agree with subject nouns as well as subject pronouns (78).

(78) Hungarian nominal agreement with nouns and pronouns

az ő / anya táská-ja  
the 3SG.NOM / mother.NOM bag-3SG

‘her/mother’s bag’

(79) Hungarian verbal agreement with nouns and pronouns

a. Ő / A gyerek olvas egy könyv-et.  
3SG.NOM / the child.NOM read.3SG a book-ACC  
‘He / The child is reading a book.’

b. Ők / A gyerek-ek olvas-nak egy könyv-et.  
3PL.NOM / the child-PL.NOM read-3PL a book-ACC  
‘They / The children are reading a book.’

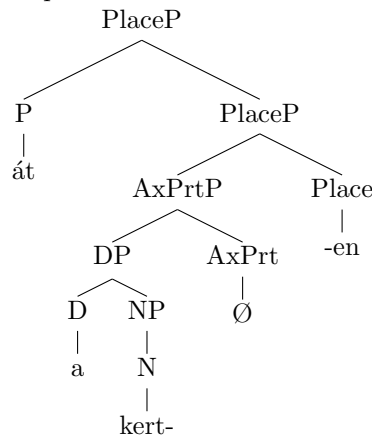
The restriction of agreement to the pronoun appears to be unique to case and postposition agreement. There is nothing in the structural analysis that directly determines this. Given that Axial Parts cross-linguistically appear to behave as a hybrid category between P and N. It seems that this may be part of a more general pattern amongst Axial Parts.

The greater freedom of the non-inflecting postpositions in terms of preposing (26) is incompletely analysed here. Its ability to appear before the noun as well as after it may follow from the adjunct position, on the assumption that adjuncts can appear freely to right or left of the head. The proposed structure would then be the one in (80)-(81).

(80) Preposed non-inflecting postposition (cf. (71))

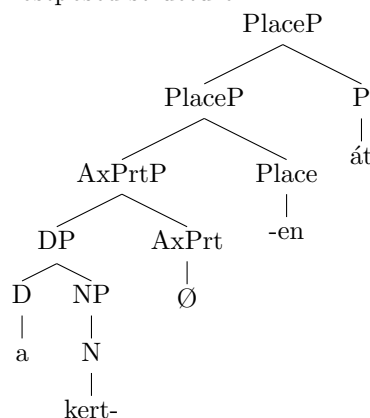
(át) a kert-en (át)  
 across the garden-SUP across  
 ‘across the garden’

(81) Preposed structure



The postposed structures would be as in (82).

(82) Postposed structure



It is worth noting, however, that certain additional interpretational constraints hold, such that many non-inflecting postpositions with both spatial and temporal interpretations can only receive the temporal interpretation in postposition (Huba Bartos, p.c.), as illustrated in (83).

(83) Preposing of spatial and temporal non-inflecting postpositions

- a. (át) a kert-en (át) / (\*át) két hét-en (át)  
 across the garden-SUP across / during two week-SUP during  
 ‘across the garden’ / ‘over two weeks’
- b. (belül) a ház-on (belül) / (\*belül) egy ór-án (belül)  
 inside the house-SUP inside / within one hour-SUP within  
 ‘inside the house’ / ‘within one hour’
- c. (túl) a ház-on (túl) / (\*túl) nyolc nap-on (túl)  
 over the house-SUP over / over eight day-SUP over  
 ‘over the house’ / ‘over eight days’

Furthermore, the preposing phenomenon appears to be associated with emphatic use of the postposition. This may indicate that the postposition in fact raises to a higher focus projection in the examples in (83). Since this does not immediately impinge on the analysis of the cases on a parallel with the inflecting postpositions, I do not investigate this further. The occasional acceptability of sentences in which the inflecting postposition is separated from the noun, the noun appearing with dative case (46) also remains problematic.

One might ask why the non-inflecting postpositions always seem to appear with specific cases, and not with inflecting postpositions, since these have identical syntactic structures. The combination of these cases with postpositions must be partially determined in the lexicon, the lexical entry of the case stipulating which postpositions can modify it, if any, since this seems to be quite restrictive. For example *át* (‘over, across, during’), *alul* (‘below, under’), and *belül* (‘within, inside’) combine with superessive *-on/-en/-ön* (‘on’), and *közel* (‘near’) and *képest* (‘compared to’) appear with allative *-hoz/-hez/-höz* (‘to’). Note, however, that the idea that non-inflecting postpositions only combine

with cases may be erroneous, overlooking combinations of the two types of postpositions such as those in (84).

(84) Hungarian non-inflecting and inflecting P (Hegedűs 2006a:230)

át a híd alatt  
through the bridge under

‘through under the bridge’

Here it seems that *át* must appear before the noun,<sup>12</sup> unlike when it appears with case, where the neutral position is following the noun, as shown above. Thus the ordering remains a problem, but this does suggest that there is no special relationship between the non-inflecting adpositions and the cases that would lead one to assume that they were assigners of case.

To conclude, in this section, working from the claim that Hungarian cases and postpositions belong to the category P, I have integrated them into structures recently proposed in the literature on PP. I have shown that the differences between non-inflecting postpositions on the one hand, and inflecting postpositions and cases on the other, follow from structural differences, the non-inflecting postpositions occupying an adjunct position, whereas the others occupy head positions in the extended projection of the noun. I maintain that all of these items belong to the same category P, since all may exhibit the same internal structure. I have further argued that differences between cases and postpositions follow from processes in the morphological component, and are not syntactic in nature.

### Previous treatment

In this section I give an overview of some previous perspectives on the Hungarian data, and show that the proposal here is an improvement. Case suffixes and postpositions have been distinguished in various different ways. É. Kiss (2002) claims that case suffixes and inflecting postpositions arguably represent Case, whilst non-inflecting postpositions are adverbs, which she regards as a separate part of speech category. Marác (1989) claims that case suffixes realise underlying syntactic Case, whereas inflecting and non-inflecting postpositions realise the category P.

É. Kiss proposes that the non-inflecting postpositions be separated from inflecting postpositions and case suffixes on the grounds that non-inflecting postpositions are adverbs. Kiefer (1987) also argues that a number of the suffixes here considered as case suffixes should be treated instead as derivational adverb-forming suffixes, on the grounds that they are not selected by any predicate. The suffixes concerned are: *-nként* (distributive, ‘per’), *-stul/-stül* (sociative, ‘with’), *-képpen* (‘as’), *-kor* (temporal, ‘at’) (Kiefer 1987:100). I avoid making a division on the basis of a distinction between adverbs and postpositions for two reasons. Firstly, any of the four lexical categories can head adverbial phrases in many languages, as illustrated for English in (85).

<sup>12</sup>Such structures are compared to German circumpositions in van Riemsdijk (1990).



- (85) Different categories as adverbials
- a. Noun in adverbial use  
Let's meet **Tuesday** and talk about it.
  - b. Adjective in adverbial use  
John ran **quickly**.
  - c. Preposition phrase in adverbial use  
They ate the picnic **on the grass**.

This suggests that adverbial status is a question of syntactic position rather than part of speech category, the adverbials being in adjunct positions in the verbal projection, and thus contrasting with objects in complement positions and subjects in specifier positions, as suggested in my analysis. Secondly, several of the cases and postpositions can appear on both adverbials and obligatory arguments, as illustrated in (86) and (87) (repeated from the discussion on  $\theta$ -roles in Chapter 1).

- (86) Inessive case on adverbs and arguments (Hungarian)

- a. Inessive on argument  
Két-emeletes ház-**ban** lak-om.  
two-storey house-INESS live-1SG  
'I live in a two-storey house.'
- b. Inessive on adverbial  
Géza olvas a kert-**ben**.  
Géza.NOM read.3SG the garden-INESS  
'Géza is reading in the garden.'

- (87) Elative case on adverbs and arguments (Hungarian)

- a. Elative on argument  
A gyerek-ek ki-futottak a terem-**ből**.  
the child-PL.NOM out-run.3PL the classroom-ELAT  
'The children run out of the classroom.'
- b. Elative on adverb  
Csak kíváncsiság-**ből** kérdez-t-em.  
only curiosity-ELAT ask-PST-1SG  
'I only asked out of curiosity.'

Marác argues for distinguishing four separate categories: case suffixes, postpositions, adverbs and verbal modifiers. He invokes a number of morphological rules, recognising no separation between syntax and morphology. The rules that he uses to separate postpositions from case suffixes are rules for adjective formation with the suffix *-i* (30), sublative and delative case marking (31), and ellipsis (32)-(33). As I argue above, these rules cannot be consistently applied to the postpositions, and thus cannot be used as a distinguishing feature of the category. Instead they must be idiosyncratically determined for each lexical entry. Finally, I have argued that vowel harmony and the determination of word groupings must occur after syntactic processing, the case being inserted under the syntactic head P but being phonologically dependent on the

noun. This is also consistent with standard approaches to the verbal domain, where it is assumed that marking of Tense on the verb occurs by raising of the verb.

Thus the present proposal allows for a more consistent view of the postpositions and cases, both in terms of the application of language-internal diagnostics, and in terms of standard reasoning about affixes and words in syntactic theory. The proposal further offers a solution for the differences between the classes, which are stipulated as resulting from category membership in past approaches.

### 2.3 Limitations of the analysis

I have argued that many Hungarian cases can be subsumed under the category P. In Section 2.4.1 I further argue that the analysis extends to similar cases in many languages. This section shows that the Hungarian nominative and accusative cases are not P-cases, on the grounds that they do not pattern with the cases examined above in relation to many of the diagnostics used in 2.2.1. Further analysis of these cases follows in Chapter 4.

The arguments presented in favour of subsuming Hungarian cases under the category P do not apply to nominative and accusative for two important reasons. Firstly, nominative and accusative appear on nouns with a variety of semantic roles, and are more clearly identified with grammatical subject and object respectively. Thus (88) shows nominative on a theme subject (a), a quantity modifier (b), in a non-inflecting postposition phrase (c), on a possessor (d), and in a temporal adverbial (e).

- (88) Lack of semantic consistency in uses of Hungarian nominative
- a. Nominative theme subject  
El-indul-t            a    **vonat**.  
PV-depart-PST.3SG the train.NOM  
'The train departed.'
  - b. Nominative quantity modifier  
Egy **korsó**    sör-t    rendel-t.  
a    mug.NOM beer-ACC order-PST.3SG  
'He/she ordered a mug of beer.'
  - c. Nominative in inflecting postposition phrase  
A **függöny**    mögött talál-t-am    egy ceruzá-t.  
the curtain.NOM behind find-PST-1SG a    pencil-ACC  
'I found a pencil behind the curtain.'
  - d. Nominative possessor  
El-kér-t-em    **Zsuzsa**    toll-át.  
PV-ask-PST-1SG Zsuzsa.NOM pen-ACC  
'I asked for Zsuzsa's pen.'

- e. Nominative in temporal expressions

Minden **nap** / egész **nap** / **vasárnap** tanul.  
 every day.NOM / all day.NOM / SundayNOM study.3SG  
 ‘He/she studies every day/all day/on Sunday.’

Similarly, (89) shows that accusative can be used with direct objects (a) and time (b) and manner (c) adverbials, without any obvious common factor in terms of grammatical function or semantic content.

- (89) Lack of semantic consistency in uses of Hungarian accusative

- a. Accusative direct object

Meleg **ruhá-t** vett-ünk fel.  
 warm clothing-ACC put.PST-1PL up  
 ‘We put on warm clothes.’

- b. Accusative in temporal expressions

Egy **het-et** tölt-ött-ünk a Balaton-on.  
 a week-ACC spend-PST-1PL the Balaton-SUP  
 ‘We spent a week at the Balaton.’

- c. Accusative in manner adverbials

**Nagy-ot** sóhaj-t-ott.  
 big-ACC sigh-PST.3SG  
 ‘He/she gave a big sigh.’

Secondly, the nominative and accusative pronominal forms are strikingly different from other pronominal case and postposition forms, lacking the possessive agreement characteristics that led me to adopt the Axial Part analysis. (90) illustrates this, showing the singular pronominal forms of nominative and accusative, with three semantic case suffixes for comparison. The nominative involves no nominative-specific affixal morphology on the full noun, taken to constitute absence of any projection to house such morphology. The nominative pronoun appears only to encode person and number, with no case marking. The same form can appear optionally preceding the putative P-case forms, if they are used emphatically, but is otherwise not normally used. For example, the first person singular nominative form is *én*, and the form of the first person instrumental pronoun is normally *vel-em* (INSTR-1SG), but is *én-vel-em* for emphasis.

The accusative suffix, unlike putative P-cases, does not form the head of the pronominal, but rather appears as a suffix added to the nominative pronominal form. The simplest forms are the third person forms, nominative *ő* and *ők* (the same pronoun with the regular plural suffix *-k*), which appear with the *-t* suffix in the accusative, *ő-t* and *ők-et* (with a suppletive vowel). This is in stark contrast with the other case forms, where the case, for example dative *nek*, forms the basis, optionally preceded by the nominative form of the pronoun, and obligatorily followed by an agreement suffix like that found in the possessive paradigm. The first and second person pronouns are more complicated. The *-t* suffix, characteristic of accusative third person pronouns and all accusative

nouns in singular and plural, is optional in the first and second person singular. However, there is an obligatory agreement suffix, added to a stem with an apparently epenthetic consonant *-g-*. The first and second person plural have two alternative forms, both regularly used, one based on the nominative form with an agreement suffix and *-t* of the accusative (following the pattern of the singular forms, but with obligatory *-t*), and the other resembling the inessive case *-ban/-ben*, differing from it only in having the additional accusative *-t* after the agreement suffix.

(90) Hungarian pronominal case forms

| Case           | 1SG                    | 2SG                      | 3SG        |
|----------------|------------------------|--------------------------|------------|
| Nom (bare)     | én                     | te                       | ő          |
| Acc -t         | en-g-em-(et)           | té-g-ed(et)              | őt         |
| Dat -nak/nek   | (én-)nek-em            | (te-)nek-ed              | (ő-)nek-i  |
| Instr -val/vel | (én-)vel-em            | (te-)vel-ed              | (ő-)vel-e  |
| Case           | 1PL                    | 2PL                      | 3PL        |
| Nom (bare)     | mi                     | ti                       | ők         |
| Acc -t         | mink-et/<br>bennünk-et | titek-et/<br>bennetek-et | ők-et      |
| Dat -nak/nek   | (mi-)nek-ünk           | (ti-)nek-tek             | (ő-)nek-ik |
| Instr -val/vel | (mi-)vel-ünk           | (ti-)vel-etek            | (ő-)vel-ük |

The accusative is further different from the other cases in being phonologically smaller, in the sense that it only involves the addition of a new syllable with nouns ending in a consonant at the lower end of the sonority hierarchy, where an epenthetic vowel is needed. Nouns ending in a vowel or more sonorous consonant are suffixed directly with *-t*, without adding a syllable to the word. This can be seen in (90), in the difference between third person singular and plural accusative formation, where only the plural accusative requires the formation of a new syllable for the addition of the accusative *-t*. This is also illustrated in (91) for full nouns, where accusative involves only the addition of *-t* when added to a vowel-final noun (a), though it does have a harmonising epenthetic vowel when added to some consonant-final nouns (b-c).

- (91) Hungarian accusative on the noun
- a. Vowel-final noun  
autó-t  
cat-ACC
  - b. Consonant-final noun with back vowel  
ház-a-t  
house-EPV-ACC
  - c. Consonant-final noun with front vowel  
könyv-e-t  
book-EPV-ACC

Other cases, by contrast, are full syllables, involving at least an onset (illative

*-ba/-be* ‘in,’ translative *-vá/-vé* ‘into’) or coda (superessive *-on/-en/-ön* ‘on,’ terminative *-ig* ‘as far as’) with a vowel (CV or VC), and both for certain cases (dative *-nak/-nek*, inessive *-ban/-ben* ‘in’).

Accusative does undergo demonstrative concord like the other cases, but this is not restricted to the cases, since it also applies to number. (92) shows demonstrative agreement for both accusative and number.

- (92) Demonstrative agreement
- a. Accusative singular  
*az-t a ház-at*  
 that-ACC the house-ACC  
 ‘that house’
  - b. Accusative plural  
*az-ok-at a ház-ak-at*  
 that-PL-ACC the house-PL-ACC  
 ‘those houses’

Nominative and accusative are thus excluded from the P-case analysis on the grounds that they do not share the semantic and morphosyntactic properties which make the other cases similar to postpositions. Chapter 4 presents an alternative analysis of nominative and accusative based on cross-linguistic evidence.

## 2.4 Theoretical implications

Subsuming many cases under the category P has consequences for Case Theory and for theories of adpositions. Section 2.4.1 discusses the cross-linguistic applicability of the analysis given for Hungarian. Section 2.4.2 re-examines the status of the category P in the light of the present analysis.

### 2.4.1 Cross-linguistic applicability

This section extends the analysis of Section 2.2 beyond Hungarian. Although the surface similarities between cases and adpositions in Hungarian are unusual in a cross-linguistic perspective (cf. Iggesen 2005 for the claim that it is far from unique in this respect), I argue that the underlying analysis should be extended to other languages where the similarities are less apparent. This is important from a conceptual perspective, in the interests of recognising cross-linguistic parallels. If the above analysis were taken to apply uniquely to Hungarian, with spatial cases in languages such as Finnish or Latin forming a separate category from adpositions, then this would entail that there exists a category in Finnish and Latin which remains completely unused in Hungarian, the category of spatial cases. Furthermore, this analysis would be based not on the absence of Finnish and Latin parallels to the types of Ps (affixes and postpositions) in Hungarian, but on the basis of the absence in Finnish and Latin of a middle ground such as that seen in Hungarian, involving elements which exhibit both

phonologically dependent behaviour, like the Hungarian cases when they are added to a full noun, but also independent behaviour, like the same cases in a non-emphatic pronominal context. In empirical terms, the extension of the analysis also appears to be validated by research into various different languages, as noted in the introduction to this chapter.

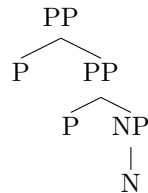
It is worth including a speculative note on the issue of adpositions which are standardly analysed as *assigning* case to the noun, as in (93), where dative is found on the noun in PP.

- (93) Latin preposition with ablative case

in urbe  
 in city.ABL  
 ‘in the city’

Given the structural analysis of cases here, I do not assume that the morphological case seen has anything to do with a syntactically assigned Case, since I attach the cases to head positions in the extended projection of the noun. The simplest possibility, in the context of the present proposal, is that the case on the noun belongs to the category P and forms part of the complex PP structure adopted above, the adpositional P *in* selecting for the P-case, ablative, in the structure in (94), *in* being inserted in the higher P, and the fused form *urbe* being inserted in the lower PP.

- (94) Structure of (93)



The existence of compound adpositions such as English *into* and *onto* is clearly established. It has become apparent that similar case combinations occur, as in Lezgian (95).

- (95) Lezgian case combinations

- a. Simple locative case  
 sew-re-**w**  
 bear-OBL-ADESS  
 ‘at the bear’
- b. Complex case, directional selecting locative  
 sew-re-**w-a-j**  
 bear-OBL-ADESS-ELAT  
 ‘from the bear’

On this basis, combinations of P-cases and P-words should be equally possible.

Note also that in many European languages, including German (96), there is

an alternation between two cases for the same adposition, resulting in meaning differences (see Zwarts 2005, van Riemsdijk 2007, Lestrade 2006; to appear, for thorough analyses of the relevant phenomena from different perspectives).

(96) German case alternation with constant preposition

- a. auf **den** Hügel  
onto the.ACC hill  
'onto the hill'
- b. auf **dem** Hügel  
on the.DAT hill  
'on the hill'

In the analysis of Hungarian above I argue that dative is amongst the P-cases, but that accusative is not. There do seem to be arguments for analysing dative but not accusative as involving extra structure above the noun in German as well (Bayer et al. 2001). Thus the dative with a preposition may involve a complex PP structure, but the accusative does not. Further discussion of the alternation is postponed for Chapter 4, where the analysis of accusative case is presented.

Given that certain cases do not seem to fit into the P-analysis, as with Hungarian nominative and accusative above, the application must clearly be treated on a case by case basis. Note for example that arguments for treating the German dative as P do not necessarily carry over to dative even in related languages, as at least some instances of Icelandic datives suggests that they must be DPs (Svenonius 2005), falling under my analysis in the coming chapters. Although examination of individual cases is necessary, for the conceptual arguments present, it seems likely that the analysis can be carried over to other languages.

## 2.4.2 Status of the category P

*Boundaries of the category P* It is not always clear which linguistic elements should be considered members of the category P and which should be excluded. Having just argued for the expansion of the category to include many cases in different languages, it is worth including a word on the basis for limiting such reanalysis. Estimates as to the number of prepositions in English vary greatly. The range of English prepositions receiving attention in generative syntax is relatively narrow, though the boundaries of the category are still controversial. The P-status of small spatial prepositions such as *in*, *on*, *to* and *into* is generally accepted, whereas the classification of those words and phrases derived from other categories is not so obvious. (97) illustrates the likeness between some Ps and nouns.

(97) Ps with nominal characteristics

- a. on top of
- b. beside

Such elements have been analysed above as members of P, filling an Axial Part projection, in line with recent literature on the subject, on the basis that they do not behave fully like nouns.

(98) gives examples of the superficial likeness between certain prepositions and verbs.

- (98) Prepositions with verbal characteristics
- a. regarding
  - b. considering
  - c. following

Similarly, some prepositions seem to relate to adjectives (Maling 1983). For example, *near* is ambiguous between a preposition and an adjective, being preposition-like in being able to combine directly with a noun, but adjective-like in being able to form a comparative, as shown in (99).

- (99) Preposition with adjectival characteristics
- a. near (to) the house
  - b. nearer (to) the house

The identity of certain English prepositions and complementisers (100) also led Emonds (1984; 1985) to propose the conflation of the two categories.

- (100) Identical prepositions and complementisers
- a. They headed **for** the hills.
  - b. It would be a good idea **for** John to do this.

It has also been debated whether particles (101) can be considered members of the same category as prepositions.

- (101) Particles
- a. John phoned Mary **up**.
  - b. Mary turned **down** the job offer.

Emonds (1972) argues for treating them as intransitive prepositions, whereas van Riemsdijk (1978) argues that a distinction can be maintained, with true intransitive prepositions having a more literal meaning, and particles a more idiomatic interpretation, also finding syntactic differences based on Dutch data. Here particles are treated as members of the category P which differ from the so-called 'transitive' prepositions in that they occupy adjunct positions.

A distinction should be drawn between derivational processes which relate semantically and formally similar words and the types of semantic and formal similarity used in Section 2.2.2 above as an argument for subsuming cases under the category P. Examples of derivational processes are English *run*, which can be a noun or a verb, and pairs such as *high* and *height*. In these instances there is a clear categorial difference, also resulting in a clear semantic difference, in spite of the similarity (102).



- (102) *Run* as verb and noun
- a. He has run a long way today. (V)
  - b. He went on a long run today. (N)

*Run* (V) denotes the activity of running, whereas *run* (N) denotes an event in which someone engages in the activity of running. A word such as *up*, however, does not undergo such a change of meaning in the transition from being a preposition (*up the hill*) to being a particle (*go up*). Instead, the difference is the way in which *up* relates to the rest of the sentence, the preposition denoting the path with respect to a specific place, *on the hill*, and the particle denoting the path which specifies the action. Thus the difference is contributed by the other parts of the sentence, not by a derivational difference in *up* itself.

Even under the view that roots are inserted without categorial labels and that all derivational processes (like *run* V/N, *high/height*) take place in syntax (cf. Halle and Marantz 1993, Marantz 1997), the relation between particles and adpositions can still be viewed as distinct under the present proposal. The zero derivation process from *run* (V) to *run* (N), for example, would require addition of nominal structure to form a noun, and verbal structure to form a verb. Under the present proposal an adposition would be formed on insertion with the requisite syntactic structure. The term *particle* is a functional description, rather than a categorial one. Like adverbs, several different categories can be used as particles, often having the effect of making the event resultative or telic (103). *Flat*, in interacting with aspect in this way, is no less an adjective than when it is used predicatively or attributively (104).

- (103) Particles of different categories
- a. He hammered the metal **flat**.
  - b. He handed the article **in**.
- (104) *Flat* as adjective
- a. The metal was **flat**.
  - b. **flat** metal

In the same way, particles derived from adpositions are no less members of the category P.

***Inherent and quirky Case*** Viewing postpositions and cases as one category allows for the possibility that quirky case assigners are a subset of those predicates selecting for a particular adposition. Thus the same mechanisms that explain PP-verb phenomena (such as English *count on*, *believe in*) also account for so-called inherent and quirky case objects, such as those exemplified in (105).

- (105) Idiosyncratically selected Hungarian object cases
- a. Nagyon hasonlít az anyjához.  
much resemble.3SG the mother-ALL  
'She resembles her mother very much.'

- b. Sokáig gondolkoz-ott az ügy-ön.  
 long think-PST.3SG the matter-SUP  
 ‘She thought about the matter for a long time.’

Although this does not provide a complete explanation for such phenomena, it does suggest that the solution can be reduced to one explanation for cases and adpositions.

**KP** Previous work on KP sometimes suggests that this projection might be filled by a preposition in certain languages (Bittner and Hale 1996, Bayer et al. 2001 among others). Similarly, work on adpositions (Svenonius to appear a, van Riemsdijk and Huybregts 2001) sometimes suggests that Ps could be spelt out as case suffixes on the noun. However, such research does not address the question of whether the two categories can be collapsed into one. The analysis in this chapter represents a challenge to the idea that both are necessary. On the basis of the arguments above, I assume that suffixes and both postposition types realize one syntactic category P. Inherent/lexical case, or the labels K or C could be equally applicable. I do not recognize a division between these categories. In Chapters 3 and 4 I argue that those cases which cannot be equated with the category P can be linked to other independently needed projections of the noun.

McFadden (2004) analyses adpositions and semantic cases in a rather similar way, arguing that both may be the spell-out of P projections in the syntax. However, McFadden’s solution differs from that presented here in that he also claims that both adpositions and cases can be the spell-out of underlying syntactic Case that has no projectional status. (McFadden argues against projectional status of KP separate from PP). I delay further discussion of this until Chapter 3, where I provide an alternative analysis of Finnish PPs, and to Chapter 5, where I give further details on how my approach covers the same ground without relying on Case as a primitive.

## 2.5 Conclusion

I have argued that many semantic cases formerly analysed as the spell-out of lexical or inherent Cases should be reanalysed as members of the category P, on a par with many adpositions. I have argued that a clear division between these categories cannot be maintained at the morphological level, and that structures proposed for adpositions can account for otherwise puzzling similarities amongst cases and adpositions, such that the P-analysis is more consistent for these elements. I have argued that under this view it no longer makes sense to talk about case *assignment* with respect to these cases: instead they form part of the extended projection of the noun, specifying its semantic role in the sentence. Taken in conjunction with the claims in Chapters 3 and 4, the present analysis results in the elimination of one theoretical primitive, splitting the category case between the independently needed categories P, D and  $\phi$ .

## CHAPTER 3

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### Genitive, partitive and the category D

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#### 3.1 Introduction

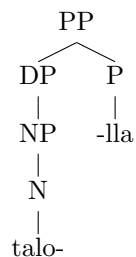
In Chapter 2 I argue that many morphological cases spell out projections of the category P, following Grimshaw (2000) in taking this category to be an extended projection of the noun. A simple example from Finnish appears in (1)-(2).

- (1) Finnish adessive as a P-suffix

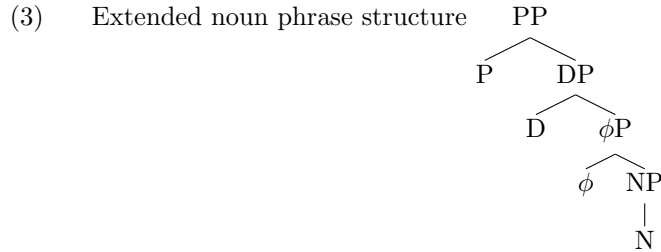
talo-**lla**  
house-ADESS

‘at the house’

- (2) Structure of (1)



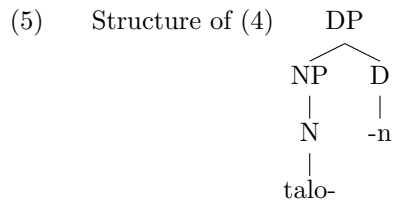
I propose to work towards a view of case whereby different groups of cases can be reanalysed as belonging to a functional projection of the noun, the spatial and semantic cases to P, the partitive and genitive to D, and accusative variably to D or  $\phi$  within the extended noun phrase structure in (3).



This chapter makes the next step in the direction of this goal, arguing that genitive and partitive cases spell out D, as in (4)-(5).

- (4) Finnish genitive as a D-suffix

talo-**n**  
house-GEN  
  
'the house's'



The main analysis is presented with Finnish data, since Finnish is in several respects like Hungarian in terms of the P-cases, but additionally has separate partitive and genitive cases. I then make suggestions for extensions to other languages.

The structure of the chapter is as follows. Section 3.2 develops the proposal that Finnish genitive and partitive are D-cases. Section 3.3 shows how combinations of D-cases and P-cases work under my approach. Section 3.4 sets the chapter in its theoretical context, examining the nature of D in more detail, investigating how it differs from the P layer and why the structural or inherent status of the associated cases has appeared controversial in past research. Section 3.5 concludes the chapter.

## 3.2 Finnish genitive and partitive as D-cases

The Finnish genitive *-n* (with variants *-den*, *-ten*, and a few others) and partitive *-a/-ä* (with variants *-ta/-tä* and *-tta/-ttä*) alternate with one another on nouns in object position, under semantically constrained conditions. The partitive otherwise appears in certain quantified constructions, and is unlike other cases in that it alternates regularly with non-partitive (nominative, accusative and genitive) arguments of the verb. It emerges in contexts where one would expect to see morphological nominative or accusative in other languages and structural syntactic Case according to standard approaches, but its distribution

appears to be semantically constrained. The genitive is the possessor case, and is also the case which alternates with the partitive object on full nouns with many verbs. The basis for establishing a connection between these cases and the determiner layer is their use in contexts such as those in (6)-(7). In (6), the partitive case contributes an interpretation rather like that of an indefinite determiner or a negative polarity item.

- (6) Finnish partitive objects
- a. Purki-ssa on leipä-ä.  
tin-INESS be.3SG bread-PART  
'There is bread in the tin.'
  - b. Silja joi maito-a.  
Silja drink.PST.3SG milk-PART  
'Silja drank milk.'
  - c. Silja e-i juonut maito-a.  
Silja NEG-3SG drink milk-PART  
'Silja did not drink (the/any) milk.'

By contrast, the genitive has an interpretation more like a definite determiner, signaling limited quantity in (7).

- (7) Finnish genitive objects
- Silja joi maito-n.  
Silja drink.PST.3SG milk-GEN  
'Silja drank the milk.'

It should be noted that my use of case names here differs slightly from standard grammars of Finnish, which treat the *-n* suffix on nominal objects of verbs as *accusative*, on the basis that the pronominal object in the same context has a unique object marking *-t* (Karlsson 1999). I do not take this view, assuming it is genitive because it is identical to the possessive genitive case, as in (8).

- (8) Genitive of possession
- a. Mari-n talo  
Mari-GEN house  
'Mari's house'
  - b. koir-i-en talo  
dog-PL-GEN house  
'the dogs' house'

Further justification of this and full discussion of the Finnish core cases, as well as alternative approaches to the divisions between the cases (Vainikka 1993, Kiparsky 2001) appear in Chapter 4. For the purposes of this chapter I focus on the alternation between full nouns with genitive and partitive in object position.

Like the genitive in (8), the partitive in (9) also has a nominal use, appearing in certain quantified expressions.

- (9) Finnish partitive in expressions of quantity (Karlsson 1999:89–90)
- a. vähän maito-**a**  
     little milk-PART  
     ‘(a) little milk’
  - b. kuppi kahvi-**a**  
     cup coffee-PART  
     ‘a cup of coffee’

The effects of partitive (6) and genitive (7) appear to overlap with those of determiners in English. Unlike case suffixes expressing spatial relations, which are argued in Chapter 2 to spell out P-heads, the Finnish partitive and genitive have more in common with quantifiers and determiners. They are more like the suffixal determiners in (10) than like spatial adpositions.

- (10) Definite article suffixes (Giusti 2002:58)
- a. baiat-ul (Romanian)
  - b. djal-i (Albanian)
  - c. momce-to (Bulgarian)
  - d. gutt-en (Norwegian)  
     boy-DEF  
     ‘the boy’

The approach advocated here differs from past accounts, which have taken various different stances on the status of partitive as a structural or inherent Case (Belletti 1988, de Hoop 1992, Vainikka 1993), and emphasised its interaction with aspect (Kiparsky 1998, Kratzer 2004). The genitive in direct object position (7) is standardly analysed as accusative, direct object case, (Karlsson 1999), and is analysed as the default when conditions for partitive are not met (Kiparsky 1998).

Section 3.2.1 lays out the reasons for viewing genitive and partitive as different from the P-cases argued for in Chapter 2. Section 3.2.2 explains in more detail the reasons for analysing both as D-cases instead. Section 3.2.3 gives the structures I assume for them. Section 3.2.4 mentions some other uses of Finnish partitive, involving quantity and aspect, and debates the possibility of a unified account of the case.

### 3.2.1 Genitive and partitive are not P-cases

There are several reasons for viewing genitive and partitive as different from the P-cases in Finnish. Firstly, the P-cases, like those in Hungarian, have more transparent meanings, as can be seen from the list in (11).

## (11) Finnish P-cases

| Case        | 'bear'    | Description            |
|-------------|-----------|------------------------|
| Illative    | karhuun   | to interior            |
| Inessive    | karhussa  | at interior            |
| Elicative   | karhusta  | from interior          |
| Allative    | karhulle  | to exterior            |
| Adessive    | karhulla  | at exterior            |
| Ablative    | karhulta  | from exterior          |
| Abessive    | karhutta  | without                |
| Essive      | karhuna   | as                     |
| Translative | karhuksi  | into (change of state) |
| Comitative  | karhuine- | with                   |

By contrast, it is clear from (6)-(9) that the genitive and partitive are not associated with such contentful interpretations relating to spatial relations or semantic roles, nor with a stable grammatical function.

Genitive and partitive on objects are not selected by the verb (6)-(7), like the putative P-cases selected by the specific verbs in (12).

## (12) 'Inherently selected' cases in Finnish (from Fong 2001:2)

- a. Sointu kehoitti Toini-a laula-ma-an.  
 Sointu encourage.PST.3SG Toini-PART sing-INF-ILL  
 'Sointu encouraged Toini to sing.'
- b. Sointu kielsi Toini-a poltta-ma-sta.  
 Sointu forbid.PST.3SG Toini-PART smoke-INF-ELAT  
 'Sointu forbade Toini to smoke.'

In (12) the illative and elative cases appear to be required by a semantically determined property of the selecting heads.<sup>1</sup> In contrast, the alternation of partitive and genitive with one another and with the nominative and accusative is independent of the lexical content of the assigning head (making them look more like structural Cases in standard terms), yet it is also semantically determined (making them look more like inherent Cases), giving rise to the variety of different approaches to the cases.

### 3.2.2 Basis of the analysis

The main reason for associating genitive and partitive with the determiner level is the change in interpretation under alternations such as the one in (13) for object case, where the partitive is used with a mass noun to show that the quantity is not explicitly limited (a), whereas the genitive is used with limited quantity (b).

<sup>1</sup>The Finnish infinitive behaves like a noun in that it can take certain case forms (Karlsson 1999:182).

- (13) Object case and limited vs unlimited quantity
- a. Partitive, unlimited quantity  
 Silja joi maito-**a**.  
 Silja drink.PST.3SG milk-PART  
 ‘Silja drank **some milk**.’
- b. Genitive, limited quantity  
 Silja joi maido-**n**.  
 Silja drink.PST.3SG milk-GEN  
 ‘Silja drank **the milk**.’

The partitive in this context appears rather like an indefinite determiner, and the genitive like its definite counterpart. This is in keeping with its uses in possessive expressions (8), as Abney (1986) suggests that the Saxon genitive -’s is a determiner, occupying the D position. I suggest that the genitive in Finnish has a similar status to the Saxon genitive, but is used more widely because of the absence of determiners in the language.

Partitive further alternates with nominative subjects (14)-(15), with a similar semantic effect to that in (13). In (14) the partitive is used on a divisible non-count noun to express lack of limitation on the quantity (a), whereas the nominative is used when the quantity is limited (b).<sup>2</sup>

- (14) Partitive subject with divisible non-count nouns
- a. Partitive, unlimited quantity  
 Purki-ssa on leipä-**ä**.  
 tin-INESS be.3SG bread-PART  
 ‘There is **bread** in the tin.’
- b. Nominative, limited quantity  
**Leipä** on purki-ssa.  
 bread be.3SG tin-INESS  
 ‘**The bread** is in the tin.’

With count nouns in the plural (15) a similar effect is found, partitive being used for contexts where no limit is placed on the number (a), and nominative when there is a limit (b).

- (15) Partitive subject with plural count nouns
- a. Partitive, unlimited number  
 Kadu-lla on auto-**j-a**.  
 Street-ADESS be.3SG car-PL-PART  
 ‘There are **cars** in the street.’

<sup>2</sup>For examples such as (14), the situation is complicated by the fact that only nominative subjects appear to trigger agreement on the verb, and by the difference in word order. This suggests that the partitive may not in fact be a subject, but rather that there is a null expletive subject. The important point for the discussion here is the alternation with nominative, rather than subject status.



- b. Nominative, limited number  
**Auto-t** ovat kadu-lla.  
 Car-PL.NOM be.3PL street-ADESS  
 ‘**The cars** are in the street.’

Belletti (1988) shows that there is a connection between the use of partitive case and the definiteness effect found in existential constructions in many languages, as the partitive in Finnish shows up in contexts where a definite noun phrase would be excluded in English and various other languages (16).

- (16) Partitive and the definiteness effect
- a. Finnish partitive object (Belletti 1988:2)  
 Pöydä-llä on kirjo-j-a.  
 table-ADESS be.3SG book-PL-PART  
 ‘There are (some) books on the table.’
- b. Impossibility of English definite object in same context  
 There are (**\*the**) books on the table.

Thus when it comes to mass nouns and plural count nouns partitive seems to be related to indeterminate quantity on subjects and objects, and genitive to limited quantity or definiteness on objects, functions that are carried out by determiners in English.

The partitive can also be linked to another kind of determiner, the negative polarity item, on the basis of its appearance in several negative contexts. In (17), the partitive appears on the subject when the existence of the noun is asserted (a), whereas the subject is a bare nominative when negation is incomplete (b).

- (17) Partitive subject with negation of existence
- a. Partitive for negation of existence  
 Kadu-lla **e-i** ole auto-a.  
 street-ADESS NEG-3SG be car-PART  
 ‘There is **no** car in the street.’
- b. cf. Nominative for non-complete negation  
**Auto e-i** ole kadu-lla.  
 car NEG.3SG be street-ADESS  
 ‘The car is not in the street.’

In (18), the object is obligatorily partitive when the action is negated (a), and genitive in the corresponding positive sentence.

- (18) Object case and negation
- a. Partitive in negative sentence  
**E-n** osta auto-a.  
 NEG-1SG buy car-PART  
 ‘I won’t buy the/any car.’

- b. Genitive object in positive sentence

Osta-**n** auto-**n**.

buy-1SG car-GEN

‘I buy/will buy the car.’

In these contexts the partitive therefore appears rather like a negative polarity item. The use of the partitive in negative contexts (17)-(18) makes the interpretation with respect to quantity of mass and plural count nouns (13)-(15) ambiguous. In (19), (a) shows the effect of partitive in inducing a reading of unlimited quantity in the positive sentence, and (b) shows the ambiguity under negation.

- (19) Object case and limited vs unlimited quantity

- a. Partitive with indefinite quantity/incomplete action

Silja joi maito-**a**.

Silja drink.PST.3SG milk-PART

‘Silja drank **some milk**.’

- b. Partitive object in negative sentence, ambiguous interpretation

Silja **e-i** juonut maito-**a**.

Silja NEG-3SG drink milk-PART

‘Silja did not drink **(the/any) milk**.’

The Finnish partitive of negation also extends to measure phrases, as illustrated in (20). For speakers I consulted the partitive was the only option, as with object nouns under negation. This shows the optional partitive of negation on an adverbial (a), as compared to the genitive on the same adverbial in the corresponding positive sentence (b), and the impossibility of genitive on an object under negation (c).

- (20) Finnish partitive of negation on objects/adverbials (Kiparsky 1998:20)

- a. Time adverbial optionally in partitive in negative sentence

Matti e-i odotta-nut tunti-**a** / tunni-**n**.

Matti NEG-3SG wait-PST hour-PART / hour-GEN

‘Matti didn’t wait an hour.’

- b. Time adverbial in genitive in positive sentence

Matti odott-i tunni-**n** / \*tunti-**a**.

Matti wait-PST.3SG hour-GEN / hour-PART

‘Matti waited an hour.’

- c. Object with obligatory partitive of negation

Matti e-i myy-nyt talo-**a** / \*talo-**n**.

Matti NEG-3SG sell-PST house-PART / \*house-GEN

‘Matti didn’t sell the/a house.’

This is evidence for the idea that the partitive is not *assigned* by the verb, since adverbials are standardly not assumed to be assigned Case by the verb. Evidence that it is also not the negative marker that can assign partitive comes

from contexts such as (21), where the negation is not syntactically present. Kiparsky (1998:21) notes that the partitive can surface in implicitly negative contexts. (21) shows the partitive as the most likely option if the speaker expects a negative answer (a), as compared with the bare nominative used when expecting a positive answer (b).<sup>3</sup>

- (21) Partitive in implicitly negative contexts (Kiparsky 1998:21)
- a. Partitive in question expecting a negative reply  
 On-ko sinu-lla kynä-ä?  
 be.3SG-WH you-ADESS pencil-PART  
 ‘Do you have a pencil?’
- b. Nominative in question expecting positive reply  
 On-ko sinu-lla kynä?  
 be.3SG-WH you-ADESS pencil  
 ‘Do you have a pencil?’

To sum up, genitive and partitive are determiner-like in their alternation in object position on mass nouns and plural count nouns. The idea of genitive being like a definite determiner fits in with the proposal in Abney (1986) for the Saxon genitive that this occupies the D head. Uses of the partitive in negative contexts suggest a function similar to a negative polarity item. It would be an oversimplification to say that genitive is definite and partitive is indefinite. Rather, the two elements seem to encompass a number of different determiner-related functions. The lack of direct equivalence between partitive and indefiniteness, and between genitive and definiteness, is not necessarily an obstacle to treating the two cases as items in the D position. Articles cross-linguistically do not consistently express the definite-indefinite distinction, some languages drawing the line in terms of specificity (as in Tongan, Broschart 1994:16-17) or other related effects. The apparent absence of articles in Finnish may be related to the development of cases with these functions, the underlying syntax being more similar than previously thought to a language such as English with determiners, but with spell-out of those determiners as affixes.

### 3.2.3 Syntactic structure

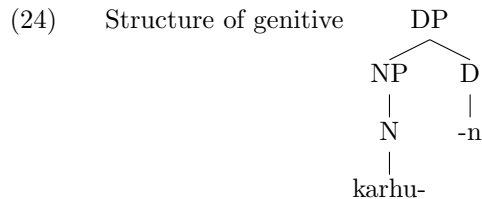
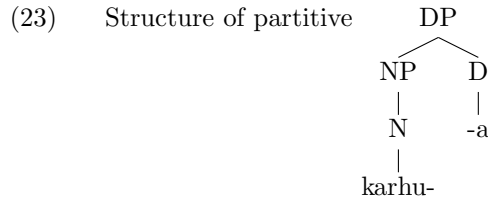
This section presents a sketch of the way in which the distinctive behaviour of the partitive and genitive might be analysed and puts it into its theoretical context. If the category P can be spelt out as an affix on the noun, as argued in Chapter 2, then, by the same logic, other intervening functional heads such as determiners, should also have the potential to appear as inflections on N in some language. This is known to be true of languages such as those exemplified in (22) (repeated from (10) above).

<sup>3</sup>The particle *-ko*, glossed WH is an interrogative marker.

(22) Definite article suffixes (Giusti 2002:58)

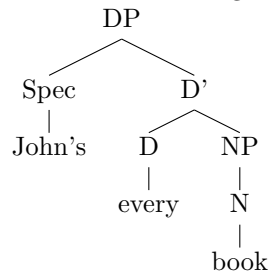
- a. baiat-ul (Romanian)
- b. djal-i (Albanian)
- c. momce-to (Bulgarian)
- d. gutt-en (Norwegian)  
boy-DEF  
'the boy'

I suggest that the apparently anomalous behaviour of the Finnish partitive and genitive can be explained by treating them as D-affixes. Thus the basic structures for Finnish nouns with partitive and genitive (D-cases) would be as in (23)-(24).



Abney (1987) analyses the possessive *'s* in English, proposing that it is in the specifier of D, leaving D free for items such as *every* in *John's every book*. I adopt this view, illustrated in (25).<sup>4</sup>

(25) Structure of Saxon genitive



I propose that the Finnish possessive construction has the same structure, as in (26)-(27).

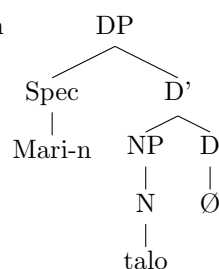
<sup>4</sup>I do not rule out the possibility that the possessor has been moved from another position such as the specifier of NP, or *nP* as in Carstens (2000), but I only represent the possessor in its final position with respect to the noun, since this is the important part for the analysis of genitive.

- (26) Finnish genitive of possession

Mari-**n** talo  
 Mari-GEN house

‘Mari’s house’

- (27) Structure of genitive of possession



The *-n* morpheme is therefore a type of article.

I have suggested that the different behaviour of the partitive and genitive from the P-cases is due to their status as D-cases. The partitive is used when the object is a mass noun of indeterminate quantity, or a plural count noun of unspecified number. The genitive is more like a definite determiner on the object, though not entirely equivalent, as will be seen in the next section. Under this view one might expect the subject also to be genitive, but the regular subject in Finnish is in fact the bare nominative. The reasons for this difference are addressed in Chapter 4, Section 4.5.

One of the controversies over the status of partitive seems to be whether to treat its use in object position as the marked option or the default. Kiparsky (1998) argues for treating it as the marked option, the partitive associating the interpretation with unboundedness, which he considers to be the unifying quality of partitive, involving indefiniteness or unlimited quantity in the noun phrase and atelic aspect in the verbal domain (exemplified in Section 3.2.4). By contrast, de Hoop (1992) treats partitive more like a default, arguing that it is like a bare noun capable of incorporating. The problem with viewing it as bare from a morphological perspective comes from the fact that the nominative clearly appears more bare morphologically, and from a syntactic perspective the nominative emerges in positions where one would expect the less marked item to appear (for example in subject position with a partitive object).

A different structural approach to the genitive and partitive cases appears in Vainikka (1993). Vainikka claims that partitive is the default case of complements and genitive the default case of specifiers. I do not adopt Vainikka’s approach because it makes the Finnish case system appear irreconcilably different from other case systems. Since her claims also concern nominative and accusative, detailed critique of her approach appears in the following chapter.

### 3.2.4 Other uses of the partitive

Partitive has many different uses, and the proposal in the previous section does not account for the many complexities of Finnish quantifier phrases, nor for its

effect on aspectual interpretation, to be described here. In certain contexts, the partitive induces a reading of an incomplete action, as shown in (28).

- (28) Object case and completedness
- a. Partitive, incomplete action  
 Tyttö luki läksy-**ä**.  
 girl do.PST.3SG homework-PART  
 ‘The girl **was doing** her homework.’
- b. Genitive, complete action  
 Tyttö luki läksy-**n**.  
 girl do.PST.3SG homework-GEN  
 ‘The girl **did (i.e. finished)** her homework.’

In (28) the connection with the use of the partitive-genitive alternation as denoting limitation of quantity seems clear, since the quantity of the object affected by the action can be clearly seen to delimit the aspect of the verb. However, (29) shows that this alternation is not limited to incremental objects, such as those in (28), and can affect the interpretation of the action as successful or not. The (a) sentence shows that with verbs such as *shoot* the interpretation is that the partitive object has not necessarily been hit, whereas the genitive object (b) has been hit. In either case, the interpretation as to the definiteness or indefiniteness of the object is ambiguous if the case is interpreted to exert its effect on aspect. For this reason, the partitive cannot be viewed as directly equivalent to an indefinite article, nor genitive to a definite article.

- (29) Case alternation with aspectual function (Kiparsky 1998:2)
- a. Partitive with incomplete action or indefinite quantity  
 Ammu-i-n karhu-**a** / kah-ta karhu-**a** /  
 shoot-PST-1SG bear-PART / two-PART bear-PART /  
 karhu-j-**a**.  
 bear-PL-PART  
 ‘I **shot at** a/the bear / at (the) two bears / at (the) bears.’  
 ‘I shot (**some**) bears.’ (alternative with *karhuja*)
- b. Non-partitive with complete action  
 Ammu-i-n karhu-**n** / **kaksi** karhu-a.  
 shoot-PAST-1SG bear-GEN / two bear-PART  
 ‘I shot a/the bear / two bears.’

The guiding intuition again is that the object noun delimits the action denoted by the verb and thus has an influence on the verb’s aspectual interpretation. When the object is unlimited or unbounded, this therefore has the effect of making the verb aspectually unbounded, and when the object is limited, so is the action.

Karlsson (1999) notes that various verbs, particularly psych-verbs (30), are intrinsically incomplete and obligatorily have partitive objects.

- (30) Psych-verbs, partitive objects obligatory
- a. Rakastan tuo-ta nais-ta.  
love.1SG that-PART woman-PART  
'I love that woman.'
  - b. Pelkäätkö koir-i-a?  
fear.2SG dog-PL-PART  
'Are you afraid of dogs?'
  - c. Säälin hän-tä.  
pity.1SG 3SG-PART  
'I pity him/her.'

Kiparsky (1998) proposes to unite the various uses of the partitive on the basis that partitive involves an interpretation of unboundedness, and in its absence there is a bounded interpretation. Informally described, the notion boundedness relates to limitation on the noun in terms of quantity, or on the verb in terms of completeness. Thus a partitive, when interpreted with respect to the noun, as in (13), results in an interpretation of unlimited (or not explicitly limited) quantity, whereas when it is interpreted with respect to the verb, it results in an interpretation of incompleteness, as in (29). Intuitively speaking, it makes sense to say that the object delimits the verb, and thus that a clearly delimited object (the genitive variety of D) will clearly delimit the event, whereas an open-ended object (the partitive variety of D) leaves the event open-ended. It is, however, unclear how the aspectual use of partitive can be represented in the syntactic structure, or whether it is really a matter for syntax. It therefore goes beyond the scope of the present work to account for the full range of uses of the partitive, and the interested reader is referred to the analyses of de Hoop (1992) and Kiparsky (1998) for a more complete picture.

### 3.3 Spell-out of P, D and $\phi$

This section looks at the mediation between D and P when both occur together. I begin with a brief survey of Finnish Ps, which resemble the Hungarian P-cases and P-words presented in Chapter 2 in many respects. Section 3.3.1 introduces Finnish adpositions and P-cases. Section 3.3.2 looks at how spell-out works when both D and P are filled in syntax, and Section 3.3.3 looks at spell-out of the plural marker *-i-*. Section 3.3.4 then discusses the possibility of finding languages in which all the functional projections on the noun are spelt out together as stacked affixes.

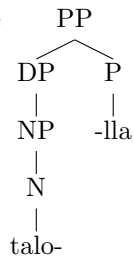
#### 3.3.1 Finnish PP

The Finnish semantic cases are analysed as P-cases, as in (31)-(32).

- (31) Finnish adessive

talo-**lla**  
 house-ADESS  
 ‘at the house’

- (32) P-suffix structure of adessive



Finnish differs from Hungarian in that it has prepositions as well as postpositions, and in that the object of these Ps is not a bare nominative but has either partitive or genitive. Postpositions tend to combine with a noun with genitive (33), whereas prepositions tend to combine with a noun that has partitive (34).

- (33) Postpositions with genitive (Vainikka 1993:136)

- a. talo-**n** takana / edessä / vieressä / alla  
 house-GEN behind / in.front.of / next.to / under  
 ‘behind / in front of / next to / under the house’
- b. Riita-**n** kanssa / takia / jälkeen / mukaan  
 Riitta-GEN with / because.of / after / according.to  
 ‘with / because of / after / according to Riitta’

- (34) Prepositions with partitive (Vainikka 1993:143-4)

- a. ilman sateenvarjo-**a**  
 without umbrella-PART  
 ‘without an umbrella’
- b. ennen aamu-**a**  
 before morning-PART  
 ‘before morning’
- c. vastoin laki-**a**  
 contrary law-PART  
 ‘against the law’

However, this pattern is far from consistent. Examples of prepositions with genitive include *halki* (‘through’), *kautta* (‘throughout’), and *sitten* (‘since’), and the adpositions *päin* and *kohti*, both meaning ‘toward,’ may be either prepositions or postpositions, consistently appearing with partitive regardless of their position with respect to the noun. I assume that this must be lexically specified for each P.

Many Finnish postpositions are diachronically related to nouns, and still have many nominal characteristics, such as having their own fossilised, but still distinguishable, case endings (35), suggesting that an Axial Part projection is



present, as in Hungarian.

(35) Finnish postpositions with fossilised case endings

- a. al-la / al-ta / al-le  
under-ADESS / under-ELAT / under-ALLAT  
'(at/from/to) under'
- b. ede-ssä / ede-stä / ete-en  
front-INESS / front-ELAT / front-ILLAT  
'(in/from/to) the front of'
- c. viere-ssä / viere-stä / viere-en  
by-INESS / by-ELAT / by-ILLAT  
'(at/from/to) next to'

Those Ps combining with genitive also agree with the noun (36), the agreement suffixes resembling possessive agreement.

(36) Finnish postpositions and agreement (Karlsson 1999:225)

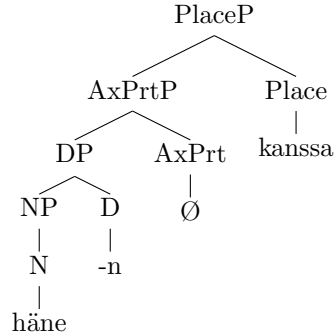
- a. (minu-n) kanssa-**ni**  
1SG-GEN with-1SG  
'with me'
- b. (sinu-n) kanssa-**si**  
2SG-GEN with-2SG  
'with you'
- c. häne-n kanssa-**an**  
3SG-GEN with-3SG  
'with him/her'
- d. (me-i-dän) kanssa-**mme**  
1PL-PL-GEN with-1PL  
'with us'

In view of this nominal behaviour, the structures I envisage for the postpositions with genitive are as in (37)-(38).

(37) Finnish postposition with genitive

- häne-n kanssa-an  
3SG-GEN with-3SG  
'with him/her'

- (38) Structure of postposition with genitive

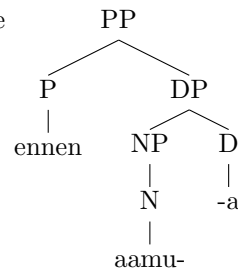


In Finnic languages in general, postpositions are in the majority, and prepositions appear to be a more recent innovation (Grünthal 2003). A relationship between nouns and prepositions is not as clear, so the structure assumed lacks Axial Part, as in (39)-(40).

- (39) Finnish preposition with partitive

ennen aamu-a  
 before morning-PART  
 ‘before morning’

- (40) Structure of preposition with partitive



Some other adpositions combine with nouns with other cases (41), most typically the relative according to Vainikka (1993:135).<sup>5</sup>

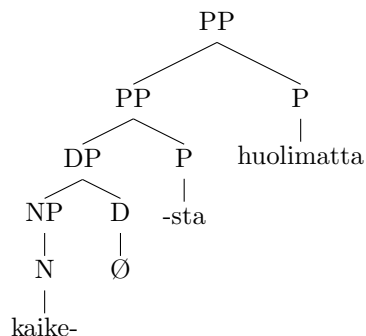
- (41) Finnish adpositions combining with other cases
- 
- Vainikka (1993:135-6)

- a. kaike-sta huolimatta  
 all-ELAT regardless  
 ‘regardless of everything’
- b. piene-stä pitäen  
 small-ELAT since  
 ‘since childhood’

<sup>5</sup>These postpositions are derived from verbs meaning *worry* and *hold* (Riitta-Liisa Valijärvi, p.c.).

I assume that these have a complex P structure, as in (42), the elative being one of the P-cases.

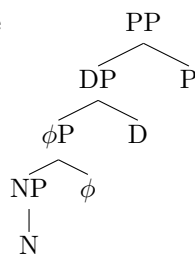
- (42) Structure of Finnish P with elative case (from (41-a))



### 3.3.2 Combining D-cases and P-cases

The noun phrase structure I adopt (43) predicts the possibility of combining affixes spelling out P and D. Since the point of focus here is the mediation between P and D, rather than the internal structure of the PP, in what follows I omit the full range of Path, Place and Axial Part labels from the P structures, simplifying to the label P, as in (43).

- (43) Noun phrase structure



Just as it is possible to construct expressions such as *in the house* in English, or the Finnish preposition and postposition examples in (38)-(40), with separate words, so it should also be possible to construct the same expression with affixes in Finnish, if it relies on the same underlying structure. However, this is not possible with either genitive or partitive, as shown in (44)-(47).

- (44) Impossibility of combining genitive and P-suffix

\*talo-**n-ssa**  
house-GEN-INNESS  
'in the house'

- (45) Structure of (44)
- ```

      PP
     /  \
    DP   P
   /  \  |
  NP   D  -ssa
  |    |
  N    -n
  |
talo-

```

- (46) Impossibility of combining partitive and P-suffix

*talo-**a-ssa**
house-PART-INNESS

‘in a house’

- (47) Structure of (46)
- ```

 PP
 / \
 DP P
 / \ |
 NP D -ssa
 | |
 N -a
 |
talo-

```

Instead of spelling out all suffixes in such a structure, only the P is spelt out, and the expression is ambiguous with respect to definiteness (48).

- (48) Ambiguity in interpretation of the lower projection

talo-ssa  
house-INNESS

‘in the/a house’

This suggests that there is competition at the morphological level for realisation. Although both positions are available in syntax, only one slot is available on the noun for realisation of a functional projection. When P and D are both syntactically filled, there is competition as to which is spelt out. P wins because it has more phonological material (e.g. *-nsa*, *-ssa*) than D (partitive *-a/-ä* and genitive *-n*). The one-slot restriction just proposed must be both language-specific and function-specific for reasons described below.

The one-slot restriction for spell-out on the noun must be language-specific because languages exist where two slots are available. Lezgian, for example, allows case stacking for direction and location, as illustrated in (49).

- (49) Lezgian case stacking: 2 slots (van Riemsdijk 1998)

a. sew-re-**qh-aj**  
bear-ERG-POSTESS-ELAT  
‘from behind the bear’

- b. sew-re-**k-di**  
 bear-ERG-SUBESS-DIREC  
 ‘to under the bear’

The one-slot restriction must be function-specific because Finnish nouns are not restricted to one suffix altogether. They can be inflected with possessive agreement suffixes as well as case suffixes (50), so more than one morphological slot must be available in total.

- (50) Finnish case and agreement

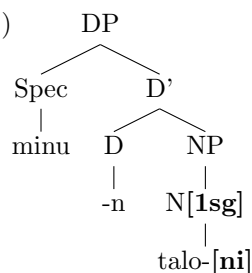
(min-un) talo-ssa-ni  
 1SG-GEN house-INESS-1SG  
 ‘in my house’

This suggests that there is a qualitative difference between agreement suffixes on the one hand and the P and D suffixes on the other. This perhaps relates to syntactic position, with agreement involving the specifier-head configuration of controller (the possessor) and target (the possessee), contrasting with P and D occupying functional projections (51)-(54).

- (51) Suffix spells out agreement features

minu-n talo-ni  
 my-GEN house-1SG  
 ‘my house’

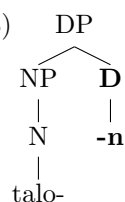
- (52) Structure of (51)



- (53) Suffix spells out functional head (D)

talo-n  
 house-GEN  
 ‘house’s’

- (54) Structure of (53)



The one-slot restriction therefore also appears to be function-specific. The morphological competition for space on the noun has access to information on the source of the suffix, allowing only one suffix spelling out a functional projection and one spelling out agreement features.

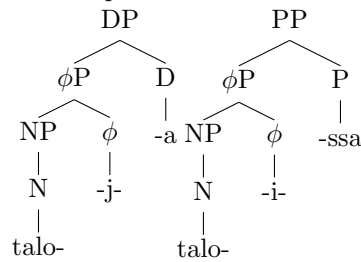
### 3.3.3 Spell-out of Finnish plural

A puzzle left over is the fact that the plural marker *-i-* does seem to be able to combine with both D-cases and P-cases, as illustrated in (55).<sup>6</sup>

- (55) Finnish plural affix *-i-*
- a. *-i-* with D-case  
talo-j-a  
house-PL-PART  
'(some) houses'
  - b. *-i-* with P-case  
talo-i-ssa  
house-PL-INESS  
'in (the/some) houses'

This is a problem because  $\phi$ P, the likely location of number in syntax, is a functional projection under the present assumptions about noun phrase structure. If number is also in the extended projection of the noun, located in  $\phi$ P, then the structures of (55) are as in (56).

- (56) Possible position of Finnish *-i-* (to be revised)



There is evidence, however, for fusional characteristics in the number marker *-i-*. Unlike its Hungarian equivalent, the number marker *-k-*, which can combine with cases but also appear without additional suffixes (57) on the nominative plural, the Finnish *-i-* cannot appear on nominative plural (Hungarian presumably not being subject to the one-slot restriction), as the last suffix on the noun. Instead this form is *-t* (58).

<sup>6</sup>In (a) *-i-* becomes *-j-* because it appears between two vowels.

- (57) Hungarian plural morpheme
- a. Plural morpheme word-final  
gyerek-**ek**  
child-PL  
'children'
  - b. With P-case  
gyerek-**ek**-nek  
child-PL-DAT  
'to/for children'
- (58) Finnish plural
- a. Ungrammaticality of word-final *-i*  
\*talo-*i*  
house-PL
  - b. Different form for nominative  
talo-*t*  
house-PL

Karlsson (1999:92-5) also notes that the genitive plural form normally follows the *-i-* affix, but that a few nouns have it added directly to the bare stem. Thus the genitive plural of *muna* ('egg') is *mun-i-en* (egg-PL-GEN), but the genitive plural of *hammas* ('tooth') is normally *hammas-ten* (tooth-PL-GEN), an unambiguously fused morpheme, and only occasionally *hampa-i-den* (tooth-PL-GEN). This suggests that the *-i-* suffix is fused with the following morpheme, explaining that fact that the plural marker escapes the restriction to one functional suffix on the noun. In (56), *-i-* is not inserted in  $\phi$ . Rather, the fused morpheme *-issa* is inserted in P.

### 3.3.4 Productive spell-out of combined projections

I am not at present aware of any languages which have productive inflectional combinations of P-inflections with such partitive and genitive markers. To further support the proposal here, it would be necessary to look for a language with such stacking of affixes and also productive use of a morpheme with partitive functions, as in Finnish. Weak evidence comes from Estonian (59), where the genitive (*ilma*, *ilmade*) appears to form the stem for the other cases. If Estonian cases are seen as more or less equivalent to Finnish (which remains to be established with certainty, but which seems likely on the basis of their close relationship), then the genitive would be a D-case and those added to this stem would be P-cases.

(59) Estonian cases with genitive stem (*ilm*, ‘weather’)

| Case        | Singular    | Plural        |
|-------------|-------------|---------------|
| Nominative  | ilm         | ilmad         |
| Genitive    | <b>ilma</b> | <b>ilmade</b> |
| Partitive   | ilma        | ilmu          |
| Illative    | ilmasse     | ilmadesse     |
| Inessive    | ilmas       | ilmades       |
| Elative     | ilmast      | ilmadest      |
| Allative    | ilmale      | ilmadele      |
| Adessive    | ilmal       | ilmadel       |
| Ablative    | ilmalt      | ilmadelt      |
| Abessive    | ilmata      | ilmadeta      |
| Essive      | ilmana      | ilmadena      |
| Terminative | ilmani      | ilmadeni      |
| Translative | ilmaks      | ilmadeks      |
| Comitative  | ilmaga      | ilmadega      |

The search for more productive support remains for future research. At present, the only available evidence for productive combination appears to come from languages which use separate words, rather than affixes, for these properties, as with English *out of*, French *près de* (‘near’), and Modern Greek *prin apo* (‘before’), and possibly from D-case and P-word combinations from German, such as (60), where the preposition combines with a noun in the genitive case (though the status of German genitive case as D-case is less clear, as shown below in Section 3.4.1).

## (60) German genitive and preposition

trotz des regens  
 despite the.GEN rain.GEN  
 ‘despite the rain’

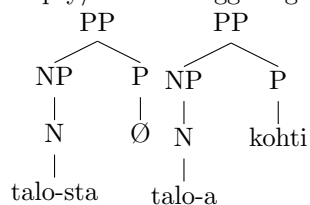
A further important consideration is attributive agreement with the different types of cases. This is particularly significant because in this respect the Finnish P-cases and adpositions differ slightly from those in Hungarian, and because previous approaches to Finnish (Nikanne 1991, McFadden 2004), proposing an analysis rather similar to my P-case analysis, argue for structures slightly different from mine. Their proposals involve empty P projections, the case on the noun reflecting Case assigned to the noun by the empty P. The difference between this approach and my view that the case is the item in the P projection is illustrated for the Finnish inessive in (61), following the structures in (62) and (63).



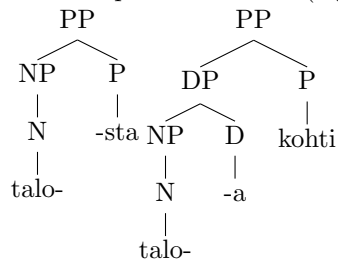
## (61) Finnish P-case and P-postposition

- a. P-case  
 talo-sta  
 house-ELAT  
 ‘out of the house’
- b. P-adposition  
 talo-a kohti  
 house-PART towards  
 ‘towards the house’

## (62) Empty/filled P triggering case (Nikanne 1991, McFadden 2004)



## (63) Filled P spelt out as case (my proposal)



Nikanne and McFadden choose the analysis in (62) on the basis of Finnish adjectival concord (64). The adjective agrees with the noun in P-case (a) but not in P-adposition (b).

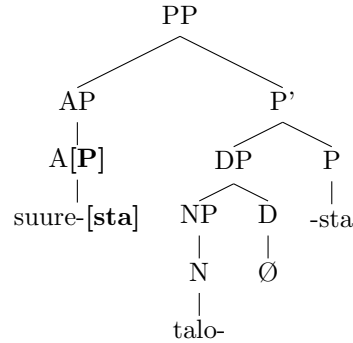
## (64) Adjectival concord in Finnish (McFadden 2004)

- a. Concord with P-case  
 suure-**sta** talo-**sta**  
 big-ELAT house-ELAT  
 ‘out of a/the big house’
- b. Lack of concord with adposition  
 suur-**ta** (\***kohti**) talo-**a** **kohti**  
 big-PART towards house-PART towards  
 ‘towards a/the big house’

If the P-cases (a) are alternative realisations of an empty P, then the adjective is simply agreeing with the realisation on the noun, and it is not expected that it should agree with *kohti* in (b), because this is not realised on the noun. Under my account this is problematic because (a) and (b) involve the same

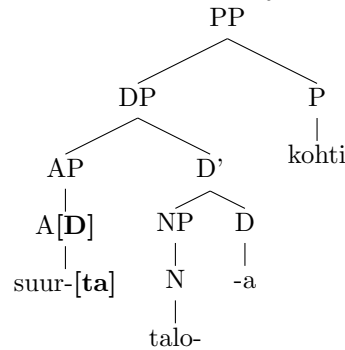
structures. The concord in (64-a) suggests a structure in which the adjective is in the specifier of PP (65), according to the agreement approach discussed in Chapter 1, based on Carstens (2000).

(65) Structure of P-case adjectival concord



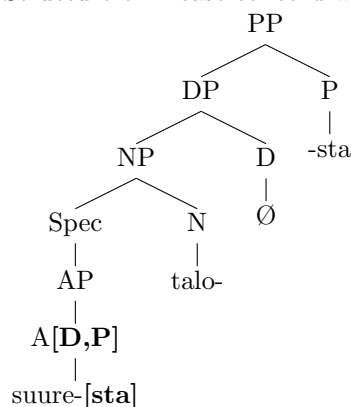
If (65) is correct, then one would expect the adjective to raise to Spec-P with the postposition as well, but the concord with partitive in (64-b) indicates that it has only gone as far as the specifier of DP (66).

(66) Structure of D-case adjectival concord

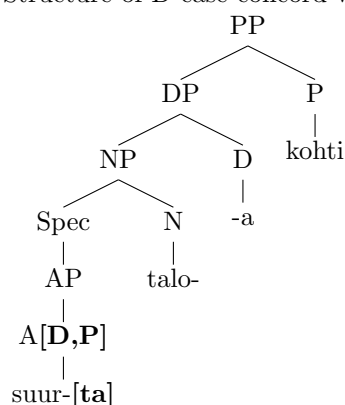


Assuming that adjectival movement and concord is determined in the narrow syntax and that vocabulary insertion applies after the narrow syntax (also following fusion operations between heads), it is hard to see how to account for this without making undesirable reference to a lookahead mechanism. An alternative would be to assume that the adjective has weak D and P features in both (65) and (66), remaining in the specifier of the noun in the narrow syntax, as in (67) and (68) (the structures in (65) and (66) being achieved in the covert syntax).

- (67) Structure of P-case concord without movement



- (68) Structure of D-case concord without movement



In (67) the D has no phonological material inserted in the morphological component because of the one-slot restriction discussed in Section 3.3.2. The P in (68) is not repeated on the adjective because Finnish does not allow the spell-out of agreement morphemes as independent phonological words. This restriction must be specific to Finnish since, as seen in Chapter 2 Section 2.2.1, Hungarian demonstratives agree with postpositions as well as cases.

It is worth noting in this connection that attributive concord with the different functional projections of the noun seems to manifest itself in several of the conceivable ways, ranging from concord with full P-words to concord restricted only to D-case even when P-cases are available. Thus Hungarian demonstratives, discussed in more detail in Chapter 2, agree with postpositions as well as P-cases, as in (69).

- (69) Hungarian demonstrative concord

- a. Concord with case  
 ab-**ban** a ház-**ban**  
 that-INESS the house-INESS  
 ‘in that house’

- b. Concord with postposition  
 a **mögött** a ház **mögött**  
 that behind the house behind  
 ‘behind that house’

On the other hand McFadden (2004:73) notes that in Estonian, the adjective does not agree with the full paradigm of cases, but only with the core cases and one P-case, the inessive. With the other putative P-cases, the adjective is either genitive (with terminative), or partitive (with essive, abessive and comitative), as in (70).

- (70) Estonian adjectival agreement (McFadden 2004:73)

| Case        | Adjective | Noun      | Translation              |
|-------------|-----------|-----------|--------------------------|
| Nominative  | ilus      | tüdruk    | beautiful girl           |
| Genitive    | ilusa     | tüdruku   | of a beautiful girl      |
| Partitive   | ilusat    | tüdrikut  | a beautiful girl         |
| Inessive    | ilusas    | majas     | in a beautiful house     |
| Terminative | ilusa     | tüdrukuni | up to a beautiful girl   |
| Essive      | ilusat    | tüdrukuna | as a beautiful girl      |
| Abessive    | ilusat    | tüdrukuta | without a beautiful girl |
| Comitative  | ilusat    | tüdrukuga | with a beautiful girl    |

Working on the assumption that the Estonian partitive and genitive should be subject to a similar D-case analysis to that presented for Finnish here (an assumption which remains to be established for certain), it looks like this is an instance in which the adjective is able to agree with the D-head, even though only the P-head is realised on the noun, suggesting that language-specific constraints are at work at the morphological level, allowing the conflict between spell-out of P and D on the adjective to be resolved differently from on the noun in Estonian, but maintaining uniformity between the adjective and the noun in Finnish.

I consider the empty P analysis for the Finnish P-cases in Nikanne (1991) to be undesirable because it postulates a large number of qualitatively different empty items, all of which result in different inflections on the noun. Where the overt prepositions and postpositions are restricted to being associated with a narrow range of cases (genitive, partitive and occasionally elative), all of which are found in other contexts (with objects of verbs and nouns), the empty Ps, under Nikanne’s view, each have a unique case assigned by no other head apart from the individual P in question. Nikanne (1991) and McFadden (2004) suggest that the empty P structure is the only way of explaining the agreement on the adjective, but this leaves the different pattern in Estonian unexplained, and still at the cost of assuming a wide range of empty categories in Finnish which behave quite unlike their overt counterparts.

### 3.4 Theoretical implications

This section suggests extensions of the analysis to genitive in different languages and sets the analysis in its theoretical context. Section 3.4.1 looks at possible applications of the D-case analysis in Slavic and Germanic. Section 3.4.2 argues that the difference between D-cases and P-cases can account for many of the phenomena previously analysed as the division between structural and inherent Case.

#### 3.4.1 Cross-linguistic applicability

This section highlights some genitive case phenomena in Slavic and Germanic languages that could also come into consideration for the D-case analysis. I also note that it seems difficult to avoid mixed analyses of certain items, such as English *of*, and German *von*, with lexical entries for both D and P instantiations.

**Russian** Russian and other Slavic languages have several characteristics in common with Finnish. Like Finnish, they lack definite and indefinite articles. Where Finnish has partitive in many quantified constructions, Slavic languages have genitive.

The use of the genitive in negative contexts appears to be similar to that of the Finnish partitive, again resembling a negative polarity item. Where most transitive verbs have objects, and also phrases expressing time and distance, in the accusative case in positive sentences (71), in negative sentences the object optionally has genitive case (72).<sup>7</sup>

(71) Russian transitive verb with accusative case (Franks 1995:31-3)

- a. Ivan čital ètu knigu.  
Ivan read this book.ACC  
'Ivan read this book.'
- b. Ivan spal vsju noč'  
Ivan slept all night.ACC  
'Ivan slept all night(acc).'

(72) Russian transitive verb with genitive of negation (Franks 1995:196)

- Ivan ne čital ètoj knigi ni minuty.  
Ivan not read this.GEN book.GEN not.even minute.GEN  
'Ivan didn't read this book even for a minute.'

Thus it seems that the genitive in Russian takes on some part of the behaviour of the Finnish partitive described above, and may also be a candidate for the D-case analysis. More extensive parallels are noted in Kiparsky (1998).

<sup>7</sup>As noted in Chapter 1, Section 1.3.4, I assume XP-spell-out, rather than spell-out of terminal nodes, for fusional languages. Thus Russian would differ from Finnish in that Russian genitive would spell out DP, whereas Finnish genitive would spell out D and the noun would spell out N.

*German genitive* There is some evidence that German genitive, and in some contexts dative, may also form part of the D-system. Bayer et al. (2001) distinguish German nominative and accusative cases from genitive and dative cases, based on their different morphosyntactic behaviour. They attribute the difference to a structural asymmetry, nominative and accusative relating to a particular spec-head configuration between a DP and a verbal head, whilst genitive and dative spell out additional structure which they term KP, an additional projection above DP. They leave several differences between genitive and dative unexplained. I examine these differences, arguing that the genitive/dative asymmetries pointed out in Bayer et al. (2001) result from a D/P asymmetry, dative normally spelling out P (since I do not recognise a K head in the noun phrase) and genitive D.

Genitive requires morphological licensing in contexts where the other cases do not. When a noun appears with the definite determiner, genitive case is obligatorily marked on masculine and neuter nouns, as shown in (73). In this respect genitive differs from nominative and accusative, which appear only on the determiner, and dative, which appears on the determiner and optionally on the noun.

(73) German case morphology on articles and nouns (Bayer et al. 2001:446)

| Singular   | masculine   | feminine | neuter      |
|------------|-------------|----------|-------------|
| Nominative | der Mann    | die Frau | das Kind    |
| Accusative | den Mann    | die Frau | das Kind    |
| Dative     | dem Mann(e) | der Frau | dem Kind(e) |
| Genitive   | des Mannes  | der Frau | des Kindes  |

Proper names are ungrammatical if they are genitive and the genitive is not morphologically realised (74), whereas bare datives are acceptable in contexts requiring dative (75).

(74) Need for genitive inflection on proper names

Bewohner Moskau-s/ London-s/ \*Paris/ \*Graz/  
 inhabitants Moscow-GEN/ London-GEN/ Paris/ Graz/  
 Graz-en-s  
 Graz-AUG-GEN

‘inhabitants of Moscow/London/Paris/Graz’  
 (Bayer et al. 2001:467)

(75) Lack of dative inflection on proper names  
 (adapted from Bayer et al. 2001:477)

- a. Die Affäre hat **Bill Clinton** / **ihm** nicht geschadet.  
 the affair has Bill Clinton / 3SG.M.DAT not harmed  
 ‘The affair didn’t harm Bill Clinton / him.’
- b. Amerika hat **Afghanistan** / **ihnen** den Kampf angesagt.  
 America has Afghanistan / 3PL.DAT the fight told  
 ‘America challenged Afghanistan / them.’

(76) shows that a similar phenomenon is encountered with plural nouns. Bare plurals are permitted in contexts normally requiring dative (a) but not genitive (b).

- (76) Bare plurals in dative and genitive (Bayer et al. 2001:481)
- a. Bauern soll man nicht widersprechen / schaden.  
farmers[DAT] should one not object / harm  
'One should not object to / harm farmers.'
- b. \*Bauern kann ich mich leider nicht erinnern.  
farmers[GEN] can I 1SG.REFL unfortunately not remember  
'Unfortunately I cannot remember farmers.'

In terms of morphological licensing, genitive is therefore distinct from the other cases.

Finally, genitive case is ungrammatical in the absence of an article or adjective (Bayer et al. 2001:481). This holds unless the noun is already intrinsically definite, as in the proper names in (74), which are grammatical without an article or adjective, as illustrated in (77). The implication seems to be that overt genitive marking on a common noun is insufficient on its own, and must be supported by additional overt genitive marking on the article.

- (77) Genitive-marked article/adjective with genitive-marked noun

Ich erinnerte mich \*(eines/des/guten) Wein-es aus  
I remembered 1SG.REFL a.GEN/the.GEN/good.GEN wine-GEN from  
Chile.  
Chile

'I remembered (a/the/good) wine from Chile.'

The connection with the article and the definiteness status of the noun suggests a link between the DP layer and the genitive. I suggest that the analysis of genitive as belonging to the determiner system goes some way towards explaining this link.

The German data discussed here are comparable to the Finnish in that an element commonly treated as a case can be shown to be distinct from those cases which spell out PP (German dative, Finnish locative and directional cases) as well as nominative and accusative, and in that the same element appears to undergo an interaction with the determiner system.

It is clear that the use of the German genitive is far more restricted than that of the Finnish partitive, with nothing like the regular subject/object alternations with other cases. I suggest that this difference could be due to the fact that German, with a full determiner system, has less need for it. Note also that use of genitive is declining over time in German such that this case tends not to be used in colloquial speech (Durrell 1996:37).

Genitive is often replaced by the preposition *von*. I do not assume that the same analysis can be extended directly to German *von*, in spite of its similar use in partitive expressions (78).

- (78) German
- von*
- with partitive use

der größte Teil von dem Tag  
 the biggest part from the.DAT day

‘most of the day’

This is because *von* in spatial expressions has clear directional semantic content (‘from’) (79).

- (79) German
- von*
- with spatial meaning Durrell (1996:419)

a. Ich fuhr **von** Frankfurt nach München.  
 1SG travelled from Frankfurt to Munich  
 ‘I travelled from Frankfurt to Munich.’

b. Sie bekam einen Brief **von** mir.  
 3SG.FEM received a.ACC letter from 1SG.DAT  
 ‘She received a letter from me.’

Furthermore, German *von* selects for a noun with dative case. If Bayer et al. (2001) and Vogel and Steinbach (1998) are correct, then the dative case involves further structure above DP. Note, however, that the status of dative remains unclear. Although Bayer et al. (2001) observe that their K head can sometimes be filled by a preposition, and I have therefore assumed that it is equivalent to PP, several German prepositions regularly combine with dative. Directional prepositions such as *nach* (80) can be analysed as having the preposition in Path and the dative in Place, but this will not work for those such as *in*, which has dative just when it is locative, presumably appearing in Place, leaving no obvious structural position for dative if it is analysed as P.<sup>8</sup>

- (80) German
- nach*
- with dative

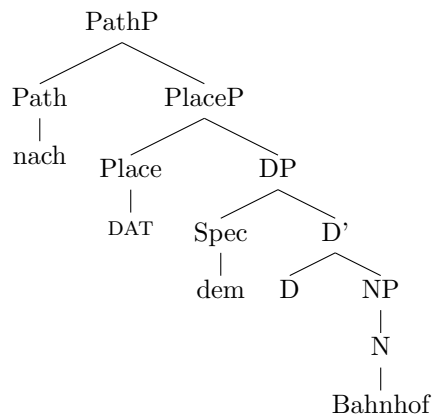
nach dem Bahnhof  
 towards the.DAT station

‘towards the station’

<sup>8</sup>I assume that case appears on the determiner by agreement, according to the mechanism described in Chapter 1 Section 1.3.4, the determiner being in a specifier position and having an uninterpretable P-feature, as with Finnish adjectives and Hungarian demonstratives.



- (81) Structure of
- nach*
- with dative



German genitive, dative and *von* therefore appear to be mixed items, exhibiting some D and some P characteristics, suggesting that each has separate lexical entries specified for D and P.

**English of** In this section I look for evidence in English for a category equivalent to the Finnish partitive, arguing that the analysis may also shed light on the anomalous behaviour of English *of*. Although *of* is often regarded as a preposition, it is unlike most other English prepositions in several respects, being more semantically vacuous than other English prepositions. This has led to various different analyses, Chomsky (1981:50–51) proposing that nouns cannot assign structural case and that the insertion of a semantically empty preposition such as *of* allows for case-marking of the complement, and de Wit (1997) argues that *of* is the exponent of structural Case. den Dikken (2006b) proposes that *of* is a copula. Kayne (1994) in studying N-of-N constructions, suggests that *of* is a determiner, and Oga (2000) argues that there are two different types of *of*, one lexical and one functional. My approach combines various elements of these, concluding that there may be two lexical entries for *of*, as P and as D. I begin by showing the exceptional nature of *of* by comparison with other prepositions.

Unlike other prepositions, which seem to be acceptable as arguments of cognate nouns and verbs (82), *of* cannot normally be used as a verbal complement (83). Instead *of* emerges as a default adnominal preposition, rather like a nominal counterpart of accusative case, leading some researchers to suggest that it is the NP-internal structural case (cf. de Wit 1997).

- (82) Prepositions as complements of nouns and verbs

- a. arguments against the war
- b. He argued against the war.

- (83)
- Of*
- as complement of noun and verb

- a. the destruction of the city
- b. \*He destroyed of the city.

Partitive use of *of* is normally restricted to noun phrase-internal and quantifier phrase-internal use in English (84).

- (84) Partitive *of*
- a. a cup/pot of tea
  - b. some/much of the fruit
  - c. ??He ate of the bread.

Only a few verbs select an object with *of* (85).

- (85) Verbs selecting objects with *of*  
He thought / dreamt / spoke of the war.

At earlier stages of the language, however, *of* was possible with verbal objects (86) and seems to have been an alternative to bare noun phrase objects (87), suggesting that it was more directly parallel with Finnish partitive.

- (86) *Of* as a verbal object in older texts
- a. Eat ye every man of his own vine, and every one of his fig tree.
  - b. They did eat of the unleavened bread among their brethren.
  - c. Drink of this potion.
  - d. 'Twill fill your stomachs; please you eat of it.
  - e. I would you would accept of Grace and Love.
  - f. Hear him debate of commonwealth affairs.  
(a-b) from the Bible, II Kings, King James Version, 1611;  
(c-f) from Shakespeare texts
- (87) Bare noun phrase objects from the same texts
- a. He did eat bread continually before him all the days of his life.
  - b. I'll steep this letter in sack and make him eat it.  
(a) from the Bible, II Kings, King James Version, 1611;  
(b) from Shakespeare

Where various researchers have claimed that Path is positioned hierarchically above Place (van Riemsdijk and Huybregts 2001, Kracht 2002; 2003, den Dikken 2003, Svenonius to appear b; to appear c), it is difficult to fit *of* into such structures. Whilst *of* can be selected by certain Ps (such as *out*), it is not clear that *of* in such a context has any kind of locational meaning. (88) illustrates the surface phenomena predicted by the hierarchical ordering of Path and Place. (89) shows that the same ordering works for many English prepositions, but not for *of*, which has no obvious locational meaning when it is selected by a locative P, and cannot select a locative P itself. This suggests that it is lower than P in the structure.

- (88) Hierarchical ordering of Path and Place in Lezgian
- a. sewre-*qh*-aj  
bear-POSTESS-ELAT  
'from behind the bear'

- b. sewre-qh-di  
bear-POSTESS-DIREC  
'to behind the bear'  
(van Riemsdijk and Huybregts 2001)
- (89) Ordering of English Place/Path Ps and *of*
- a. from behind the tree
  - b. (out) from behind the tree
  - c. (from) out of the house (*of* has no obvious locational meaning)
  - d. north of the mountains
  - e. \*of out/from the house (*of* cannot select other prepositions)

Although *of* can be used in several functions similar to the genitives and partitives discussed for Finnish above (as a partitive, and in certain possessive constructions), the link with the category D is not always clear in English. Clearly *of* can combine with an article in many constructions, as in many of the examples in this section (though it is excluded from pseudopartitives such as (84-a)). A further possible counterargument to analysing *of* as belonging to the DP layer is the acceptability of stranding. In this respect *of* patterns with prepositions, and differently from determiners, as illustrated in (90).

- (90) English P- vs. D-stranding
- a. I only know these children.
  - b. \*Children, I know only these.
  - c. What were you thinking of?
  - d. What did you put the book on?

It therefore seems that English *of* must be analysed as having two lexical entries, appearing both as a P and as a D, perhaps a necessary compromise for analysing an item in diachronic flux within a synchronic framework. Its inability to strand makes it appear more like a P, but its lack of semantic content makes it unlike other Ps and its historical behaviour seems much like that of the Finnish partitive.

### 3.4.2 Type of case: inherent vs. structural

In this section I show how the analysis of genitive and partitive as part of the determiner system, not part of the P-system can be related to the structural/inherent Case distinction standardly assumed. I work on the assumption that the basic observation which the structural/inherent distinction seeks to capture is the fact that some cases appear to be semantically or idiosyncratically selected (inherent), whilst others appear more like defaults of certain structurally defined contexts (structural). There has long been controversy over whether cases such as partitive and genitive in the contexts discussed here should be treated as structural or inherent. This controversy is natural, given that in Finnish the cases pattern syntactically with nominative and accusative, standardly analysed as structural, but are semantically conditioned, thus appearing more like inherent cases.

Belletti (1988) presents an analysis of the Finnish partitive in which it emerges as a type of case separate from the structural and inherent cases standardly assumed. Belletti treats the partitive as inherent, but notes that it is unlike other inherent cases, such as dative, in that it does not represent a specific  $\theta$ -role but rather simply reflects the fact that some  $\theta$ -role is assigned. She claims that it is universally present in the contexts in which certain definiteness effects are found (cf. (16)), but that Finnish is one of a few languages in which it is overtly realised. One problem with this is that it involves a move in the direction of analysing the presence of more cases where there is no surface morphological evidence, adding a layer of complication to the theory. It is not clear how it would be optimal for a language to have a particular characteristic, if it were not important enough ever to need overt marking (e.g. English partitive under Belletti's view), and why another language would then mark that same category overtly, as in Finnish. Connecting the partitive with the determiner system results in the languages appearing similar both in their syntax and in their overt marking of that syntax, whereas Belletti's approach makes them identical in syntax but morphologically highly disparate.

There are several different linguistic mechanisms available to carry out the functions of genitive/partitive discussed in this chapter, and languages making more use of one mechanism may make less use of another. Thus in some languages such as Finnish and Latin, articles appear to be completely absent, whilst in others, such as Hungarian, genitive case is absent. In Hungarian, on the one hand, both definite and indefinite articles are available (91), and the marking of possession (in other languages often carried out by 'genitive' morphology or adpositions) is carried out by agreement markers on the noun (92).

- (91) Hungarian determiners

**egy** / **a** ház  
a / the house

'a/the house'

- (92) Hungarian possessive marking

az (én) toll-**am**  
the (1SG) pen-1SG

'my pen'

On the other hand, Finnish has no determiners and makes much more extensive use of partitive and genitive cases.

Giusti (1995) makes the claim that Case is associated with the DP level, stating that this is why languages such as German and Romanian show case mainly on the determiner and on pronouns, rather than on the full noun (93).

- (93) German case marking on determiner

den / dem Wein  
the.ACC / the.DAT wine

Counter-evidence to her proposal is found in Hungarian, where case marking is on the noun and never on the article (94).

(94) Hungarian case marking on the noun

a bor-t / bor-nak  
the wine-ACC / wine-DAT

The present approach, however, may go some way towards accounting for the apparent connection observed by Giusti. The cases in languages such as German and Romanian would be associated predominantly with the determiner level of structure, or other lower levels (to be discussed in Chapter 4). In contrast, most of those in Hungarian would be associated with the P-level, and thus more distinct from the determiner layer.

To summarise, the inherent-structural division has no theoretical place in the proposal developed here. Instead I suggest that many of the observable differences can be reduced to the differences between D-cases and P-cases, such that there is a rough correspondence between D-cases and those cases previously analysed as structural Cases, and P-cases and those previously analysed as inherent Cases.

### 3.5 Conclusion

This chapter shows that partitive and genitive cases (whether they are spelt out as ‘case’ morphology or as separate words normally assumed to be ‘adpositions’) do not belong amongst the P-cases (my account of semantic cases in Chapter 2), nor can their distribution be explained by standard case assignment principles. I have proposed instead that partitive and genitive belong to the category D, and that language-specific morphological constraints mediate between spell-out of P and D when they co-occur. Different languages set different limits on the number and type of morphemes that can be spelt out as phonologically dependent on a lexical head, Finnish nouns and adjectives being restricted to one suffix spelling out a functional head and one spelling out agreement. Linking partitive and genitive to the determiner system makes it possible to view the use of cases such as Finnish partitive as part of a wider system, rather than as language-specific exceptions.

The reanalysis of partitive and genitive allows for a more semantically consistent characterisation of the category P, as a category of spatial and relational markers, without expanding significantly the semantic coverage of the system of determiners. Part of speech categories can be distinguished at the levels of morphology, syntax and semantics, and the analysis developed here suggests that there is a qualitative, rather than quantitative, difference between extended projections of the noun: P and D differ in the type of content they can hold, not in their distance from the noun (P as third functional projection, D as second, for example). Still there are certain elements which resist a unified analysis, appearing to be in the process of diachronic change, as can be seen with English *of* and German *von*. These items seem to be variably inserted

in either P or D. Kiparsky (1998) notes that the Finnish partitive case is derived from the former elative marker, which may partially explain its mixed behaviour. On the basis of the Finnish and Russian evidence, there appears to be a correlation between absence of determiners in a language and a particular pattern of adnominal case use in what would be determiner contexts in English. The account of the Finnish genitive remains incomplete. The next chapter proceeds with the breakdown of the Finnish core cases, looking at nominative and accusative, which sheds further light on the genitive.

## CHAPTER 4

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### The status of nominative and accusative case

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#### 4.1 Introduction

This chapter investigates the status of nominative and accusative in the light of the idea that different cases are related to different functional heads in the extended projection of the noun. I have argued that cases with locative and directional interpretations spell out members of the category P (Chapter 2), an extended projection of the noun, and that partitive and genitive spell out a lower functional projection of the noun, D (Chapter 3). Looking at morphologically rich languages, such as Finnish or Hungarian, most of the oblique cases have now been accommodated amongst the extended nominal projections. This leaves nominative and accusative, the cases which are normally the focus of Case Theory in the Principles and Parameters framework.

As outlined in Chapter 1, certain variations in case marking previously seen as allomorphy or zero marking, such as the difference between nominal and pronominal marking in English (1), can be seen as parallel to phenomena previously described as differential case marking (Aissen 1997; 2003a;b), such as the Hebrew object marking variation depending on definiteness of the object (2). On the basis of evidence of this kind, I argue that the nominative-accusative distinction relates to differences in the structure of nouns below the P-layer.

- (1) Difference between object marking on the English noun and pronoun
  - a. Absence of marking on object noun  
John hugged Bill.
  - b. Presence of marking on object pronoun  
John hugged him/\*he.

- (2) Differential object marking in Hebrew (Aissen 2003b:453)
- a. Marking on definite object  
 Ha-seret her'a 'et-ha-milxama.  
 the-movie showed ACC-the-war  
 'The movie showed the war.'
  - b. Absence of marking on indefinite object  
 Ha-seret her'a (\*'et)-milxama.  
 the-movie showed ACC-war  
 'The movie showed a war.'

A further phenomenon that can be linked to this is obviation. The terms 'obviative' marker and 'obviation' are used with respect to languages of the Algonquian family. Obviative markers signal disjoint reference in third persons. Obviative markers in Algonquian are also used stylistically to foreground or background characters (Buszard-Welcher 2003). In a sentence with two third person arguments, the argument highest ranked with respect to various factors, including grammatical function, inherent semantic properties and discourse salience, is marked proximate and all others must have obviative markers (Aissen 1997:705), as shown in (3). I suggest that the nominative-accusative distinction may be understood along similar lines to the proximate-obviative distinction.

- (3) Obviation in Plains Cree (Algonquian, from Aissen 1997:707)
- a. Single syntactically present argument, no obviative  
 Niwa.pama.w atim.  
 see.1.3PROX dog.3PROX  
 'I see the dog.'
  - b. Two arguments, obviative marker  
 Pakamahwe.w na.pe.w atimwa.  
 hit.3PROX.3OBV man.3PROX dog.3OBV  
 'The man hits the dog.'

The main claims of the chapter are as follows. Nominative and accusative, where they are morphologically distinct, are like the P-cases of Chapter 2 and D-cases of Chapter 3 in not being assigned or checked with a particular head, and in that they spell out functional categories of the noun. They differ from P-cases in that they spell out lower functional projections than the P-level, within the schematic structure in (4).

- (4) Extended noun phrase structure
- 
- ```

graph TD
  PP --> P
  PP --> DP
  DP --> D
  DP --> phiP
  phiP --> phi
  phiP --> NP
  NP --> N
  
```


Which head (D, ϕ or N)¹ and what value of that head (definiteness or indefiniteness, animacy or inanimacy, etc.) varies from one language to another, but a difference in the head spelt out or the value of that head constitutes the difference between nominative and accusative in those contexts where there is a morphological distinction between the two. I propose that the accusative works rather like an obviative marker in (3), enforcing disjoint reference of arguments otherwise similar in certain ways. Which types of arguments need marking in this way varies from one language to another, in keeping with hierarchies described in work on differential case marking, with properties such as discourse salience, definiteness, specificity, and proto-agent and proto-patient characteristics being relevant (Hopper and Thompson 1980, Aissen 1997; 1999; 2003b).

I argue that languages and categories lacking a nominative-accusative morphological distinction have no underlying syntactic distinction. Where there is no regular accusative morphology, as in English full nouns, for example, no accusative case is present. Essentially, this chapter reformulates the question of why the nominative-accusative distinction in languages like English appears on pronouns but not full nouns, to ask what pronouns need in object position (and a few other positions to be discussed) which full nouns do not. Note that this shifts the focus away from assignment or checking with particular categorial heads, or from θ -roles, expecting instead an answer connected with the nominal item itself. This is consistent with the reasoning about D-cases and P-cases in the previous chapters.

Section 4.2 explains why the standard view of accusative case is a problem for the theory developed here, and also for theories of case/Case in general. Section 4.3 outlines the present proposal, that nominative and accusative may relate to different nominal projections below the P layer. The proposal is based on alterations to Déchaine and Wiltschko's (2002) decomposition of pronouns. Section 4.4 returns to the Finnish and Hungarian core cases, finding evidence from these languages for the relationship between accusative morphology and the Determiner and ϕ projections. Section 4.5 questions the reasons for the distribution of nominative and accusative case, proposing that accusative plays a role in obviation, examining evidence from the morphology of anaphors and pronouns and their distribution. Finally, 4.6 summarises and lists some questions for further research.

4.2 Problems with the standard approach

This section discusses why accusative case is a problem, both for my theory and for standard approaches to Case in the Principles and Parameters framework and traditional grammars. Section 4.2.1 outlines recent research on nominative. If this is integrated either into the theory developed in this dissertation or into other standard approaches to case, it leaves accusative looking rather

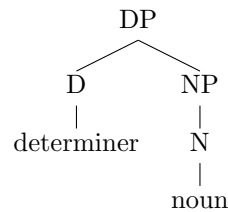
¹In accordance with Déchaine and Wiltschko (2002) I do not rule out the possibility of expansion of the ϕ -projection.

exceptional. It is problematic to attach accusative consistently to a particular semantic role or grammatical function, as argued in Section 4.2.2. Section 4.2.3 points out that accusative is often assumed to be present where no accusative morphology is seen. Although it is not necessarily problematic to assume the presence of abstract accusative in itself, this reflects a disparity in the treatment of accusative as compared to other Cases. Genitive, for example, is normally visibly present where it is analysed as being syntactically present in terms of Case features. The assumption of abstract accusative fails to predict the choice of form where multiple forms are available, despite the fact that the choice of form is determined by syntactic and semantic considerations.

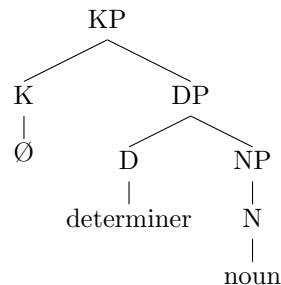
4.2.1 Nominative as absence of case

The Principles and Parameters framework treats both nominative and accusative as different varieties of uninterpretable Case features. However, recent findings in research on Case (Bittner and Hale 1996, Neeleman and Weerman 1998, Weerman and Evers-Vermeul 2002 among others) suggest that it is more appropriate to analyse nominative (and absolutive in ergative languages) as the absence of syntactic Case. Bittner and Hale (1996), for example, analyse a noun with nominative as DP, a noun with accusative as KP with an empty K head, and other nouns with other Cases as KPs with filled K, as in (5)-(7), arguing that the nominative noun is licensed by agreement with the verb.

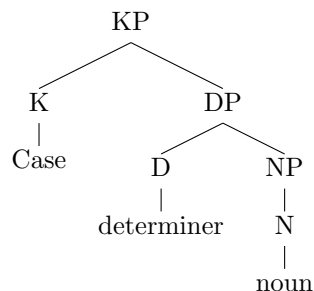
- (5) Structure of nominative noun in Bittner and Hale (1996)



- (6) Structure of accusative noun in Bittner and Hale (1996)



- (7) Structure of noun with other cases in Bittner and Hale (1996)



I adopt the view that nouns which appear morphologically nominative are Caseless, in the sense that they have neither the Case features of the standard Principles and Parameters approach, nor the KP of Bittner and Hale's Case-bearing nouns, nor the PP structures argued for in Chapter 2 to account for other morphological cases. The status of the nominative and accusative must be established separately for each language.

Doubt can be cast on the idea that nominative case is licensed by agreement, since nominative nouns appear with no agreement and agreement appears with non-nominative nouns. Full nouns in the Hungarian inflecting postposition phrase are nominative (bare) but there is no agreement on the postposition (8).

- (8) Lack of agreement on Hungarian postposition with nominative

a ház mögött
the house behind

'behind the house'

On the other hand, both noun and pronoun in the Finnish postposition phrase are genitive, and the pronoun has agreement (9).

- (9) Finnish postpositions and agreement (Karlsson 1999:225)

- a. (minu-n) kanssa-**ni**
1SG-GEN with-1SG
'with me'
- b. (sinu-n) kanssa-**si**
2SG-GEN with-2SG
'with you'
- c. häne-n kanssa-**an**
3SG-GEN with-3SG
'with him/her'
- d. (me-i-dän) kanssa-**mme**
1PL-PL-GEN with-1PL
'with us'

The same pattern appears in the Finnish possessive construction (10) with genitive.

- (10) Finnish case and agreement

(min-un) talo-ssa-ni
1SG-GEN house-INESS-1SG

‘in my house’

In Russian genitive is used in certain quantified expressions, as exemplified in (11). When the quantified expression is the subject, the verb can agree with the genitive noun phrase.²

- (11) Russian verbal agreement with genitive noun (Franks 1995:106)

Pjat’ krasivyx devušek prišli.
five beautiful.GEN.PL girls.GEN.PL arrived.3PL

‘Five beautiful girls arrived.’

It is therefore clear that nominative does not always determine agreement and agreement is not always determined by a nominative noun phrase.

Under the view that nominative is absence of Case-specific apparatus (Case features, KP or PP) accusative appears rather anomalous, being either the only uninterpretable Case feature, according to the standard approach, or the only Case associated with an empty K, in Bittner and Hale’s approach.

4.2.2 The meaning and function of accusative case

Accusative cannot be consistently ascribed to a particular meaning or function. In the following sections I discuss the problem with ascribing its presence to a particular semantic role, or a single grammatical function.

Accusative and semantic role

There are three main reasons for regarding accusative as unrelated to θ -role. Firstly, accusative is an apparent default object case in many languages, regardless of the role of the object, as illustrated for English in (12).

- (12) Accusative on objects with different semantic roles
- a. Mary fears **him**. (cause)
 - b. Mary frightened **him**. (experiencer)
 - c. Mary gave **him** the flowers. (recipient)
 - d. Mary killed **him**. (patient)

²Singular agreement with the quantifier is also an option here, as in (i).

- (i) Prišlo pjat’ krasivyx devušek.
arrived.N.SG five beautiful.GEN.PL girls.GEN.PL
‘Five beautiful girls arrived.’

Secondly, accusative appears on subjects in exceptional Case marking (ECM) constructions (13).

- (13) ECM
- a. John believes **them** to be the winners.
 - b. Mary expects **him** to do all the work.

Thirdly, accusative disappears under passivisation (14).

- (14) Disappearance of accusative under passivisation
- a. Mary kills **him**.
 - b. **He** was killed by Mary.

The argument which would be accusative in an active construction is promoted to nominative subject, in contrast with objects in other cases, such as dative, as illustrated in (15)-(16).

- (15) German accusative under passivisation

- a. Active, accusative object
 Sie sieht **mich**.
 she see.3SG me.ACC
 'She sees me.'
- b. Passive, no accusative
 Ich werde gesehen.
 I AUX.1SG see.PST.PRT
 'I am seen.'

- (16) German dative under passivisation

- a. Active, dative object
 Er hilft **mir**.
 he help.3SG me.dat
 'He helps me.'
- b. Passive, dative object
Mir wird geholfen.
 me.DAT AUX.3SG help.PST.PRT
 'I am being helped.'

There are a few contexts in certain languages where the accusative case does appear to make some predictable contribution to the interpretation of an expression. For example, in various European languages, there are certain prepositions which select a noun phrase with either the accusative or another case, as illustrated for German in (17). When the noun has accusative the interpretation is consistently directional denoting movement towards the object.

- (17) German Ps with accusative and dative
- a. auf **den** Hügel
on the.ACC hill
'onto the hill' (directional)
 - b. auf **dem** Hügel
on the.DAT hill
'on the hill' (locative)

Lestrade (to appear) gives examples from many European languages, including German, Russian and Polish, illustrating the prevalence of the phenomenon and consistency of the alternation between accusative and another case (the other being variable across languages). Such phenomena present a problem for an account of accusative which treats it as purely 'uninterpretable.' These adpositions receive further attention in Chapter 5.

Thus it is problematic to say that accusative has no link to semantics (17), but also to pin down any particular semantics with which it can be consistently linked.

Accusative and grammatical function

Accusative is commonly associated with direct objects. This section shows that accusative arguments need not be direct objects and that direct objects need not be accusative. Examples of accusative on subjects have already been seen in ECM examples in (18) (repeated from (13) above).

- (18) ECM
- a. John believes **them** to be the winners.
 - b. Mary expects **him** to do all the work.

It is sometimes said that accusative in colloquial English is a 'default case' (Schütze 2001). It appears quite naturally on coordinated subjects, especially where one of the coordinates is a full noun (19).

- (19) English accusative subjects
- a. **Me** and my friends gossip all the time.
 - b. It's just not something **me** and my friends are ready for.
 - c. **Him** and his brother were coming home one night when...
 - d. Bush and **them** are spying on people now.

Russian also supplies evidence for the idea that there is no special link between accusative case and direct objecthood, since phrases expressing time and distance appear in the accusative even with intransitive verbs and verbs which select other cases on their objects, as illustrated in (20).

- (20) Russian accusative in absence of direct object (Franks 1995:33)
- a. Ivan spal **vsju noc**.
Ivan sleep.PST.3SG all night.ACC
'Ivan slept all night.'

- b. Boris **celuju nedelju** dumal o Maše.
 Boris whole week.ACC think.PST.3SG about Masha
 ‘Boris thought about Masha all week.’
- c. Ètot director upravljaj fabrikoj vsego **odin**
 this director manage.PST.3SG factory.INSTR only one
god.
 year.ACC
 ‘This director managed the factory for only one year.’

It is also well known that many languages have verbs that select for nouns with different cases, analysed as P-cases, on a par with verbs which select for particular prepositions in English (21).

- (21) Idiosyncratically selected cases (Hungarian)
- a. Hiszek **János-ban.**
 believe.1SG János-INESS
 ‘I believe in János.’
- b. Hiszek **János-nak.**
 believe.1SG János-DAT
 ‘I believe János.’

Thus not all objects are accusative.

It is therefore impossible to claim that all objects are accusative or that all accusative items are objects. I argue below that the apparent association between accusative and objects emerges from independent factors.

4.2.3 Morphology of accusative

Of all the cases, the presence of accusative seems most often to be assumed where there is no morphological marking. In English, for example, it is assumed to be present on nouns in direct object position by analogy with the change in pronoun in the same position.

- (22) English accusative
- a. John killed **Bill.**
- b. He killed **him.**

The same thinking applied, by analogy, to other languages leads to complex patterns of syncretism in some languages such as Finnish and Russian.

What has traditionally been analysed as accusative in Finnish is spelt out variously by the bare form of the noun and by the suffixes *-n* (taken to be genitive in Chapter 3 and here) and *-t*. Only the pronouns have a suffix unique to the object position, but even this is identical to the nominative and accusative plural marker on full nouns *-t*. The *-n* and zero suffixes are syncretic with the genitive and nominative respectively.

Full nouns in direct object position have either *-n* (genitive, in this context signifying limited quantity) or *-a/-ä* suffixes (partitive, in this context

signifying non-limited quantity).³ On the other hand, a direct object personal pronoun, though it has partitive *-a/-ä* in the same contexts as full nouns, has accusative *-t* in the contexts in which a full noun would have genitive *-n*, as shown in (23).

- (23) Finnish object nouns and pronouns
- a. Bounded objects: genitive on nouns, accusative on pronouns
 Silja söi leivä-**n** / hän-**et**.
 Silja eat.PST.3SG bread-GEN / 3SG-ACC
 ‘Silja ate the bread / him.’
- b. Unbounded objects in partitive
 Silja söi leipä-**ä** / hän-**tä**.
 Silja eat.PST.3SG bread-PART / 3SG-PART
 ‘Silja ate (some) bread / some of him.’

The objects in (23-a) are traditionally treated uniformly as accusative (Karls-son 1999), in spite of the fact that the *-n* suffix on the full noun in (23-a) is identical to that on the possessor noun, as illustrated in (24).

- (24) Finnish genitive of possession
- a. Mari-**n** talo
 Mari-GEN house
 ‘Mari’s house’
- b. hän-**en** kirja-**nsa**
 3SG-GEN book-3SG
 ‘his/her book’

The traditional view has been challenged in recent theoretical literature. Vainikka (1993), for example, argues for treating the genitive as the case assigned to specifiers, and proposes that accusative is only present on pronouns, where accusative-specific morphology can be seen. More on Vainikka’s approach appears in Section 4.4.1.

A further complication in Finnish arises from the fact that plural nouns in both nominative and accusative have the *-t* suffix (25).

- (25) Plural *-t* on nominative and accusative
- a. Auto-**t** ovat kadu-**lla**.
 car-PL be.3PL street-INESS
 ‘The cars are in the street.’
- b. Osta-**n** auto-**t**.
 buy-1SG car-PL
 ‘I buy the cars.’

Finally singular nouns in the object position of an imperative verb are bare nouns (nominative) if the imperative is first or second person, but have genitive *-n* with third person imperatives, which are only used in literary language

³See Chapter 3 for more detail on the contexts in which partitive is used.

(Karlsson 1999:166), as with indicative verbs (26).

- (26) Finnish imperative
- a. Second person imperative
 Maalaa Jukka!
 paint.IMP Jukka
 ‘Paint Jukka!’
 - b. Third person imperative with *-n* (slightly archaic)
 Maal-oot Juka-**n**!
 paint-3PL Jukka-GEN
 ‘Let them paint Jukka.’

Thus the traditional analysis of Finnish accusative states that it is a split case, each of its exponents being syncretic with another case in another category. In Chapter 3 I analyse the *-n* ending as consistently genitive, regardless of position. In the Section 4.4.1 I propose that the *-t* suffix and bare form also be analysed as consistently separate categories because, as observed in Kiparsky (2001) their use is syntactically determined.

Like Finnish, Russian accusative, as it is standardly analysed (cf. Franks 1995, Timberlake 2004), exhibits syncretism with the nominative and the genitive, and is uniquely marked only in one declension and on pronouns. Only the declension in *-a* (largely but not exclusively feminine nouns) has morphology specific to accusative case. In the other declensions, animate nouns have an accusative syncretic with genitive and inanimate nouns have an accusative syncretic with nominative. (27) illustrates these patterns.

(27) Russian accusative syncretism

	<i>-a</i> decl animate	<i>-a</i> decl inanimate	masculine animate	masculine inanimate
Case	‘daughter’	‘pen’	‘husband’	‘house’
Nom	dočka	ručka	muž	dom
Acc	dočku	ručku	muža	dom
Gen	dočki	ručki	muža	doma

Here it seems that the connection with animacy suggests a semantic basis for the pattern.

These two-way patterns of syncretism are not good candidates for purely morphological treatment because the form used is determined by the syntactic context and semantic content. In Finnish it relates to the form of the verb and the type of object and in Russian it appears to be tied to animacy. These are patterns of behaviour that are not predicted by standard Principles and Parameters approaches to Case.

4.2.4 Interim conclusion: no abstract accusative Case

What is standardly termed accusative stems from two sources: firstly the marking found on direct objects, along with the same marking when found elsewhere (ECM subjects, time and measure phrases), and secondly the assumed abstract presence of such a feature in the same set of contexts, even when the marking is absent. Thus items termed accusative may actually belong to a number of different classes. Many languages appear to lack an accusative case form that is used regularly on nouns and pronouns, animates and inanimates, definite and indefinite nouns, alike. For example, English has no obvious accusative amongst nouns, and Finnish and Russian have a multi-way syncretic class commonly termed accusative.

Even Hungarian, though it does have an accusative form distinct from all other cases on nouns and pronouns (28), does not have a single form common to both nouns and pronouns, the first and second person accusative pronominal forms looking very different from the more regular nominal and third person pronominal forms. The first and second person forms involve agreement suffixes, agreeing with the person and number of the pronouns, and alternative forms based on the inessive case. Glosses here are technically approximate, aimed at being as descriptive as possible, and I do not suggest that a full syntactic account should be found for the forms, but rather for the difference between full nouns and third person pronouns patterning differently from first and second person pronouns, which pattern with other syntactic behaviour mentioned below.

- (28) Hungarian accusative on nouns and pronouns
- a. Full noun
fiú-t / fiú-k-at
boy-ACC / boy-PL-ACC
 - b. Third person pronouns
ő-t / ő-k-et
3.ACC / 3-PL-ACC
 - c. Singular first and second person pronouns
en-gem-(et) / té-ged-(et)
1SG.PRO-1SG.AGR-ACC / 2SG.PRO-2SG.AGR-ACC
 - d. Plural first and second person pronouns
mi-nk-et / benn-ünk-et /
1PL.PRO-1PL.AGR-ACC / INESS-1PL.AGR-ACC /
ti-tek-et / benn-etek-et
2PL.PRO-2PL.AGR-ACC / INESS-2PL.AGR-ACC

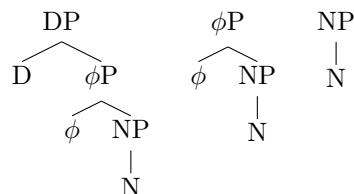
On this basis it appears to be necessary to reconsider what constitutes accusative case. I propose that the only instances of accusative case are those where there is morphology visible on the (pro)noun which is specific to the direct object position, not syncretic with any other case. This makes the distribution of accusative narrower than previously assumed, discounting instances of abstract accusative standardly assumed for English full nouns in direct object

position.

4.3 Nominative and accusative as ϕ and D

I have suggested that it is worth questioning the idea that accusative Case is syntactically present where it is not morphologically present. New insights into the structure of nouns and pronouns (Cardinaletti and Starke 1999, Déchaine and Wiltschko 2002, Weerman and Evers-Vermeul 2002, Neeleman and Szendrői 2007) show that they are not as interchangeable as previously assumed, as they have different structures, variably spelling out different functional projections of the noun. Déchaine and Wiltschko (2002) claim that pronouns are not uniform syntactic objects, but rather that they vary between pro-DP, pro- ϕ P, and pro-NP, as illustrated in (29). ϕ P is used as a cover term for any intermediate functional projection that intervenes between NP and DP, leaving open the question whether multiple projections are needed. Déchaine and Wiltschko claim that this level encodes ϕ -features, which include number and gender, and in some cases person, but lacks inherent semantics.

(29) Déchaine and Wiltschko's decomposition of pronouns



If this is true, then it may no longer make sense to assume that case seen on pronouns is present on full nouns when it is not seen. Rather, it might be worth reformulating the question of the appearance of a nominative-accusative distinction on pronouns but not full nouns in English, to ask what pronouns need in object position (and a few other positions) which full nouns do not. This shifts the focus away from the standard view of assignment or checking with particular categorial heads, or from θ -roles, expecting instead an answer connected with the nominal item itself, which is consistent with the reasoning about D-cases and P-cases in the previous chapters.

We know that full nouns in English are DPs, since there are overt articles. At the same time, full nouns appear not to need a nominative-accusative case distinction (30).

(30) English DPs, no accusative case

- a. The man chased the dog.
- b. The dog chased the man.

Déchaine and Wiltschko (2002:425) claim that English first and second person pronouns are pro-DPs, and third person pronouns are pro- ϕ Ps, on the basis of various diagnostics, thus providing a possible difference. In this section I show that English nominative and accusative pronouns, along Déchaine and

Wiltschko's line of reasoning, cannot have the same structure as one another. I argue that nominative pronouns spell out ϕ P and accusative pronouns spell out DP. Thus the notion of decomposition of the noun phrase to account for differences in pronominal behaviour can also be used to account for differences in case marking, the cases being linked to different heads within the noun phrase, a possibility not explored in Cardinaletti and Starke (1999) or Déchaine and Wiltschko (2002).

In Déchaine and Wiltschko (2002), pronouns are analysed as spelling out one of the three structures in (29) on the basis of several different diagnostics, as summarised in (31).

- (31) Summary of diagnostics for analysis of pronominal structures
(Déchaine and Wiltschko 2002:410)

	Pro-DP	Pro- ϕ P	Pro-NP
Syntax	D, morphologically complex	neither D nor N	N
Distribution	argument	arg/pred	predicate
Semantics	definite	-	constant
Binding	R-expression	variable	-

They also relate the decomposed structure to obviation patterns, claiming that proximate markers are ϕ and obviative markers are D, in examples such as (32) from Plains Cree.

- (32) Plains Cree proximate and obviative markers
(Déchaine and Wiltschko 2002:433)

- a. ... êkota â-wâpamâ-cik iyâhciyiniwak ôhi nêhiyaw-a.
... there COMP-see-3PL.PROX Blackfoot.PROX these Cree-OBV
'... there the Blackfoot caught sight of the Cree.'
- b. Miyê-w misatim-wa ôhô kisêyini-wa êwakô.
give-3SG.PROX horse-OBV that old.man-OBV this
'He gave a horse to the old man.'

Déchaine and Wiltschko (2002) claim that a DP can only act as an argument and not as a predicate, whereas ϕ P may have predicate status. On this basis, (33) suggests that the pronouns have ϕ P status.

- (33) Pronouns as predicates (Déchaine and Wiltschko 2002:425)

- a. That's **her**.
b. That's **me**.
c. That's **you**.

However, here again there is a difference between nominative and accusative. (34) shows that only accusative, and not nominative, can act as a predicate in those pronouns that exhibit a case distinction.

- (34) Personal pronouns as predicates
- That's me/*I!
 - That's us/*we!
 - That's him/*he!
 - That's her/*she!
 - That's them/*they!

Note also that this works with a full subject and verbal predicate. For instance, in a context involving role-playing, one could say something like (35).

- (35) John is me/*I and I am him/*he.

Under Déchaine and Wiltschko's system, this suggests that nominative is DP and accusative is ϕ P, in contradiction to the performance with respect to binding. I suggest that the predication test may not be valid for English, since normal full DPs can act as predicates (36).

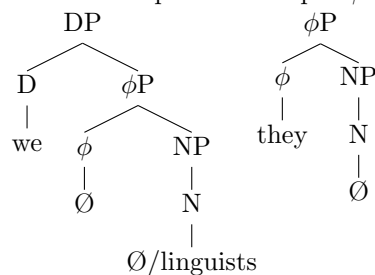
- (36) English DP acting as predicate
That's the/a problem.

Déchaine and Wiltschko further observe that plural first and second person pronouns can function as determiners but third person pronouns cannot (37).

- (37) English personal pronouns as determiners
- we / us linguists
 - you linguists
 - *they / *them linguists

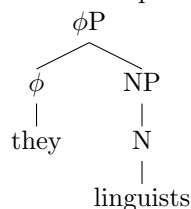
From this, Déchaine and Wiltschko conclude that first and second person plural pronouns are DPs and that third person pronouns are ϕ Ps, as in (38).

- (38) Pronouns as pro-DP and pro- ϕ P in Déchaine and Wiltschko (2002)



They claim that pro-DPs make an overt NP constituent available, whereas pro- ϕ Ps do not combine with overt NPs. However, there is nothing in the structure itself that would make this necessary, as shown in (39), producing a combination that is ruled out.

- (39) Structural potential for pro-
- ϕ
- P combining with a noun



They also do not discuss first and second person singular pronouns with respect to the diagnostics in (38). In the singular forms, it seems that use as a determiner is not possible. In (40) I have used full sentences to distinguish the unacceptable 2nd person form in its determiner use from the acceptable use in exclamatives, as illustrated in (d).

- (40) English 1st and 2nd person singular pronouns as determiners
- a. ***I linguist** am constructing a theory.
 - b. ***They** mistrust **me/you linguist**.
 - c. ***You linguist** are a fool.
 - d. You fool!

By this logic, then, *I*, *me*, and *you.SG* should all be pro- ϕ P. Again nominative-accusative differences amongst the pronouns are not directly considered.⁴ I suggest that this also is not a good diagnostic for the status of the pronouns. Combinations such as *we linguists* may be appositive constructions rather than structures with a noun and a determiner in its extended projection, the pronoun *we* occupying an argument position (specifier of T), and the noun *linguists* appearing as an adjunct to the pronoun. Given my assumption that fused morphology represents spell-out of XPs, rather than terminal nodes,⁵ it in any case seems likely that the English pronouns represent spell-out of DP (accusative) and ϕ P (nominative) rather than D and ϕ , thus ruling out the possibility that there could be an N spelt out lower in the structure.

Although I reject some of the final analyses of Déchaine and Wiltschko's proposal, I believe the notion of decomposition in such a structure has some explanatory power with respect to the behaviour of different nouns and pronouns. Returning to my suggestion that accusative is DP and nominative ϕ P, I suggest that this may tie in with some other puzzling behaviour of accusative. I observe above that English allows accusative subjects, as in (41), and that this is particularly natural when the pronoun is coordinated with a full noun.

- (41) English accusative subjects
- a. Me and my friends gossip all the time.
 - b. It's just not something me and my friends are ready for.
 - c. Him and his brother were coming home one night when...

⁴Déchaine and Wiltschko mention that certain dialects allow *them* to behave as a determiner (*them linguists*, cf. (37)), unlike *they*, but they do not systematically treat nominative-accusative differences in standard varieties of English, or other case differences in the other languages examined in the study.

⁵See Chapter 1 for my assumptions on spell-out.

- d. Bush and them are spying on people now.

A possible explanation might be that the full noun, being a DP, is thus a larger structure than a nominative pronoun ϕ P. Since there appears to be a preference for coordinating structurally equivalent items, the preference for accusative may result from the status of the accusative pronoun as DP. Coordination of *I and my friends* is coordination of non-matching ϕ P and DP, whereas coordination of *me and my friends* is coordination of matching DPs.

I propose extending the idea in Déchaine and Wiltschko (2002) that proximates are ϕ P and obviatives are DP to account for English pronouns. The nominative is used on the highest ranked argument, the subject. Accusative involves reference to a different entity. This idea can be employed to explain the need for a nominative-accusative distinction in pronouns but not in full nouns in object position. Amongst the pronouns the subject is effectively interpreted in the same way as proximate because it is ϕ P, and the object as obviative because it is DP, allowing it to act as an argument distinct from the subject. The subject does not need to be distinguished from any other argument, since it is the first and highest ranked argument, and perhaps by economy therefore has less structure, spelling out only what is necessary for a pronoun, namely person and number features, located in ϕ P. Since English full nouns are already DPs, having articles, there is no distinction between nominative and accusative. Both have independent reference without need for an obviative marker.

The proposal here provides a possible solution for a puzzle in binding theory. Sevcenco (2006) (referencing Rogers 1971; 1972; 1974, Potsdam and Runner 2001) notes that the pronoun *he* in (42) behaves as a bound variable, when according to Principle B it should be free in its Governing Category.

- (42) Obligatorily bound nominative pronoun
Richard_i seems like he_i is in trouble.

Under the account of nominative and accusative proposed here, nominative pronouns in this position should be bound, being more like proximately marked pronouns. Compare (43), where the accusative blocks the coindexation.

- (43) Obligatorily free accusative pronoun
*Richard_i seems like him_i.

Note also that when there is feature clash between the arguments the nominative pronoun is not bound (44).

- (44) Nominative not bound under feature clash
(examples from the internet checked with native speakers)
- a. Sometimes Bush's policies are so with it, and other times **they seem like he** must be from another planet...
 - b. I feel like with his actions **they seem like he** is guilty...
 - c. Her earlier dresses were stunning - now **they seem like she** is trying too hard to be current.
 - d. With regard to the itineraries - do **they seem like we** will be rushing around too much...

- e. My husband and myself meet with a lawyer this Monday.
He seems like I really have a case.

This suggests that the nominative, in the absence of feature clash, is co-indexed with the subject (thus in (43) but not (44)), whereas accusative is not (43), again making the two cases appear rather like proximate and obviative markers.

I therefore conclude that English nominative pronouns are ϕ P and accusative are DP. I relax Déchaine and Wiltschko's requirement that DP be definite (31), since I assume that indefinite articles also occupy D. In accordance with Déchaine and Wiltschko (2002) I do not rule out the possibility of expansion of the ϕ projection, which might eventually lead to a more precise picture of the cases in question. In the next section I show how Finnish and Hungarian can be seen to fit into such a system, completing the picture of the case paradigms in these languages.

4.4 Extending the analysis

4.4.1 Finnish

This section aims to complete the picture for Finnish, building on the analysis of P-cases in Chapter 2 and D-cases in Chapter 3. The following subsection examines the core cases in more detail, teasing apart nominative, accusative and genitive, since my approach differs somewhat from past analyses, and showing how an analysis along the same lines as that presented in the previous section can also be applied to Finnish, nominative this time emerging as NP and accusative as ϕ P, genitive and partitive being DP, consistent with Chapter 3. I then proceed to compare my approach to the division between the cases to that of Vainikka (1993), who divides the cases up in a similar way but explains their distribution based on the position of the nouns in the sentence and assignment by specific heads. I argue that my approach, explaining the distribution of cases according to the properties of the noun itself, has an advantage in terms of the cross-linguistic compatibility of the analysis of different cases.

The Finnish core cases

This section outlines the interactions between the three core cases in the Finnish case paradigm, nominative, accusative and genitive, introduced briefly in Section 4.2.3 above, addressing some controversies surrounding their analysis. The precise application of the terms nominative, accusative and genitive here has been controversial. My analysis differs from that of standard grammars of Finnish, as represented by Karlsson (1999) and the paradigms presented in Holmberg and Nikanne (1993), as well as the alternative approach proposed in Vainikka (1993). This has consequences for the glossing of cases in many of the Finnish examples.

(45) shows the nominative, accusative, genitive and partitive of full nouns, as well as a few of the putative P-cases (treated in detail in Chapter 2), as they are glossed in standard grammars. The partitive and the P-cases, illustrated in

(45) with inessive, elative, illative and adessive, do not represent a problem in morphological terms, being consistently marked with a clearly identifiable suffix.⁶ Note especially the multiple forms of accusative, each of which is identical to another case (the bare and *-t* forms with nominative, and *-n* with genitive).

(45) Finnish nominal case paradigm, as standardly labelled

Case	'house' SG	'houses' PL	Description
Nominative	talo	talo-t	basic form
Accusative	talo, talo-n	talo-t	direct object
Genitive	talo-n	talo-jen	possessor
Partitive	talo-a	talo-j-a	indefinite quantity
Illative	talo-on	talo-i-hin	to interior
Inessive	talo-ssa	talo-i-ssa	at interior
Elative	talo-sta	talo-i-sta	from interior
Adessive	talo-lla	talo-i-lla	at exterior

(46) shows the nominative, accusative, genitive and partitive in the animate personal pronoun paradigm. Note here that the pronominal accusative has one single form, which never overlaps with other cases.

(46) Finnish pronominal case paradigm

Case	1SG	2SG	3SG
Nominative	minä	sinä	hän
Accusative	minu-t	sinu-t	häne-t
Genitive	minu-n	sinu-n	hän-en
Partitive	minu-a	sinu-a	hän-tä
Case	1PL	2PL	3PL
Nominative	me	te	he
Accusative	me-i-dät	te-i-dät	he-i-dät
Genitive	me-i-dän	te-i-dän	he-i-dän
Partitive	me-i-tä	te-i-tä	he-i-tä

⁶These case forms do vary minimally for vowel harmony and consonant gradation. For example, (i) shows two possible forms of the partitive varying due to vowel harmony, with nouns containing back and front vowels.

- (i) Vowel harmony in case forms
- a. Back vowel, partitive
talo-**a**
house-PART
 - b. Front vowel, partitive
kät-**tä**
hand-PART

The partitive and the P-cases are, however, more consistent than the nominative, genitive and accusative as standardly analysed, in that they are clearly separable in form from one another. These phonological effects do not result in identity between the forms of two different cases, unlike the variation in accusative case form to be described under standard analyses, which makes the accusative noun identical either to the nominative or the genitive.

The most important point is my adjustment to the use of the term ‘accusative’ in full nouns and pronouns, applied to the items in boldface in (45) and (46).

The rationale behind terming this collection of nominal suffixes accusative in standard approaches is their occurrence in direct object position, where a pronoun always has the *-t* suffix. As shown in (47), the direct object form for a full singular noun has the *-n* suffix (a) in most contexts,⁷ whereas the plural has *-t* (b), as do the singular and plural pronouns (c-d). For ease of reference in these first illustrative examples I simply gloss the suffixes with the letter characteristic of the suffix, introducing the full labels below.

- (47) Finnish direct objects
- a. Singular noun: *-n* (cf. possessors (48))
 Osta-**n** auto-**n**.
 buy-1SG car-N
 ‘I (will) buy the car.’
 - b. Plural noun: *-t* (cf. plural subjects (50-b))
 Osta-**n** auto-**t**.
 buy-1SG car-T
 ‘I (will) buy the cars.’
 - c. Singular pronoun: *-t*
 (unique in pronouns, cf. plural subject nouns (50-b))
 Osta-**n** häne-**t**.
 buy-1SG 3SG.AN-T
 ‘I (will) buy him/her.’
 - d. Plural pronoun: *-t*
 (unique in pronouns, cf. plural subject nouns (50-b))
 Osta-**n** he-i-**dät**.
 buy-1SG 3PL-PL-T
 ‘I will buy them (animate).’

The identity of the *-n* suffix on the singular noun object in (47) with the possessor in nouns and pronouns is shown in (48).

- (48) Possessors (cf. sg noun direct object (47-a))
- a. Singular noun: *-n*
 Mari-**n** auto
 Mari-N car.NOM
 ‘Mari’s car’
 - b. Plural noun: *-n*
 koir-i-**en** auto
 dog-PL-N car.NOM
 ‘the dogs’ car’

⁷The exception to this is given in (49).

- c. Singular pronoun: *-n*
 hän-**en** auto-nsa
 3SG-N car-3SG
 ‘his/her car(s)’
- d. Plural pronoun: *-n*
 he-i-**dän** auto-nsa
 3PL-PL-GEN car-3PL
 ‘their car(s)’

The singular noun, however, appears with no marking when it is the object of an imperative verb, making it identical to the subject form (49). This differs from plural nouns and personal pronouns, which have *-t* in direct object position, as with other verbs.

- (49) Direct object of imperative verb
- a. Singular noun: bare (cf. subject (50-a))
 Maalaa auto!
 paint.IMP car.NOM
 ‘Paint the car!’
- b. Plural noun: *-t*
 (cf. plural object (47-b)-(47-d), plural subject (50-b))
 Maalaa auto-**t**!
 paint.IMP car-T
 ‘Paint the cars!’
- c. Singular pronoun: *-t* (cf. objects (47-b)-(47-d))
 Maalaa häne-**t**!
 paint.IMP 3SG-T
 ‘Paint him/her.’
- d. Plural pronoun: *-t* (cf. objects (47-b)-(47-d))
 Maalaa he-i-**dät**!
 paint.IMP 3PL-PL-T
 ‘Paint them!’

The difference between the singular full noun objects in (47) and (49) is standardly understood to be governed by Jahnsson’s rule, which states that verbs with overt subjects govern the *-n* accusative (cf. (47-a)), and verbs which have no overt subjects govern the endingless accusative (Kiparsky 2001) (cf. (49-a)), thus rather resembling an effect of Burzio’s Generalisation.⁸

In having no case suffix, nominal singular objects of first and second person imperatives and nominal plural objects have the same form as subjects of all types (50).

⁸Burzio’s Generalisation states that accusative case is absent when there is no external argument. See Chapter 1, Section 1.2.2 for more discussion.

- (50) Subject
- a. Singular noun: bare (cf. noun object of imperative verb (49-a))

Auto on kadu-lla.
 car be.3SG street-INESS
 ‘The car is in the street.’
 - b. Plural noun: *-t* (cf. plural objects, (47-b) and (49))

Auto-**t** ovat kadu-lla.
 car-T be.3PL street-INESS
 ‘The cars are in the street.’
 - c. Singular pronoun: bare (unique for pronouns)

Hän on kadu-lla.
 3SG be.3SG street-INESS
 ‘He/she is in the street.’
 - d. Plural pronoun: bare (unique for pronouns)

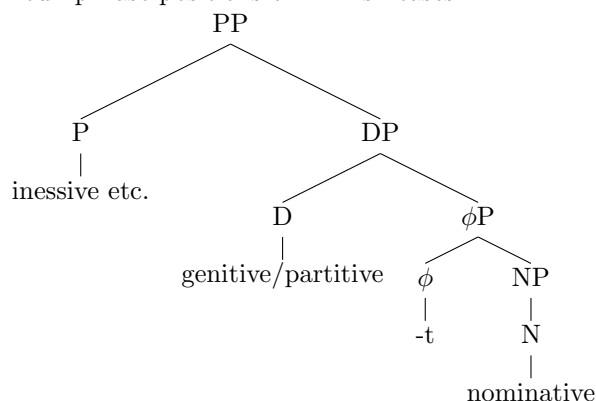
He ovat kadu-lla.
 3PL be.3PL street-INESS
 ‘They are in the street.’

The traditional view of the cases, represented in (45), is controversial, with various different analyses emerging in the theoretical literature. As Kiparsky (2001) points out, the case differences shown in (47)-(50) are syntactically determined (depending on the status of the verb as indicative or imperative and the status of the argument as a noun or pronoun), and are thus not appropriately dealt with in terms of nominal accusative having two allomorphs, each of which is syncretic with another case, as is suggested by the standard case table in (45). Vainikka (1993) also takes an alternative stance, such that each surface case in Finnish directly reflects underlying syntactic Case. For example, Vainikka views bare objects (49-a) as nominative, not as an alternative form of the accusative. She claims that only the *-t* suffix of pronouns and plural object nouns is accusative ((47-b)-(47-d), (49-b)-(49-d)), and that the *-n* suffix ((47-a), (48)) is always genitive. Although Vainikka claims that the only accusative morpheme is the *-t* of pronouns ((47-c)-(47-d) and (49-c)-(49-d)) and of plural direct objects (47-b), she does not make the connection with the *-t* on the plural noun subjects (50-b). Nominative is analysed as absence of case, on the basis that it is a bare form ((49-a), (50-a)). A more detailed comparison with Vainikka (1993) appears in the following section.

My approach is as far as possible to relate one morpheme to one case name. Like Vainikka, I adopt the view that the *-n* suffix is consistently genitive (glossed GEN, analysed as a D-suffix in Chapter 3), whether it appears on a possessor (48) or an object (47-a), and the bare form is consistently viewed as nominative (glossed NOM), whether it refers to a subject (50-a) or an object (49-a). I take the *-t* suffix of object pronouns ((47-c)-(47-d) and (49-c)-(49-d)) and of plural nouns ((47-b), (49-b), (50-b)) to be the same suffix, even when plural nouns are subjects (50-b). My reasons for making this connection between pronominal *-t* and plural nominal *-t* are as follows. Firstly, the subject and direct object forms of plural nouns are always identical. On the basis of

the forms in (45), it seems natural to analyse *-t* as a plural morpheme, and it must indeed have a pluralising function on the noun here, since the common plural marker *-i-* is absent in subject and object positions (cf. (45)). Secondly, the a similar *-t*⁹ appears as a direct object specific marker on the pronoun (47-c)-(47-d) regardless of number, both paradigms changing to genitive *-n* in the same circumstances (possessive constructions (48)) and failing to change to genitive under the same circumstances (in object position, in contrast to singular nouns (47)). This cannot be taken as a simple pronoun-noun difference in morphological marking, because the singular noun uses the *-n* suffix (identical to genitive) in object position except on the singular noun (47-a). This same genitive *-n* suffix is equally available to the plural noun and pronoun (48), but is not utilised in direct object position. I propose that the *-t* suffix spells out number features, without specifying singular or plural, and is located in ϕ P, below DP and dominating NP, in accordance with the noun phrase structure in (51).

(51) Noun phrase positions of Finnish cases



(52) outlines how I refer to the different cases. The column with the marking notes the identifying form of the morpheme in question. The column headed ‘informal name’ gives the name with which I refer to the form in the text, and the gloss used in examples is intended to reflect this name. The ‘syntactic status’ column shows what I argue to be the underlying status of the morphemes in question. Analyses of the genitive and partitive appear in Chapter 3, Section 3.2, and the fused Number morpheme in Section 3.3.3.

(52) Glossary of terms for controversial Finnish morphemes

Marking	Informal name	Gloss	Syntactic status
Bare form	nominative	unglossed	absence of case
<i>-t</i>	accusative	T	Number
<i>-i-</i>	<i>-i-</i> plural	PL	fused Number
<i>-n</i>	genitive	GEN	D(eterminer)
<i>-a/ä</i>	partitive	PART	D(eterminer)

⁹On the singular pronoun the form is directly identical, and on the plural pronoun it is similar, having the form *-dät*.

My account of the distribution of the cases within the sentence involves the grammatical meaning of each individual case. The modifications to the standard Finnish case terminology reflect the difference between my approach, relating cases to the structure of the noun, and standard grammars, which label cases according to the noun phrase external syntactic environment.

Extending the proposal for English pronouns presented in Section 4.3, I suggest that the solution for subject-object differences in Finnish is similar to that proposed for English above. (53) shows again the pattern of full nouns and pronouns in direct object position.

(53) Finnish objects: genitive on nouns, accusative on pronouns

Silja söi leivä-**n** / hän-**et**.
 Silja eat.PST.3SG bread-GEN / 3SG-ACC

‘Silja ate the bread / him.’

The *-n* on the full noun is genitive and spells out D, as argued in Chapter 3. In Section 4.3 I suggest that English, because it has DPs for both subject and object full nouns, does not require a special obviative marker, these structures in English already having independent reference. I propose that the *-t* suffix on the object pronoun has a similar function, but spelling out ϕ P, the bare noun ((49-a) and (50-a) and nominative pronoun (50-c)-(50-d) both spelling out N, since there are no articles in Finnish, unlike in English.

The fact that the pronominal accusative is identical to the full nominal plural suffix (54) suggests that it is located in the functional projection of the noun.

(54) Plural *-t* on nominative and accusative

- a. Auto-**t** ovat kadu-**lla**.
 car-PL be.3PL street-INESS
 ‘The cars are in the street.’
- b. Osta-**n** auto-**t**.
 buy-1SG car-PL
 ‘I buy the cars.’

This suggests that *-t*, even in (53) is associated with the head which contributes the plural feature, ϕ P. The *-t* morpheme is a semantically underspecified morpheme of category ϕ . When it is present, one of two possible marked readings is obtained: it is interpreted either as plural or as an obviative marker, depending on the context. Animacy also plays a role here, as only the pronouns referring to animate beings have the *-t* accusative, the inanimate *se* (3SG.INAN) and *ne* (3PL.INAN), and demonstratives *tämä* (‘this’), *nämä* (‘these’), *tuo* (‘that’), and *nuo* (‘those’) having no accusative form, like the full nouns.

The difference between the imperative and indicative object ((49-a) and (47-a)), may also fit with the proposal, if one assumes that the imperative has no subject syntactically present (as opposed to pro-drop). An imperative verb might be argued to lack a subject on the basis of languages such as English, which does not normally have a subject in imperative constructions even though

it would not standardly be considered to be a pro-drop language. Thus in Finnish the noun is nominative (proximate) by economy, having NP structure because there is no need for the genitive DP to act as an obviative marker when it is the sole argument. The indicative verb has a subject, thus necessitating an obviative marker.

It remains a problem why pronominal forms have accusative *-t* (ϕ P) when they are objects of imperatives (55).

(55) Pronominal object of imperative verb

- a. Singular pronoun
 Maalaa häne-**t**!
 paint.IMP 3SG-T
 ‘Paint him/her.’
- b. Plural pronoun
 Maalaa he-i-**dät**!
 paint.IMP 3PL-PL-T
 ‘Paint them!’

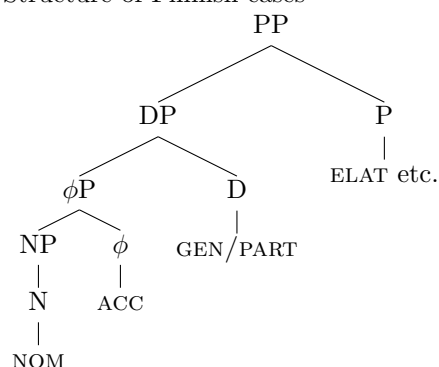
The full noun presumably takes this form for semantic reasons, needing ϕ P by virtue of being plural, as in (56).

(56) Plural noun object of imperative verb

- Maalaa auto-**t**!
 paint.IMP car-T
 ‘Paint the cars!’

To conclude, the choice of marking on the object noun (generally considered to be accusative marking) relates variably to DP (the *-n* suffix on full nouns), and to number and animacy, ϕ P (the *-t* on plural nouns and singular and plural pronouns), nominative being a bare noun, as in (57).

(57) Structure of Finnish cases



For instance, (58)-(60) give the structures of accusative, genitive, and elative

for the noun *talo* ('house').¹⁰

- (58) Structure of Finnish accusative (ϕ)
- ```

 ϕ P
 / \
 NP ϕ
 | |
 N -t
 |
 talo-

```
- (59) Structure of Finnish genitive (D)
- ```

      DP
     /  \
     $\phi$ P  D
   /  \  |
  NP   $\phi$  -n
  |   |
  N    $\emptyset$ 
  |
  talo-
  
```
- (60) Structure of Finnish elative
- ```

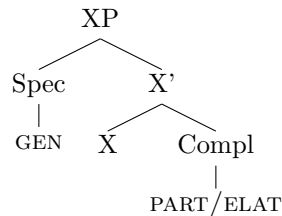
 PP
 / \
 DP P
 / \ |
 ϕ P D -sta
 / \ |
 NP ϕ \emptyset
 | |
 N \emptyset
 |
 talo-

```

### Vainikka (1993) on the Finnish core cases

Vainikka (1993) claims that genitive is the case of specifiers, partitive and elative of complements, as in (61).

- (61) Vainikka's structural default case positions



The genitive on direct object nouns percolates down to the object from the specifier position of the verb, the subject being moved from here to the specifier of IP if an agreement relationship holds. The case system proposed is specific to Finnish and allows a close mapping between surface form and syntactic Case.

<sup>10</sup>See Chapter 3 for more details of the D-case and P-case structures. The elative structure is simplified here, but the P-case structure is given in full detail in Chapter 3.



Accusative is the only case that is *assigned* in the way conventional in the Government and Binding approach (Chomsky 1981). On Vainikka's account, it is assigned by the feature [+COMPLETED] on the verb, and is only seen on the pronoun. Genitive, partitive, and elative are analysed as 'structural default cases,' the cases nouns and pronouns exhibit because of their structural position. Genitive is the default for specifier positions, and partitive and elative for complement positions, as in (62). Vainikka claims that the choice between partitive and elative is determined according to whether the noun in this position (sister to the right of the head) is an argument (partitive) or not (elative) (Vainikka 1993:157).

Nominative is analysed as absence of case, on the basis that it is a bare form. The assignment mechanisms are explained as follows. (62) shows a nominative subject with genitive object.

- (62) Nominative subject, genitive object by percolation  
(Vainikka 1993:157)

Pekka maala-si            Juka-n.  
Pekka painted.PST-3SG Jukka-GEN

'Pekka painted Jukka.'

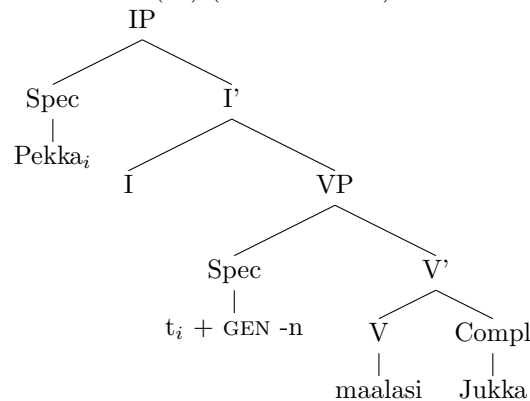
Vainikka claims that the subject is nominative (lacking case) when it moves to enter into an agreement relation with the verb. The mechanism by which genitive case arrives on object nouns is somewhat complex. The genitive is the default case of the specifier position across all four lexical categories, V, N, P and A. The subject originates in the specifier of VP, and when it moves for agreement, this leaves the genitive stranded in Spec-VP, as in (63)-(64).

- (63) Genitive case stranding in Vainikka (1993)

Pekka maala-si            Juka-n.  
Pekka paint.PST-3SG Jukka-GEN

'Pekka painted Jukka.'

- (64) Structure of (63) (Vainikka 1993)



The stranded genitive feature percolates downward to the object position, showing up on the object if it has no accusative case suffix, as in (62). Accusative has been assigned by the [+COMPLETE] verb to its object, but has not been spelt out because of a gap in the nominal paradigm, as in (65).

- (65) Accusative gap in the nominal paradigm

| Case       | Noun 'house'   | Pronoun 1SG |
|------------|----------------|-------------|
| Nominative | talo           | minä        |
| Accusative | <b>*talo-t</b> | minu-t      |
| Genitive   | talo-n         | minu-n      |

The pronoun in object position (66) does have an accusative suffix *-t*, and therefore the percolated genitive is not realised on it.

- (66) Nominative subject (moved for agreement) with accusative pronominal object (Vainikka 1993:157)

Pekka maala-si hän-et.  
 Pekka. paint.PST-3SG 3SG-T

‘Pekka painted him.’

Vainikka further claims that the genitive percolation mechanism occurs late in the derivation after accusative assignment, arguing that this explains the lack of genitive on plural nouns (67), since these already have the plural suffix *-t*, assigned by the verb.

- (67) Nominative subject (moved for agreement) with plural nominal object

Pekka maala-si talo-t.  
 Pekka paint.PST-3SG house-T

‘Pekka painted the houses.’

The object in (68) appears without case because the noun has no available accusative suffix to realise accusative assigned by the verb (65), and there is no overt subject to take the genitive case, and thus no stranded genitive needing a place to be spelt out (Vainikka 1993:158).

- (68) No overt subject, nominative object (no genitive to percolate)  
 (Vainikka 1993:157)

Maalaa Jukka!  
 paint.IMP Jukka

‘Paint Jukka!’

Finally, the object in (69) has partitive marking because the verb is [-COMPLETE] and thus assigns no accusative, allowing the object to take default complement case, which is partitive.

- (69) Partitive object with [-COMPLETE] verb (Vainikka 1993:157)

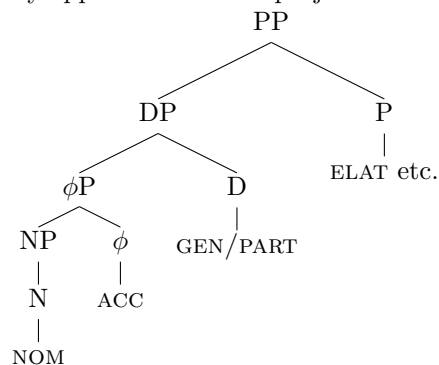
Riitta luki kirja-a.  
 Riitta read.PST.3SG book-PART

‘Riitta was reading a / the book.’

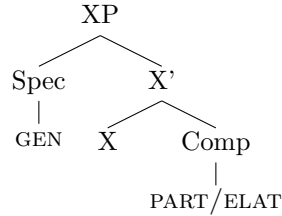
A disadvantage of Vainikka’s approach is that it adds a new type of Case to the structural/inherent distinction, *structural default* case. Unlike the accusative, which is assigned in the way generally assumed for structural Case in Government and Binding, genitive, partitive, and elative are defaults of the specifier and complement positions within the X-bar structure, relative to the lexical head N, V, P or A. There is an additional complication in deciding the case of complements, argumental complements having partitive and non-argumental complements having elative. This is unlike types of Case proposed in Government and Binding, and is also not transferable in any straightforward way to other languages. Furthermore, the implicit idea of a morphological gap for accusative Case on the noun seems implausible, given the consistent syntactic contexts in which the different alternatives (*-n* and bare) turn up on the noun, and the fact that nouns clearly can be marked with a suffix that looks like the accusative *-t*, in the plural. Vainikka does not link the pronominal direct object *-t* with the plural nominal *-t*, as I do, though she does claim that both block realisation of the percolated genitive. She claims that this percolation occurs later in the derivation.

My account differs from that of Vainikka’s in that it attributes the different cases to different projections of the noun (70), rather than associating them with the structural environment in which the noun is merged or to which it moves (71), repeated from (61).

- (70) My approach: cases as projections of the noun



- (71) Vainikka's approach: cases associated with positions in XP



My account of the distribution of the cases within the sentence then involves the grammatical meaning of each individual case. Vainikka's approach, though it derives the correct distribution for Finnish, makes the language look highly exceptional in a cross-linguistic perspective, suggesting that Case (and by implication noun phrase licensing) is a highly language-specific process. My approach, relating the cases to functional projections of the noun already independently needed, captures parallels with typologically very different languages, allowing a similar explanation for Finnish and English noun-pronoun asymmetries in case marking.

#### 4.4.2 Hungarian

Hungarian is unlike Finnish in having articles *a* ('the') and *egy* ('a'), as well as a number separate plural morpheme *-k*. Nevertheless, accusative still seems to have some association with DP, showing a clear interaction with definiteness. This can be seen from the fact that the definiteness or indefiniteness of the object determines the type of agreement seen on the verb. Thus the expression of subject agreement on the verb in (72) varies according to the definiteness status of the object.

- (72) Hungarian indefinite and definite agreement (Rounds 2001:23)

- a. Indefinite conjugation for indefinite object

Lát-**ok**            **egy** ház-at.  
 see-1SG.INDEF a    house-ACC  
 'I see a house.'

- b. Definite conjugation for definite object

Lát-**om**        a ház-at.  
 see-1SG.DEF the house-ACC  
 'I see the house.'

The fact that accusative specifically is involved is illustrated by the disappearance of the type of distinction in (72) when the object is not accusative, as in (73).

- (73) Lack of indef/def distinction for non-accusative objects

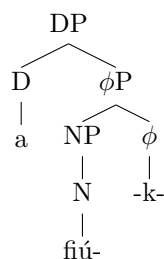
Hisz-**ek** (a**z**) egyszarvú-k-ban.  
 believe-1SG the unicorn-PL-INESS

‘I believe in (the) unicorns.’

On this basis I hypothesise that the Hungarian accusative is also situated in D, also acting as an obviative marker. Several characteristics of the case provide support for this. Firstly, the accusative follows the plural suffix, suggesting that it is higher than  $\phi$ P, as in (74).

- (74) Hungarian accusative

a fiú-k-at  
 the boy-PL-ACC



The spell-out of Hungarian D, where it involves an article and accusative *-t* is slightly more complex than the spell-out of P-cases described in Chapter 2. The P-cases are spelt out in one location, as a suffix on the noun, but the variety of D involving an article and accusative is spelt out partly on the preceding word (the article encoding definiteness or indefiniteness), and partly as a suffix on the noun.

This fits a type of lexical insertion in the Distributed Morphology framework known as fission, proposed by Noyer (1997), which allows for discontinuous exponence of a particular morpheme in separate vocabulary items. An example from the Distributed Morphology literature is exponence of agreement on the verb in Tamazight Berber, exemplified in Harley and Noyer (1999). The agreement morpheme appears variably as one, two or three separate Vocabulary Items, including both prefixes and suffixes, as in (75).

- (75) Tamazight Berber agreement on the verb
- dawa*
- ‘cure’
- 
- (Harley and Noyer 1999)

|    | singular | plural     |
|----|----------|------------|
| 3m | i-dawa   | dawa-n     |
| 3f | t-dawa   | dawa-n-t   |
| 2m | t-dawa-d | t-dawa-m   |
| 2f | t-dawa-d | t-dawa-n-t |

From this the vocabulary items are analysed as in (76).

- (76) Vocabulary items from (75) (Harley and Noyer 1999:19)
- |      |   |          |
|------|---|----------|
| /n-/ | = | 1 pl     |
| /t-/ | = | 2        |
| /t-/ | = | 3 sg f   |
| /-m/ | = | pl m (2) |
| /i-/ | = | sg m     |
| /-d/ | = | sg (2)   |
| /-n/ | = | pl       |
| /-t/ | = | f        |

The features in parentheses in (76) refer to vocabulary items that must be discharged before the feature preceding the one in parentheses can be inserted. Thus *-m* can only be inserted on the verb if *t-* ‘2’ has already been inserted. Fission involves the creation of an additional slot for exponence of a vocabulary item. Instead of the vocabulary items being in competition for a single position, an additional position is made available when the vocabulary item is inserted. The form *t-dawa-n-t* in (75) involves fission: instead of the three affixes competing for the agreement slot, each time one is inserted a new slot is created for another.

I suggest that in Hungarian fission allows for the insertion of both the article and the obviative marker. The structure is as in (74). After spell-out, vocabulary insertion takes place, but for this particular variety of D more material is inserted than just the determiner *a*, *-t* also being suffixed to the noun.

Secondly, accusative is phonologically smaller than the other cases (P-cases under my assumptions), which involve the addition of a full syllable to the noun, something which does not necessarily occur with accusative (77).

- (77) Hungarian accusative vs other cases
- |    |           |  |
|----|-----------|--|
| a. | fiú-t     |  |
|    | boy-ACC   |  |
| b. | fiú-nak   |  |
|    | boy-DAT   |  |
| c. | fiú-val   |  |
|    | boy-INSTR |  |

Hungarian first and second person pronouns (78) have forms reminiscent of the possessive paradigm (79) (unlike third person pronouns and full nouns).<sup>11</sup> The connection with possession suggests a connection with definiteness, as argued in Chapter 3 with respect to Finnish genitive.

<sup>11</sup>See Chapter 2 for more detail on the Hungarian pronominal paradigm. There I argue that nominative and accusative cannot be treated as P-cases on this basis.

- (78) Hungarian accusative 1st/2nd person pronouns
- a. Singular first and second person pronouns  
 en-gem-(et) / té-ged-(et)  
 1SG.PRO-1SG.AGR-ACC / 2SG.PRO-2SG.AGR-ACC  
 ‘me’ / ‘you’
- b. Plural first and second person pronouns  
 mi-nk-et / benn-ünk-et /  
 1PL.PRO-1PL.AGR-ACC / INESS-1PL.AGR-ACC /  
 ti-tek-et / benn-etek-et  
 2PL.PRO-2PL.AGR-ACC / INESS-2PL.AGR-ACC  
 ‘us’ / ‘you’
- (79) Hungarian possession
- a. a(z) (én) ház-om  
 the 1SG-house-1SG  
 ‘my house’
- b. a (te) ház-od  
 the 2SG-house-2SG  
 your house

Further evidence for situating accusative in DP comes from the contrast between regular definite object nouns and possessed object nouns (80). On possessed object nouns it appears that the accusative *-t* can be (and is normally) omitted on first and second person singular pronouns in speech.<sup>12</sup>

- (80) Hungarian definite and possessed object nouns
- a. Definite object noun, article and obligatory accusative *-t*  
 Lát-om a ház-at.  
 see-1SG.DEF the house-ACC  
 ‘I see the house.’
- b. Possessed object noun, article and optional accusative *-t*  
 Lát-om a ház-od(-at).  
 see-1SG.DEF the house-2SG.POSS(-ACC)  
 ‘I see your house.’

(80) shows that the possessor makes the accusative marking unnecessary, suggesting that they perform overlapping functions.

Thus Hungarian accusative has a clear link with the determiner layer, suggesting that it is related to DP. Nominative, the bare form, is naturally analysed as N.

The different marking of accusative first and second person pronouns is due to the fact that these spell out  $\phi$ , unlike the third person pronouns, which spell out D. Evidence for this comes from the fact that the definite paradigm of the verb is used with third person pronouns and the indefinite with first and second person pronouns, as in (81).

<sup>12</sup>Thanks to György Rákosi for bringing this to my attention.

- (81) Hungarian pronominal objects
- a. Third person object, definite paradigm  
 Látja ő-t.  
 see.3SG.DEF 3SG-ACC  
 ‘He/she sees him/her.’
- b. Second person object, indefinite paradigm  
 Lát té-ged.  
 see.3SG.INDEF 2SG.PRO-2SG  
 ‘He/she sees you.’

## 4.5 Reasons for the nominative-accusative case distinction

A large body of research, in the wake of Burzio’s Generalisation (Burzio 1986), has sought to explain the tendency of accusative to disappear in the absence of nominative in a variety of contexts. This tendency is illustrated with unaccusativity and passivisation (82)-(83).

- (82) Disappearance of accusative under unaccusativity
- a. Accusative verb  
 She drowned **\*he/him**.
- b. Unaccusative verb  
**He/\*Him** drowned.
- (83) Disappearance of accusative under passivisation
- a. Active  
 She drowned **\*he/him**.
- b. Passive  
**He/\*Him** was drowned.

I suggest that the Finnish indicative and imperative constructions ((84) where the marking is genitive, rather than accusative, as argued above), can be seen as part of the same phenomenon.

- (84) Finnish object marking with imperative verbs
- a. Indicative verb with *-n*  
 Pekka maala-si Juka-**n**.  
 Pekka painted.pst-3SG Juka-GEN  
 ‘Pekka painted Jukka.’
- b. Second person imperative with bare object  
 Maal-aa Jukka!  
 paint-2PL Jukka  
 ‘Paint Jukka!’

Different approaches rest on the idea of ordered assignment (nominative being assigned to the most prominent argument not bearing inherent Case and ac-



cusative only if another is available) as in Yip et al. (1987), or economy and locality effects as in Woolford (2003). Since the approach to the nominative-accusative distinction outlined in this chapter differs significantly from past work, separating the cases from the notion of assignment, I offer a tentative proposal to explain such effects under the present view.

It has often been suggested that cases distinguish nouns from one another. Aissen (1997; 1999; 2003b) talks explicitly about distinguishing the object from the subject by means of case. Such approaches often focus on making the distinction in terms of agent-patient or transitivity scale differences, as in Hopper and Thompson (1980). I argue that the correlation between  $\theta$ -role and accusative is not close enough for this analysis, especially given the appearance of accusative in non-object positions such as ECM subjects. Instead I have suggested that accusative works as an obviative marker. Where the object is an independent argument (rather than a reflexive or reciprocal pronoun), it must have accusative marking to distinguish it from the subject.

If accusative is assumed to be an obviative marker, then a good testing ground for the hypothesis is a context in which obviation is ruled out. One such context is that of reflexives and reciprocals. At first glance these may not seem to offer much support, since reflexive paradigms in well known case languages appear to have distinct accusative forms, as illustrated in (85) for Latin.

(85) Latin reflexives

| Case       | SE   |
|------------|------|
| Nominative | -    |
| Accusative | se   |
| Genitive   | sui  |
| Dative     | sibi |
| Ablative   | sē   |

On closer examination, however, it is clear that the *-m* suffix, common to nouns and demonstrative pronouns in accusative (86) is absent from the reflexive form, and that the other reflexive case forms also appear somewhat unusual.

(86) Latin nominal and demonstrative paradigms

| Case       | 'master' | 'this' |
|------------|----------|--------|
| Nominative | dominus  | ille   |
| Accusative | dominum  | illum  |
| Genitive   | domini   | illi   |
| Dative     | domino   | illo   |
| Ablative   | domino   | illo   |

Note further that the reflexive forms, in addition to being exceptional in case appearance, are also invariant for gender and number. On the basis of the unusual case forms, I suggest that the *se* form in (85) is not accusative in the

sense that *dominum* and *illum* in (86) are accusative.

I propose that the purpose of regular accusative morphology is as an obviative marker, often with rather wider applicability than the Algonquian obviative markers mentioned in Section 4.1 (see (3)), which apply only to third person arguments. The underlying intuition is that this is why accusative is more common on pronouns than on full nouns. Full nouns in languages such as English already having the right structure, by virtue of being DPs, to act as an independent argument, a separate entity from the subject. Accusative forms of anaphors often differ morphologically from the regular accusative in a given language. I argue that this is in fact lack of accusative case: in the sense that regular accusative morphology is seen as an obviative marker on the noun, the absence of this morphology on reflexives and reciprocals also translates to absence of an obviative marker.

In Finnish, reflexives and reciprocals are unlike full pronouns in that they do not have the regular accusative-specific *-t* suffix, and they involve items which appear to be lexically specified for co-reference, *itse* ('self') and *toinen toinensa* ('each other'). This proposal necessitates a separate account for SELF-reflexives in languages such as Finnish and English, where regular accusative morphology is present (him-self, etc.), but the blocking of coreference seems to be overridden by the use of -SELF. SELF-reflexives behave more like possessed nouns (e.g. *herself*, *myself*). Reinhart and Reuland (1993:658) claim that in SELF-reflexives, SELF occupies the N position and a pronoun or SE reflexive precedes it as a determiner. Finnish *itse* certainly appears to behave like a possessed noun, taking possessive agreement suffixes, as in (87).

(87) Finnish SELF anaphor with possessive suffixes

| Person | Singular | Plural   |
|--------|----------|----------|
| 1st    | itse-ni  | itse-mme |
| 2nd    | itse-si  | itse-nne |
| 3rd    | itse-nsä | itse-nsä |

Here I develop the idea that accusative case consistently spells out a higher structure than nominative case, and that although the precise structure varies from one language to another, the difference between the two allows the accusative to have its effect as an obviative marker. Thus English pronominal accusative is analysed above as DP and nominative as  $\phi$ P, whereas Finnish pronominal accusative was analysed as  $\phi$ P and nominative as NP, genitive DP also playing a role in obviation on full nouns.

Reinhart and Reuland (1993) argue that it is the property R (referential independence) which makes a pronoun different from an anaphor. SELF and SE-anaphors are alike in that they are [-R], having no referential independence. SELF-anaphors differ from SE-anaphors in having a reflexivising function. When a predicate is combined with a SELF-anaphor, it is reflexivised. SE, by contrast, is like a pronoun in this respect, in that it does not reflexivise the predicate (and can thus only be combined with predicates that are intrinsically reflexive). These features are summarised in the table in (88).

- (88) Properties of SELF- and SE-anaphor  
(Reinhart and Reuland 1993:659)

|                            | SELF | SE | pronoun |
|----------------------------|------|----|---------|
| Reflexivising function     | +    | -  | -       |
| R(eferential independence) | -    | -  | +       |

This is illustrated in the Dutch sentences in (89), where the anaphor *zich* behaves like a SE anaphor and *zichzelf* behaves like a SELF-anaphor. The verb in (a) is reflexive-marked by *zichzelf* (a SELF-anaphor with reflexivising function), making it a syntactically reflexive predicate. *Zichzelf* is [-R] and can thus be coindexed with the argument *Henk*. Condition B entails that the coarguments of a predicate that is not intrinsically reflexive can be coindexed only if one of the coindexed arguments is a SELF-anaphor. In contrast, neither *zich* nor *hem* has a reflexivising function, and, since the predicate is not intrinsically reflexive, the arguments cannot be coindexed. Thus both are ruled out. In the ECM sentence in (b), *zich* is permitted because it is part of the semantic predicate *zingen*. In the control sentence in (c), *zichzelf* is permitted in order to reflexive-mark the predicate *overreedde*.

- (89) SE and SELF-anaphors and pronouns illustrated with Dutch  
(Reinhart and Reuland 1993:(a) from 710, (b) and (c) from 711)
- Henk<sub>i</sub> hoorde zichzelf<sub>i</sub> / \*zich<sub>i</sub> / \*hem<sub>i</sub>.  
Henk heard himself / SE / himself  
'Henk heard himself.'
  - Henk<sub>i</sub> hoorde [zich<sub>i</sub> zingen].  
Henk heard SE sing  
'Henk heard himself sing.'
  - Henk<sub>i</sub> overreedde zichzelf<sub>i</sub> [PRO<sub>i</sub> te zingen].  
Henk persuaded himself PRO to sing  
'Henk persuaded himself to sing.'

The property [+R] is defined as in (90).

- (90) The property [+R] (Reinhart and Reuland 1993:697)  
An NP is [+R] iff it carries a full specification for  $\phi$ -features and structural Case.

The R feature is important for my proposal. I claim that accusative works like an obviative marker for a nominal, giving it referential independence from the subject. The present view of accusative differs significantly from that adopted in Reinhart and Reuland (1993) in that I do not recognise the presence of accusative where it is not morphologically visible, assuming instead that nouns and pronouns in object position without such marking are [+R] by other means (having DP status, for example).

Under the present proposal it is necessary to adjust the characteristics of anaphors and pronouns given in (88), in order to take into account the fact that nominative and accusative are now analysed as referentially different from

one another. I have changed the label from pronouns to ‘nominals.’ This is intended as a cover term for pronouns and nouns which exhibit a nominative-accusative morphological distinction along the lines described earlier in this chapter.

(91) Properties of nominative and accusative pronouns (cf. (88))

|                        | SELF | SE | nominative | accusative |
|------------------------|------|----|------------|------------|
| Reflexivising function | +    | -  | -          | -          |
| R                      | -    | -  | -          | +          |

This leaves another problem to be solved. (91) concludes that SE anaphors and nominative nouns and pronouns have the same characteristics. Note that in Italian the SE reflexive can also appear as a subject, where it is not interpreted reflexively, as in (92), a property that it has in common with nominative nouns and pronouns. In order to recognise this connection the property [+R] would need to be adjusted to refer to the independence from a more prominent argument in the same clause, so that it is also applicable to pronouns, a given for the subject but not the object.

(92) Identity of Italian anaphora and impersonal subjects  
(from Reinhart and Siloni 2005:391)

- a. Reciprocal  
Giovanni e Maria **si** sono abbracciati.  
Giovanni and Maria **SI** are hugged  
‘Giovanni and Maria hugged each other.’
- b. Impersonal  
**Si** mangia le mele.  
**SI** eats the apples  
‘One eats the apples.’
- c. Impersonal passive  
**Si** mangiano le mele.  
**SI** eat the apples  
‘The apples are (being) eaten.’

However, the identical features of nominative and SE in (92), raise the question why SE anaphors should ever be necessary, and what rules out sentences such as (93), where a nominative pronoun takes the position of the reflexive.

(93) Unacceptability of nominative pronouns in places of SE (Dutch)

- \*Jan<sub>i</sub> was-t hij<sub>i</sub>.  
Jan wash-3SG he  
‘Jan washes himself.’

A possible solution lies in the specific collections of  $\phi$ -features spelt out by these items, nominative pronouns still having fuller feature specifications, including

person, number and sometimes gender, than SE anaphors, which do not have number. I suggest that this is the key to the difference between SE-anaphors and nominative pronouns. Thus the present proposal fits in with the view of Binding presented here in that the property [+R] is tied to the level of structure of the noun or pronoun and their collection of  $\phi$ -features. Objects that are deficient in  $\phi$ -features are able to form well-formed chains with the subject. At first glance it might seem counter-intuitive to say that a full noun with lexical content is in need of anything to distinguish it from another noun. Note, however, that under the view of late insertion of lexical items adopted in Chapter 1, the lexical content of the noun is not available in the narrow syntax, at the point where binding configurations are established. Different languages seem to require obviation under different circumstances, as noted in Hopper and Thompson (1980).

I have argued that accusative morphology works as an obviation marker, explicitly distinguishing the object from the subject in syntax. The question remains why there should be a nominative which is morphologically distinct from accusative (lacking a marker to make it independent of other arguments) in some categories. I have suggested that the reason for the absence of a distinct nominative amongst English full nouns is that such nouns spell out DP, having overt determiners. The reason Finnish object nouns are argued to need genitive above, is that this allows them to spell out DP, giving them referential independence from the subject. The question is then why the subject could not have DP structure by means of genitive case as well. Here I suggest that the reason is economy. Additional structure is uneconomical where it is not required for semantic or syntactic reasons. English requires the determiner for semantic reasons, but Finnish subjects in initial position have a definite reading by default (Karlsson 1999:65). This reasoning works along the same lines as Optimality Theoretic accounts of case, such as those in Woolford (2003), where economy is expressed as a markedness constraint, and is prevented from reducing the input to nothing because it conflicts with constraints demanding faithfulness to the input. What the present approach adds to this idea is the notion that the markedness of one case over another could be directly linked to the amount of structure a noun with that case has. The more structure there is, the more marked an item is (Grimshaw 2001). Thus accusative is more marked than nominative where they are morphologically distinct, because it requires more structure than nominative.

## 4.6 Conclusion

This chapter addresses the idea that the difference between nominative and accusative case may also be anchored amongst functional projections of the noun, rather than being related to assignment or checking with functional categories of the verb, as standardly assumed in Principles and Parameters research and in traditional grammars. Unlike the putative P-cases and D-cases studied in the previous chapters, it seems that the nature of what has been called accusative case in different languages may be rather more diverse, spelling out  $\phi$

and D in different languages, nominative spelling out N and  $\phi$ . Although the analysis does appear at face value to necessitate considerable complications, the standard approach to accusative Case is complicated by the need for abstract accusative in many contexts where the case is not seen in the surface form. Taken in combination with proposals about cases related to the category P, the present proposal allows us to dispense with the notion of Case altogether, an issue addressed in more depth in Chapter 5.

One of the major findings of syntactic theory on accusative Case is Burzio's Generalisation, which has standardly been explained with the idea that light *v*P is responsible for both the assignment of the agent  $\theta$ -role and the checking of accusative Case. Woolford (2003) derives such effects on the basis that nominative Case is less marked than accusative Case, accounting for possible counterexamples to the generalisation on the basis of locality constraints. The present proposal can derive the same effects, as accusative is only necessary in the presence of an antecedent nominative, since only in this situation is there the potential for binding of the object by the subject, necessitating explicit obviation if they are not to be coindexed.

On the basis of the analysis presented here obviative markers appear to be more prevalent in the world's languages than previously thought. This proposal predicts that there should be no language which allows combinations of obviative marker and a separate morphological nominative-accusative distinction. The analysis further predicts that there are no languages with SE-reflexives that have regular accusative morphology identical to that on full nouns or personal pronouns. The proposal fits well with the idea that reflexives in general have less featural specifications than personal pronouns or full nouns.

## CHAPTER 5

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### Conclusion

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#### 5.1 Introduction

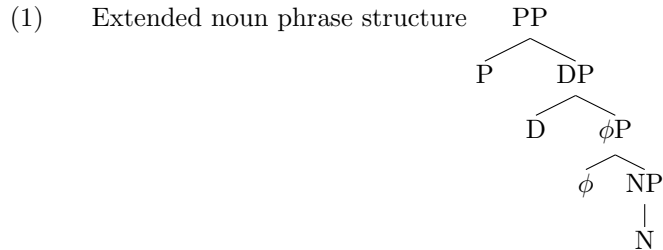
I have argued for a significant change to the view of case in syntax and morphology. This chapter summarises the main claims of the dissertation and explores their theoretical repercussions, also suggesting solutions for some problems raised. Section 5.2 summarises the main claims of Chapters 2, 3 and 4. Section 5.3 looks at the major theoretical implications for the view of morphological and syntactic case. Section 5.4 addresses case-related issues that have not been considered so far.

#### 5.2 Summary of the analysis

The main claim of the dissertation is that morphological cases are the spell-out of projections of the noun independently needed in syntax (P, D and  $\phi$ ), rather than the spell-out of uninterpretable features checked with the verb or other head external to the noun phrase. I propose that the differences between cases and the items normally analysed as P, D and  $\phi$  (adpositions, articles and number markers) arise not in syntax but in the morphological component. Section 5.2.1 summarises the way in which different cases are related to different heads for Hungarian and Finnish, and Section 5.2.2 addresses the mapping from syntax to morphology.

##### 5.2.1 Syntactic decomposition of case paradigms

I have argued for fitting case paradigms into the extended noun phrase structure in (1).

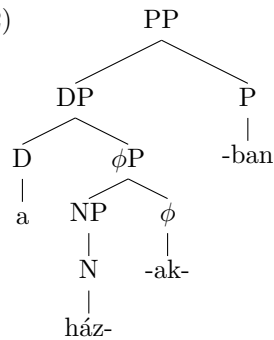


(2)-(3) illustrates the way in which such a structure would conventionally be used, describing a Hungarian noun phrase.

(2) Hungarian noun phrase

a ház-ak-ban  
 the house-PL-INESS  
 ‘in the houses’

(3) Structure of (2)



I have proposed that this structure can also account for case paradigms, the arguments focusing specifically on Hungarian (4) and Finnish (5).<sup>1</sup> (4) and (5) pair the different cases with their locations in the noun phrase according to my proposal.

<sup>1</sup>Finnish accusative is illustrated with a pronoun because this form does not exist for full nouns. See Chapter 4, Section 4.4.1, for more details.



## (4) Hungarian nominal case paradigm

| Case         | 'hour, time, watch' | Description            | Category |
|--------------|---------------------|------------------------|----------|
| Nominative   | óra                 | subject, citation form | N        |
| Accusative   | órát                | object                 | D        |
| Dative       | órának              | goal/recipient         | P        |
| Instrumental | órával              | means/instrument       |          |
| Illative     | órába               | to interior            |          |
| Inessive     | órában              | at interior            |          |
| Elicative    | órából              | from interior          |          |
| Sublative    | órára               | to exterior            |          |
| Superessive  | órán                | at exterior            |          |
| Delative     | óráról              | from exterior          |          |
| Allative     | órához              | to proximity           |          |
| Adessive     | óránál              | at proximity           |          |
| Ablative     | órától              | from proximity         |          |
| Causal       | óráért              | for the the sake of    |          |
| Essive       | óráként             | as                     |          |
| Terminative  | óráig               | as far as, until       |          |
| Translative  | órává               | into (change of state) |          |
| Distributive | óránként            | per                    |          |
| Temporal     | órákor              | at (time)              |          |
| Sociative    | órástul             | with                   |          |

## (5) Finnish nominal case paradigm

| Case        | 'bear'/3SG | Description            | Category |
|-------------|------------|------------------------|----------|
| Nominative  | karhu      | basic form             | N        |
| Accusative  | hän-et     | object                 | $\phi$   |
| Genitive    | karhun     | possessor              | D        |
| Partitive   | karhua     | indefinite quantity    |          |
| Illative    | karhuun    | to interior            | P        |
| Inessive    | karhussa   | at interior            |          |
| Elicative   | karhusta   | from interior          |          |
| Allative    | karhulle   | to exterior            |          |
| Adessive    | karhulla   | at exterior            |          |
| Ablative    | karhulta   | from exterior          |          |
| Abessive    | karhutta   | without                |          |
| Essive      | karhuna    | as                     |          |
| Translative | karhuksi   | into (change of state) |          |
| Comitative  | karhuine-  | with                   |          |

The peripheral, more semantically contentful cases are situated in P, the genitive and partitive in D, accusative variably in D and  $\phi$ , and nominative is the bare noun itself, in these languages. (6)-(7) illustrate the structures of Finnish

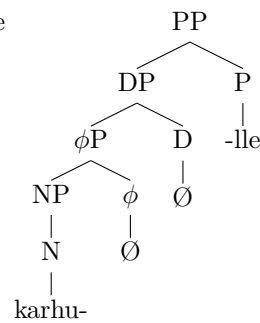
P-cases, with allative.

- (6) Finnish P-case

karhu-*lle*  
bear-ALLAT

‘onto the bear’

- (7) Structure of Finnish P-case

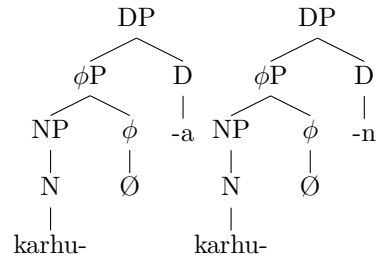


(8)-(9) illustrate the structures of Finnish D-cases, with partitive and genitive.

- (8) Finnish D-cases

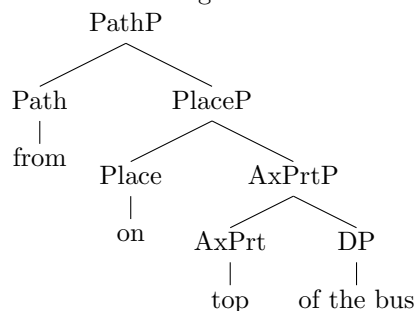
- a. karhu-*a*  
bear-PART
- b. karhu-*n*  
bear-GEN

- (9) Structure of Finnish D-cases



Arguments for considering the P-cases as members of the category P are presented in Chapter 2, and are based on their semantic overlap with adpositions, as well as evidence for the same complex internal structure for the cases as for adpositions in other languages. Recent approaches to the structure of spatial adpositions argue for separate heads for Path and Place, accommodating directional and locative content, as well as a head with nominal characteristics, Axial Part, specifying the place in more detail, as illustrated for English in (10).

- (10) Axial Part in English PP structures

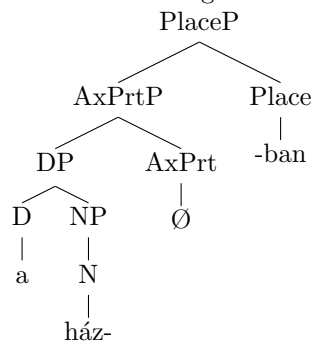


On this basis, it was argued that Hungarian P-cases have the complex structure in (11)-(12), as do the postpositions (13)-(14).<sup>2</sup>

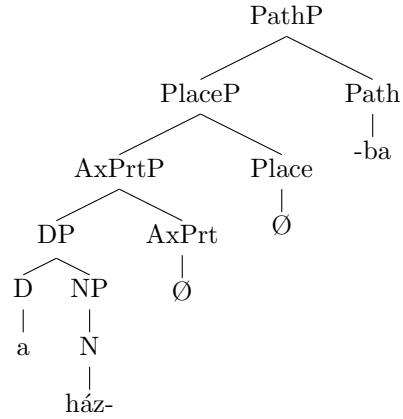
- (11) Hungarian nouns with P-cases

- a. Locative  
 a ház-ban  
 the house-INESS  
 'in the house'
- b. Directional  
 a ház-ba  
 the house-ILL  
 'into the house'

- (12) Structure of Hungarian nouns in (11)



<sup>2</sup>(13)-(14) are labelled as inflecting postpositions because they inflect for agreement with the pronoun. They do not agree with the full noun, but the term is used to distinguish them from a different class of non-inflecting Hungarian postpositions, which never inflect and which do not have the same structures as cases. Full details appear in Chapter 2, Section 2.2.



## (13) Hungarian inflecting postpositions

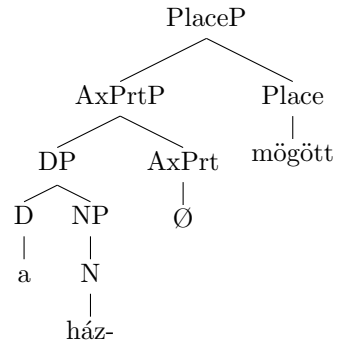
## a. Locative

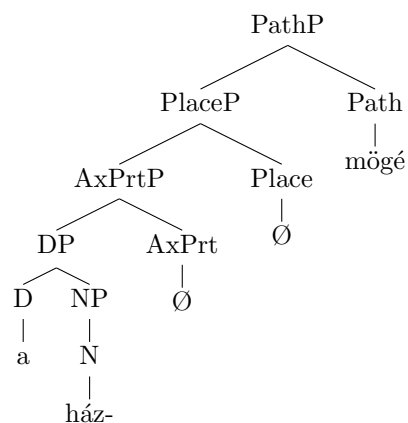
a ház mögött  
 the house.NOM behind  
 ‘behind the house’

## b. Directional

a ház mögé  
 the house.NOM to.behind  
 ‘to (the place) behind the house’

## (14) Structure of inflecting postpositions in (13)





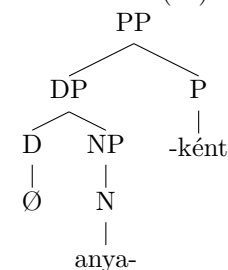
I further proposed in Chapter 2 that non-spatial cases and adpositions either had a simple P structure or could include an Axial Part, depending on the evidence for nominal characteristics in the element considered. Thus Hungarian P-cases such as (15) were analysed as simple P structures (16), on the basis that they have no agreeing form (agreement being taken as evidence of nominal characteristics) and no spatial meaning.

- (15) Hungarian non-agreeing case

anya-ként  
mother-ESS

‘as a mother’

- (16) Structure of (15)



Finnish partitive and genitive are argued in Chapter 3 to spell out the category D on the basis of the fact that their usage overlaps with determiners such as articles and negative polarity items in other languages, as well as the fact that Finnish lacks separate words for articles. In Chapter 4 Hungarian accusative was also argued to be D, on the basis of interactions with the verbal agreement paradigm, which is clearly linked to the definiteness or indefiniteness of an accusative object. Finnish accusative, on the other hand, was argued to spell out  $\phi$ P, on the basis of the fact that the pronominal object form *-t* is identical to the subject and object form of plural nouns, combined with the fact that the more regular plural marker *-i-* exhibits fusional characteristics, as argued in Chapter 3, Section 3.3.3.

Clearly the status of cases must be established for each language and case individually. In principle, however, there is reason to believe that the same arguments might carry over to many rich case systems.

### 5.2.2 Mapping between syntax and morphology

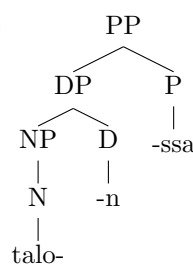
The proposal is that cases, which are generally bound morphology, and adpositions and determiners, which are generally separate words, form members of the same syntactic category. This requires an explanation for their different forms at PF. I suggest in Chapter 2 that the morphological form of P (a word or an affix) is determined partly by the nature of the phonological content at the point of insertion, after the narrow syntax. I observed there that Hungarian inflecting postpositions, which have the same syntactic structures as the P-cases, differ from them in having more phonological content, being polysyllabic, whereas all the P-cases are monosyllabic.

Since the cases are allocated to different heads, and since Hungarian and Finnish do not allow case stacking, it is also necessary to explain why combinations of cases do not arise, parallel to combinations of nominal categories which form separate words in languages such as English. For example expressions such as (17), which would have the structure in (18), are unacceptable in Finnish, but are perfectly acceptable in the English translation, which has the same structure.

- (17) Impossibility of combining genitive and P-suffix

\*talo-**n-ssa**  
house-GEN-INNESS  
'in the house'

- (18) Structure of (17) (ungrammatical)



To resolve this problem, I propose that languages are individually specified for the number of morphemes of different types that different categories can host. The Finnish noun is limited to one suffix spelling out a head in the extended projection of the noun phrase, and one spelling out agreement, as in (19).

- (19) Finnish case and agreement

(min-un) talo-ssa-ni  
1SG-GEN house-INNESS-1SG  
'in my house'

When both P and D are filled in syntax, morphological competition takes place. P is always spelt out where there is competition with D, because it has more phonological content. Thus the case seen on the noun is the highest one present, but it does not exclude the possibility that lower ones are present and not spelt out.

This system allows us to recognise syntactic parallels between cases and adpositions, and between cases and determiners, and to derive the differences in the morphological component.

### 5.3 Theoretical Implications

I have argued that all the cases in the paradigms in Finnish and Hungarian are associated with P, D,  $\phi$ , and N. There is thus a mismatch between the morphological paradigm and comparable minimal pairs at the syntactic level. For example the morphological paradigm in (5) relates to several different sets of minimal pairs of changes in syntax. The partitive and genitive, for example, represent a minimal pair of D-cases (8)-(9), and cases marked P in (5) represent a paradigm in the sense that the same part of the structure changes in each case. This raises the question whether it is still necessary to have an independent notion of syntactic Case or morphological case at all. I suggest that all related issues can be transferred to the P, D and  $\phi$  heads. Section 5.3.1 discusses the role of Case in noun phrase licensing in the Principles and Parameters framework, questioning whether this is still necessary, and Section 5.3.2 examines the notion of a case paradigm under the current proposal.

#### 5.3.1 Noun phrase licensing

In this section I address a few of the key notions regarding Case which have arisen in syntactic theory and how my proposal relates to them, suggesting that it may be possible to do without a separate notion of Case in syntax, thus supporting the findings of McFadden (2004). Case is the licensing mechanism for noun phrases in Principles and Parameters. The arguments presented in this dissertation suggest that there is no link between morphological case and this licensing mechanism. Here I also suggest that the proposed changes to the view of Case in the Minimalist Program may enable us to dispense with the notion of Case altogether. Noun phrases are licensed by functional categories, P, D and  $\phi$ , depending on their position, rather than by Case.

#### Case features

Case Theory in the Principles and Parameters framework makes frequent reference to nominative and accusative Case. Under the present proposal, it is assumed that Case is not an uninterpretable feature but rather spells out a projection of the noun. If Bittner and Hale (1996) are correct about nominative being absence of Case, then this leaves accusative as the only Case which has the status of an uninterpretable feature needing checking. Case features are no longer assumed to drive movement (Chomsky 2001). Case features are the only

features which are assumed to be uninterpretable in all contexts in which they appear, both on the noun and on the verb, as  $\phi$ -features are assumed to be interpretable on the noun at least. Where other types of features ( $\phi$ -features, etc.) are always interpretable on either the Probe or the Goal, the accusative Case feature remains the only one which is always uninterpretable. It plays no role at the LF interface.

If Case features are eliminated, this raises the question of the cause of case morphology. The proposal developed in this dissertation directly addresses this question, proposing an alternative source for case morphology, linking cases to members of the categories P, D and  $\phi$ . In Chapter 4 I argue that this more closely predicts when cases will be seen on the noun, since it removes the necessity for assuming abstract Case where there is no morphological case in a Case position, as with the English full noun objects, which lack morphological accusative case. The standard assumption of the existence of syntactic accusative Case is based on syntactic context (e.g. object position), and thus has a rather different distribution of accusative from morphological accusative, leaving the explanation of the distribution of morphological accusative to a different module. In itself this need not be a problem, but it reflects a disparity in the treatment of accusative as compared to other cases. Genitive, for example, is normally visibly present (at least in the form of *'s* or *of*) where it is analysed as being syntactically present in terms of Case features. The elimination of Case features under the current proposal is therefore advantageous in allowing greater consistency and greater predictive power in determining where a particular case form will be seen.

### Assignment/checking and interpretability

In Government and Binding Theory (Chomsky 1981; 1986), Case was analysed as something a verb or preposition *assigned* to a noun. Assignment was achieved under government, light *v* assigning accusative to the object and I (or later T) assigning nominative to the subject. In the Minimalist Program (Chomsky 1993; 1995) this was replaced with the notion of checking, but the link between particular cases and particular heads was maintained. The notion of this type of relation between the head and the complement or specifier with Case is problematic because certain adverbials also exhibit the same case behaviour as objects in some languages. For example, as shown in Chapter 3, Finnish object nouns have genitive when the sentence is positive and partitive when there is negation (20).

- (20) Finnish object case and negation
- a. Genitive object in positive sentence
 

Osta-n auto-n.  
buy-1SG car-GEN  
'I buy/will buy the car.'



- b. Partitive in negative sentence

**E-n** osta auto-**a**.  
 NEG-1SG buy car-PART  
 ‘I won’t buy the/any car.’

Measure adverbials optionally undergo the same alternation (21).

- (21) Finnish measure adverbial case and negation (Kiparsky 1998:20)

- a. Time adverb in genitive in positive sentence

Matti odott-i tunti-**n**.  
 Matti wait-PST.3SG hour-GEN  
 ‘Matti waited an hour.’

- b. Time adverb optionally in partitive in negative sentence

Matti **e-i** odotta-nut tunti-**a** / tunni-**n**.  
 Matti not-3SG wait-PST hour-PART / hour-GEN  
 ‘Matti didn’t wait an hour.’

It would thus be an oversimplification to say that the object receives its case from the verb, if one assumes that the morphological case seen is related to an underlying syntactic Case.

The link between particular cases and particular heads is further problematic because there is not a one-to-one correspondence of cases and heads. As observed, although accusative is common, many verbal objects have different cases, as in (22).

- (22) Hungarian objects with different cases

- a. Olvas-om a **könyv-et**.  
 read-1SG the book-ACC  
 ‘I am reading the book.’
- b. Hiszek **János-ban**.  
 believe.1SG János-INESS  
 ‘I believe in János.’
- c. Hiszek **János-nak**.  
 believe.1SG János-DAT  
 ‘I believe János.’

Under the present proposal, cases are related to interpretable values of different heads in the extended projection of the noun, rather than to a separate assigning head, an advantage when it comes to explaining non-assigned cases, or cases which appear in configurations not normally considered to be checking configurations.

### The Visibility Condition

The Visibility Condition (Chomsky 1986) (23) has been important in explaining the need for Case in language.

- (23) The Visibility Condition (Chomsky 1986)  
 A noun must be Case-marked in order to be visible for  $\theta$ -marking.

I have argued that case is only present where it is literally visible: that is, where it is morphologically distinct. I have further argued that such case is the morphological marker of a functional projection in the noun phrase. Thus there is no reason to postulate something like the Visibility Condition to explain the presence of the cases. Instead different cases are present for different reasons. For example the Finnish genitive is present as the spell-out of D, and accusative to distinguish the pronominal object from the subject.

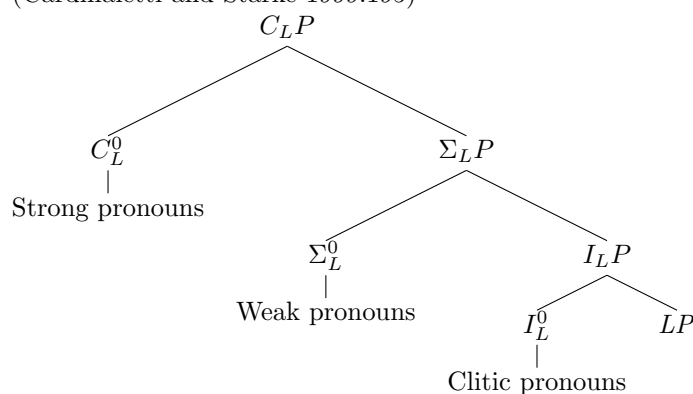
### Movement triggers

In early work in the Minimalist Program (Chomsky 1993; 1995), Case features were assumed to drive movement. Thus eliminating the notion of Case features might seem problematic in this respect. However, Chomsky (2001) states that Case features do not trigger movement. Movement is rather achieved by means of  $\phi$ -features and the EPP-feature, which demands that the specifier of a particular projection be filled.

Case is therefore no longer a motivation for movement, or thereby an explanation for word order phenomena. This is also a desirable result. In the past there have been proposals that rich case systems made freedom of word order possible whilst impoverished systems made word order rigid (Blake 1994:15). This was based on the contrast between languages like Hungarian and Latin with rich case systems and relatively flexible word order, as opposed to languages like English, with relatively little morphological case and relatively strict word order. More recent analyses of those languages such as Hungarian and Latin, previously termed non-configurational, show that the word order is in fact subject to restrictions related to information structure, now regarded by many researchers to be encoded in the syntax of the left periphery. See also McFadden (2004: Chapter 5) for more detailed argumentation on why the apparent broad correlation between rich morphological case systems and freedom of word order is not a causal relation.

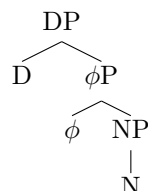
In the context of the present proposal the elimination of the Case-Movement connection means that nothing is lost with respect to Movement and word order when Case is also eliminated. However, some general tendencies in the distribution of different cases might be explained by the proposal concerning structural deficiency in Cardinaletti and Starke (1999). P-cases tend more often to be the cases of adverbials and idiosyncratically selected arguments, whereas D-cases appear more regularly on arguments. Cardinaletti and Starke (1999) make use of a notion of structural deficiency, claiming that the distribution of strong, weak and clitic pronouns can be explained on the basis of their internal structure according to the schema in (24), suggesting that level of structure directly determines restrictions on the movement of a pronoun.

- (24) Typology of structural deficiency of pronouns  
(Cardinaletti and Starke 1999:195)



L is the lexical head, I is the inflection category,  $\Sigma$  is a functional category where prosody-related features are located, and C is analogous with CP in the verbal domain. Déchaine and Wiltschko (2002) use a similar structure, rather more conventionally labelled, as in (25), to determine similar distributional properties of pronouns.

- (25) Structure according to Déchaine and Wiltschko (2002)



Although the proposals are related to pronouns, Déchaine and Wiltschko suggest that they should extend to full nouns as well. Bayer et al. (2001) propose that the different levels may correspond to different cases in German. They suggest that genitive and dative are KP and nominative and accusative are DP, though they still maintain that nominative and accusative are assigned by the verb, differing in this respect from my claim in Chapter 4. I suggest that the essence of these ideas could also apply here, the P-cases relating to adverbials because they are structurally complete, and the D-cases and  $\phi$ -cases relating to arguments because uninterpretable features link T and D (either uninterpretable D-features on T, as in the standard account, or uninterpretable T-features on D, as in Pesetsky and Torrego (2004)), causing DP to move to become a subject or direct object. Partitive and genitive cases in certain languages, such as Finnish and Russian, are also possible candidates for subjects and objects because, like nominative or accusative, they are DPs and  $\phi$ Ps. A noun phrase within a PP structure will appear unsuitable for feature checking in TP because T checks features with D and  $\phi$ . Thus the distinction between the D-system and the P-system emerges as crucial in determining the way in which a noun can be selected as an argument.

### 5.3.2 Case paradigms

Under the current assumptions, the traditional notion of a case paradigm, is shown to be a product of morphological constraints on the number of affixes a noun can host, existing only at the morphological level. Different cases arise from different syntactic structures. The stark difference between the nature of minimal pairs based on verbal and nominal inflectional paradigms supports this view. Where verbal person and number agreement paradigms result easily in neat minimal pairs, finding a minimal pair of sentences varying only case on the noun often involves a complete change of predicate, as illustrated in (26)-(29). (26) shows the verbal paradigm, illustrated with a minimal pair of sentences in (27).

(26) German verbal paradigm

| Form       | Gloss        |
|------------|--------------|
| ich kaufe  | I buy-1SG    |
| du kaufst  | you buy-2SG  |
| er kauft   | he buy-3SG   |
| wir kaufen | we buy-1PL   |
| ihr kauft  | you buy-2PL  |
| sie kaufen | they buy-3PL |

(27) Minimal pair based on verbal paradigm

- a. Ich kaufe ein Buch.  
I buy.1SG a book.  
'I buy a book.'
- b. Du kaufst ein Buch.  
you buy.2SG a book  
'You buy a book.'

(28) and (29) illustrate the same thing for the nominal paradigm, the point being that (29) contrasts with (27) and can hardly be considered as a minimal pair, since it requires a complete change of predicate.

(28) German nominal paradigms

| Form        | Gloss             |
|-------------|-------------------|
| der Mann    | the.NOM man       |
| den Mann    | the.ACC man       |
| dem Mann(e) | the.DAT man.(DAT) |
| des Mannes  | the.GEN man.GEN   |

(29) Pair based on nominal paradigm

- a. Ich helfe dem Mann(e).  
I help the.DAT man.(DAT)  
'I help the man.'

- b. Ich erinnere mich des Mannes.  
I remember 1SG.REFL the.GEN man.GEN  
'I remember the man.'

Under the account presented here, the difference is attached to the idea that the verbal paradigm involves agreement, whereas the cases are heads in the extended projection of the noun.

## 5.4 Discussion

The notion of case throws up various different associations in linguistic theory. Here I discuss a few of these, looking at the way in which the main claims of the dissertation fit in with them.

### 5.4.1 Relations between assigning heads and cases

The standard approach to Case in Principles and Parameters links specific cases to specific assigning heads. Nominative is connected with Tense, accusative with *v*, genitive with D, and oblique Case with P. As I argue in Chapter 4, accusative is not always found on the object of the verb, nor are all objects of verbs accusative. There is no direct correspondence between particular cases and particular configurations. There are, however, certain general trends in the distribution of cases. Accusative case, for example, is particularly prevalent on the objects of verbs, and relatively rare on the objects of other categories. A few European languages have accusative objects of prepositions, and certain nouns, at least in Turkish (Keskin 2005; 2006), appear to allow for objects in the accusative case, but these phenomena do not compare to the widespread use of accusative on verbal objects. Here I offer an explanation for the associations between particular cases and heads.

A possible explanation for this distribution of accusative relates to the idea that only verbs have true subjects, as argued in Reinhart and Reuland (1993:681). They claim that only verbs are intrinsically both semantic and syntactic predicates, and thus only verbs can be intrinsically reflexive. This fits in with the idea that accusative works as an obviative marker on the object. Since obviative markers distinguish the object from the subject, this would only be necessary for those arguments that stand in subject-object relationship.

The alternation between accusative and another case within PP in various European languages, mentioned in Chapter 4, also receives an explanation under this view. Examples (30)-(33) (adapted from Lestrade to appear) illustrate the phenomenon for German, Polish, Russian, and Latin, showing that the use of the preposition with the accusative is consistently the directional use, whereas the use with the alternate case (dative in German and Russian, locative in Polish, and ablative in Latin) is consistently the locative use.

- (30) German accusative alternation in PP
- a. Accusative case for direction  
 Julia läuft auf **die** Blumenwiese.  
 Julia walk.3SG on the.ACC flower.meadow  
 ‘Julia is entering the flower meadow.’
  - b. Dative case for location  
 Paul läuft auf **der** Blumenwiese.  
 Paul walk.3SG on the.DAT flower.meadow  
 ‘Paul is walking on the flower meadow.’
- (31) Polish accusative alternation in PP
- a. Accusative case for direction  
 Ide na poczte.  
 go.1SG to post.office.ACC  
 ‘I’m going to the post office.’
  - b. Locative case for location  
 Pracuje na poczcie.  
 work.1SG to post.office.LOC  
 ‘I work at the post office.’
- (32) Russian accusative alternation in PP
- a. Accusative case for direction  
 Ja xodil v magazin.  
 I went to shop.ACC  
 ‘I went to the shop.’
  - b. Dative case for location  
 Ja xodil v magazine.  
 I went to shop.DAT  
 ‘I was walking in the shop.’
- (33) Latin accusative alternation in PP
- a. Accusative case for direction  
 in aquam cadere  
 in water.ACC fallINF  
 ‘to fall in the water’
  - b. Ablative case for location  
 in urbe vivere  
 in city.ABL live.INF  
 ‘to live in the city’

Note that this is different from the partitive-genitive alternation in Finnish PPs mentioned in Chapter 3, which does not seem to have the same consistency of meaning pattern. Lestrade (to appear) argues that the pattern in (30)-(33) is related to the level of transitivity of the preposition, directionality in the prepositional domain corresponding to a high degree of transitivity in the verbal domain, and location to a low degree of transitivity. I take a slightly different

view. In directional examples the PPs are more like direct objects than those in the locative examples. I suggest that those examples in which the noun is accusative involve the incorporation of the preposition into the verb, so that the object noun comes within range of the subject and thus requires the accusative as an obviative marker. By contrast, in the locative examples the preposition does not incorporate, and the case seen is a P-case.<sup>3</sup>

Independent evidence for incorporation of directional Ps and its absence in locative Ps comes from Dutch, where there is overt incorporation of directional Ps as prefixes of the verb (Norbert Corver, p.c.). (34) and (35) show the difference between *in* ('in'/'into') when it is used as a directional and as a locative. In (34), the directional P can either be a postposition (a) or incorporate into the verb.<sup>4</sup>

- (34) Dutch directional P with incorporation
- a. Directional as postposition  
Ik geloof dat Jan **de boom in** is geklommen.  
I believe.1SG that Jan the tree in be.3SG climb.PST.PRT  
'I believe that Jan climbed into the tree.'
  - b. Directional incorporated  
Ik geloof dat Jan de boom is **in-geklommen**.  
I believe.1SG that Jan the tree be.3SG in-climb.PST.PRT  
'I believe that Jan climbed into the tree.'

By contrast, in (35), *in* is used as locative and must precede the noun (a). Here incorporation is ruled out (b).

- (35) Dutch locative P, no incorporation
- a. Ik geloof dat Jan **in de boom** heeft geklommen.  
I believe.1SG that Jan in the tree have.3SG climb.PST.PRT  
'I believe that Jan climbed (around) in the tree.'
  - b. \*Ik geloof dat Jan de boom heeft **in-geklommen**.  
I believe.1SG that Jan the tree have.3SG in-climb.PST.PRT  
'I believe that Jan climbed (around) in the tree.'

I therefore assume that incorporation of the directional P into V at LF makes the accusative necessary in German, whereas incorporation of the locative does not take place. Thus the locative object is distanced from the subject by the P-level, and there is no need for the obviative marker.

### 5.4.2 Ergative

In this dissertation all arguments have focused on nominative-accusative languages. A word about ergative-absolutive patterns is also in order. Although

<sup>3</sup>See also Zwarts (2005; 2006), and van Riemsdijk (2007) for different perspectives on this phenomenon, focusing on German.

<sup>4</sup>Note also that the directional and locative expressions require different auxiliaries in the past tense, the directional with *is* ('is') and the locative with *heeft* ('has').

these patterns are sometimes seen as completely in contrast to nominative-accusative patterns, recent research has shown that the same mechanisms can account for both (Bittner and Hale 1996, van de Visser 2006 among others). In languages with ergative case, it is typical to see a pattern with agentive verbs in which the agent subject has ergative case, and the non-agent subject and the patient have absolutive case, as illustrated in (36).

- (36) Yalarnnga ergative-absolutive pattern (from van de Visser 2006:9)
- a. Non-agent subject with absolutive
 

ŋa            waka-mu  
1SG.ABS fall-PST  
'I fell.'
  - b. Agent subject with ergative, patient with absolutive
 

ŋa-t̩-u    kupi    wala-mu.  
1SG-ERG fish-ABS kill-PST  
'I killed a fish.'

Absolutive case is generally equated with nominative case in the literature (Bittner and Hale 1996). Thus (36) may at first sight present a challenge to the proposal here, since the argument in the absolutive case is c-commanded by the subject in the ergative case, and there is no obviative marker (accusative morphology) present. I suggest that this might be explained with reference to the analysis of ergative case in Bittner and Hale (1996). Here it is argued that ergative case spells out KP. As I argue in Chapter 2, if some cases spell out PP, then those cases previously analysed as KP might in fact involve PP structures too. If this is true of ergative case, then it may be that the argument is too low in the structure to c-command the argument with absolutive case. Thus no obviative marker is necessary, and for reasons of economy the accusative structure is therefore not projected.

Alternatively, it may be that absolutive can be analysed, at least in some ergative languages, as DP, thus providing the necessary marker to distinguish the absolutive object. Evidence for this comes from Tongan (Polynesian), an ergative language with prepositions marking the different functions traditionally regarded as case functions (ergative, absolutive, benefactive, genitive, etc.). The Tongan data is interesting for two main reasons. Firstly, the absolutive preposition interacts with the article, showing that this apparent case marker can also have features relating to specificity, which is commonly assumed to be characteristic of the D-system. Secondly, the genitive (the preposition marking possession), seems to have a formal link with the absolutive, suggesting that adnominal cases more generally may relate to the DP layer in syntax.

Tongan has a prepositional absolutive marker. As illustrated in (37), the absolutive preposition must be omitted before a non-specific article, is optional before a specific article and a pronominal object, and is obligatory with proper names and other nouns with specific reference where no article is present.



- (37) Tongan absolutive (Broschart 1994:55)
- a. Unacceptable with a non-specific article  
 Na'e kata (\*'a) ha taha.  
 PST laugh (ABS) NONSPEC.ART one  
 'Somebody laughed.'
  - b. Generally present but not necessary with specific article  
 Na'e kata ('a) e sianá.  
 PST laugh (ABS) SPEC.ART man.DEF  
 'the man laughed'
  - c. Generally omitted but permissible with pronouns  
 Na'e kata ('a) ia.  
 PST laugh (ABS) 3SG  
 'He laughed.'
  - d. Obligatory with personal names  
 Na'e kata \*('a) Sione.  
 PST laugh (ABS) Sione  
 'Sione laughed.'
  - e. Obligatory with other nouns with clear contextual reference  
 Ke ma'a \*('a) peito!  
 SUBJ clean (ABS) kitchen  
 'Let the kitchen be clean!'

According to Bittner and Hale (1996), the appearance of morphological absolutive case in ergative languages (usually involving zero morphology) does not relate to a Case feature, nor to any additional structure. Nouns which appear with absolutive are simply bare DPs. Ergative morphology, on the other hand, is marked and spells out KP. The use of a preposition to mark absolutive is problematic for such an approach, but can be explained if one assumes that certain characteristics typically associated with the article are present in the absolutive preposition. That is to say, the absolutive preposition forms part of the determiner system, rather than the system of prepositions. Like the Finnish partitive, it spells out a head lower than the P-layer, explaining the determiner interaction, but higher than the determiner itself, explaining its ability to combine with the specific article. Thus in (37), the (a) example is explained by the idea that the absolutive contains specificity features incompatible with the non-specific article. Examples (b-c) are explained by its being specific, and thus compatible with the specific article and pronoun but redundant in their presence. The obligatory presence of the absolutive in (d-e) is due to the fact that there is nothing else available to mark specificity overtly. The contrast between the ergative and absolutive prepositions is illustrated by the fact that the ergative, unlike the absolutive, cannot be omitted, as in (38).

- (38) Omissible absolutive vs. obligatory ergative (Broschart 1994:44)

Na'e ma'u ('a) e            ongo fu'u 'anga 'e    ua 'i    Maasi l \*(('e)  
 PST get    ABS SPEC.ART DUAL CL shark LNK 2    LOC March l ERG  
 he            kau toutai mei Kolonga.  
 OBL.SPEC.ART PL fisher ABL Kolonga

'Fishermen from Kolonga caught two (big) sharks on 1st March.'

The behaviour of the Tongan absolutive is of further interest for the discussion of genitive case because the same preposition that appears as the absolutive marker is also the preposition used for the genitive of alienable possession.<sup>5</sup>

- (39) Identical forms of absolutive and genitive of alienable possession (Broschart 1994:16,96)

- a. Absolutive

Na'e 'alu 'a Sione ki kolo.  
 PST go ABS Sione DIR town

'Sione went into (the) town.'

- b. Genitive of alienable possession

ko            e            ka 'a            Sione  
 COP.ESS.PRES SPEC.ART car GEN.AL Sioné.DEF

'Sione's car'

Other Tongan prepositions, such as the benefactive, seem to incorporate the genitive. The genitive forms appear as part of the benefactive, with the same alienable/inalienable distinction as is visible in the genitive when it appears alone, suggesting that the genitive is selected by the benefactive. The genitive form does not appear to incorporate other prepositions. This suggests that the genitive is lower in the structure than P. Compare the examples of the benefactives in (40) with those of the genitive in (41).

- (40) Tongan benefactive incorporates genitive (Broschart 1994:50)

- a. Benefactive based on genitive of inalienable possession

Na'a nau    langa 'a            e            fale    mo'o    Siale.  
 PST 3PL.INIT build ABS.GEN SPEC.ART house BEN.INAL Siale

'They built a house for Siale.'

<sup>5</sup>The word *ko*, which appears in the nominal examples, is described in Broschart (1994:14) as a copular or present tense form but also as a type of essive preposition, comparable to English 'as.' Broschart later mentions that it is used with the citation form of the noun (Broschart 1994:35). An alternative translation of (39-b) would thus be as a full sentence, 'There is Sione's car.' For consistency, I have used the general gloss COP.ESS.PRES, but have kept Broschart's translation of the examples. The status of *ko*, and of the examples as noun phrases or clauses, should not bear on the discussion of the prepositions which are the focus of the examples I cite.

- b. Benefactive based on genitive of alienable possession  
 Na'a nau tanaki 'a e pa'anga **ma'a** Siale.  
 PST 3PL.INIT collect ABS.GEN SPEC.ART money BEN.AL Siale  
 'They collected some money for Siale.'
- (41) Tongan genitive prepositions (Broschart 1994:96)
- a. Genitive of inalienable possession  
 ko e 'ulu 'o Sioné  
 COP.ESS.PRES SPEC.ART head GEN.INAL Sione.DEF  
 'Sione's head'
- b. Genitive of alienable possession  
 ko e ka 'a Sioné  
 COP.ESS.PRES SPEC.ART car GEN.AL Sione.DEF  
 'Sione's car'

Broschart (1994:122–123) further claims that there is evidence that the diachronic development of the Tongan genitive prepositions was closely connected with that of the article.

Thus the Tongan data is suggestive of the transferability of the current proposal to ergative languages, though further research would be necessary in order to establish this more widely.

### 5.4.3 Case hierarchies

The proposal also has consequences for the implicational hierarchies of cases, sometimes mentioned in the typological literature and in work on  $\theta$ -roles. Blake (1994) sketches a rough implicational hierarchy along the lines of (42). Hierarchies such as this are argued to predict the specific cases a language will have, given the number of cases in its nominal paradigm.

- (42) Implicational hierarchy of cases (Blake 1994:157)  
 nominative > accusative/ergative > genitive > dative > locative >  
 ablative/instrumental > others

A language which has locative case, for example, will also have all the cases preceding it on the hierarchy (nominative, accusative or ergative, genitive and dative).

Setting aside for now the problem of the cross-linguistic comparability of specific case terms, according to the view presented here, it is necessary to make certain adjustments to the interpretation of such hierarchies. Instead of simply predicting the range of cases a language will have, the hierarchy predicts the likelihood of spell-out of a case in analytic (adpositional) or synthetic (affixal) form. For example, if a language spells out dative as an affix, then those items preceding it on the hierarchy will also have inflectional realisations, whereas if the dative is spelt out as an adposition, then those items following it on the hierarchy will also have adpositional realisations (see also van Riemsdijk 1981:appendix b, for a similar claim of inverse likelihood of a function being carried out by an adposition or a case). I assume that nominative, accusative

and genitive must be removed from this list, on the grounds that they do not belong to the category P, as argued in Chapter 3 for genitive and in Chapter 4 for nominative and accusative, whereas the other cases rightly belong in the list, belonging to the category P, as argued in Chapter 2.

These adjustments, appear to improve the accuracy of the hierarchy. Clearly the present position of genitive in (42) could not be correct, since Hungarian, for example, has dative, locative, ablative/instrumental and many others, but no genitive. Moving the genitive down the hierarchy does not improve matters, because German and Greek have nominative, accusative, genitive, dative and no others. If the genitive is analysed as belonging to a different category (D instead of P), then it no longer has any place on such a hierarchy. Thus the generalisations of (42), such as the greater likelihood that dative will be spelt out on the noun and not as a separate word, as compared with locative or ablative, can be maintained without running into such contradictions.

## 5.5 Conclusion

I have argued for a change in the view of case in syntax and morphology, dividing the different cases from rich case paradigms amongst the heads in the extended projection of the noun. At face value the proposal may seem radically different from past approaches, which variably make use of Case features, and KP and PP heads to account for these cases. However, the proposal does not introduce anything new in terms of theoretical apparatus, making use of mechanisms already proposed and independently needed for analysis of the noun phrase (extended projection in the sense of Grimshaw 2000 and decomposition in the sense of Cardinaletti and Starke 1999 and Déchaine and Wiltschko 2002) and in fact reducing the theory by removing the need for theoretical primitives specific to case, and enforcing greater consistency and conceptual uniformity in the treatment of related phenomena. In a broader perspective, the analysis presented provides a typology of a range of nominal inflections often ignored in generative literature, where the focus is on structural nominative and accusative Case, rather than on the wide variety of case forms in morphologically rich languages.

A few problems noted in the course of the analysis remain unsolved. Certain cases and adpositions resist clear-cut analysis as one or other head in the nominal extended projection, exhibiting behaviour expected of two different heads, examples including English *of* which is found in Chapter 3 to be ambiguous between P and D, and dative and genitive in German, which raise similar questions. These problems reflect the difficulty of accommodating items in the process of diachronic change in a rigidly synchronic framework. A further problem noted in Chapter 3 was the way in which case interacts with aspect, which is not fully explained by the present breakdown of paradigms. These issues remain for future research.

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## Abbreviations

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The following abbreviations are used in the interlinear glosses of examples.

|         |                  |         |                      |
|---------|------------------|---------|----------------------|
| 1       | first person     | INAL    | inalienable          |
| 2       | second person    | INAN    | inanimate            |
| 3       | third person     | INDEF   | indefinite           |
| ABL     | ablative case    | IND.OBJ | indirect object      |
| ABS     | absolute case    | INESS   | inessive case        |
| ACC     | accusative case  | INF     | infinitive           |
| ADELAT  | adelative case   | INSTR   | instrumental         |
| ADESS   | adessive case    | M       | masculine            |
| ADV     | adverb           | N       | neuter               |
| AL      | alienable        | NOM     | nominative case      |
| ALL     | allative case    | NONSPEC | nonspecific          |
| ART     | article          | OBL     | oblique marker       |
| AUG     | augment          | OBV     | obviative            |
| AUX     | auxiliary        | PART    | partitive case       |
| BEN     | benefactive      | PL      | plural               |
| CAUS    | causal case      | POSTESS | postessive case      |
| COMP    | comparative      | PRES    | present              |
| COP     | copula           | PRF     | perfect              |
| DAT     | dative case      | PROX    | proximate            |
| DEF     | definite         | PRT     | participle           |
| DEL     | delative case    | PST     | past                 |
| DIREC   | directional case | PV      | preverb              |
| DIR.OBJ | direct object    | SG      | singular             |
| ELAT    | elative case     | SPEC    | specific             |
| EPV     | epenthetic vowel | SUBESS  | subessive case       |
| ERG     | ergative case    | SUBJ    | subjunctive          |
| ESS     | essive case      | SUBL    | sublative case       |
| F       | feminine         | SUP     | superessive case     |
| GEN     | genitive case    | TEMP    | temporal case        |
| ILL     | illative case    | TERM    | terminative case     |
| IMP     | imperative       | TRANS   | translative case     |
| IMPF    | imperfect        | WH      | interrogative marker |





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## Samenvatting in het Nederlands

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Deze dissertatie gaat over het probleem van de relatie tussen syntactische structuren en de volledige inventaris van morfologische naamvallen in paradigma's als (1).

- (1) Hongaars nominaal naamvalsparadigma (onvolledig)

| Case       | 'uur'  | Description/translation |
|------------|--------|-------------------------|
| Nominatief | óra    | subject, citatievorm    |
| Accusatief | órát   | object                  |
| Datief     | órának | doel/begunstigde        |
| Illatief   | órába  | naar binnen             |
| Inessief   | órában | binnen                  |
| Elatief    | órából | naar buiten             |

In informele zin is naamval te beschrijven als een verzameling vormelijke variaties van het nomen of zijn verwante categorieën (determinator, pronomen of adjectief) die gevoelig is voor de syntactische context, in het bijzonder de argumentstructuur, of semantische interpretatie, en die in het algemeen onafhankelijk is van andere nominale kenmerken zoals getal en geslacht. Dit wordt geïllustreerd voor enkele gevallen in (2).

- (2) a. El-indul-t                      a **vonat**.  
PV-vertrek-PST.3SG de trein.NOM  
'De trein vertrok.'
- b. Fel-olvas-t-am    a level-ek-et    az ap-ám-**nak**.  
PV-lees-PST-1SG de brief-PL-ACC de vader-1SG-DAT  
'Ik las mijn vader de brieven voor.'
- c. Három könyv van    a tásk-ám-**ban**.  
drie    boek    is.3SG de tas-1SG-INESS  
'Er zitten drie boeken in mijn tas.'

De zinnen in (2) maken duidelijk dat naamval een rol speelt in het markeren van de afhankelijkheidsrelatie tussen predicat en nomen, waarbij soms ook de verschillende argumenten van elkaar worden onderscheiden.

De centrale vraag in deze dissertatie betreft het verband tussen naamvallen en adposities in contexten waarin ze overlappen, en de wijze waarop het erkennen van dit verband kan worden geïntegreerd in een consistente benadering van

naamvallen, zodat de volledige inventaris van naamvallen in paradigma's als (1) kan worden verklaard. De analyse wordt gevat in het Principes en Parameters-raamwerk (Chomsky 1981; 1986; 1993; 1995), waarbij de relatie tussen morfologie en syntaxis wordt benaderd langs de lijnen van de Distributed Morphology (Halle and Marantz 1993).

Vanuit cross-linguïstisch perspectief overlapt het gebruik van veel naamvallen met het gebruik van adposities. Zowel naamvallen als adposities komen in vier syntactische hoofdcontexten voor. De eerste, soms aangeduid als semantisch of 'perifeer' met betrekking tot naamval, wordt gevonden in contexten waarin de gebruikte naamval of adpositie de status van predicaat lijkt te hebben, een adverbiale frase vormend die onafhankelijk is van het hoofdpredicaat in de zin. Voorbeeld (3) illustreert dit voor het Hongaars, waar verschillende naamvallen worden gebruikt in een context waar het Engels en het Nederlands preposities hebben.

- (3) Géza olvas **a kert-ben**.  
 Géza lees.3SG de tuin-INESS  
 'Géza leest **in de tuin**.'

In de tweede context van belang kunnen twee gelijke naamvallen voorkomen, weliswaar met verschillende semantische bijdragen, maar hier is het het werkwoord dat de naamvallen selecteert, als in (4).

- (4) **Kéte**meletes **ház-ban** lak-om.  
 met.twee.verdiepingen huis-INESS woon-1SG  
 'Ik woon in een huis met twee verdiepingen.'

In de derde context lijkt het predicaat dezelfde naamvallen te selecteren zonder dat dit een voorspelbare semantische bijdrage levert aan de interpretatie. In plaats daarvan worden ze op idiosyncratische wijze geselecteerd door een bepaald lexicaal hoofd. Hieronder vallen voorbeelden zoals (5).

- (5) Hisz-ek **János-ban**.  
 geloof-1SG János-INESS  
 'Ik geloof in János.'

De vierde context wordt vaak beschouwd als het basale grammaticale gebruik van naamval, en wordt eerder met naamval dan met adposities geassocieerd. Er zijn echter talen waarin al deze verschillen met adposities worden gemarkeerd. Een voorbeeld hiervan is het Japans, een taal die adposities gebruikt, naast het Hongaars, dat dezelfde distincties maakt met naamvallen.

- (6) a. Sensei **ga** Tasaku ni hon **o** yat-ta.  
 docent NOM Tasaku IND.OBJ boek DIR.OBJ geef-PST  
 'De docent gaf Tasaku een boek.' (Japans)  
 b. **Dénes** könyv-**et** olvas a nappali-ban.  
 Dénes.NOM boek-ACC lees.3SG de woonkamer-INESS  
 'Denes leest een boek in de woonkamer.' (Hongaars)

Zo vertonen naamvallen en adposities dus overlap in alle belangrijke gebieden van de distributie van morfologische naamvallen.

Naamval kan ook covariëren met andere factoren zoals bezieldeheid, definitetheid, of type nomen (pronomen versus nomen), wat bekend staat als differential case marking (Aissen 1997; 2003b;a). In (7) zien we een voorbeeld uit het Hebreeuws, waarin objecten slechts naamval dragen als ze definitief zijn.

- (7) a. Ha-seret her'a 'et-ha-milxama.  
de-film toonde ACC-de-oorlog  
'De film toonde de oorlog.'
- b. Ha-seret her'a (\*'et)-milxama.  
de-film toonde ACC-oorlog  
'De film toonde een oorlog.'

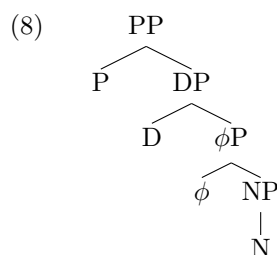
Het type alternantie in (7) vormt de sleutel voor de analyse die ik ontwikkel voor de grammaticale naamvallen (diegene met een minder duidelijke semantische inhoud).

Ik ga uit van de hypothese dat tenminste sommige naamvallen en adposities syntactisch identiek zijn, zodat ze slechts op post-syntactisch morfologisch niveau verschillen. De belangrijkste observatie voorkomend uit het daaropvolgende onderzoek is dat er verscheidene syntactische onderverdelingen kunnen worden gemaakt, zowel binnen naamvallen (vormelijke variaties in het nomen) als binnen adposities (losse woorden grenzend aan het nomen). Deze onderverdelingen relateren hen aan de categorieën P, D en  $\phi$  (een projectie voor getals- en persoonskenmerken). Tegelijkertijd vervullen sommige naamvallen en sommige adposities dezelfde functies: dezelfde verzameling distincties kan zowel door naamvallen als door adposities worden gemaakt.

De centrale stelling van deze dissertatie is dat de variatie aan morfologische verschijnselen die men 'naamval' noemt, verwant is aan de syntactische categorieën P (adposities), D (determinatoren) en  $\phi$ . Dit impliceert dat een notie van een syntactische categorie voor naamval, teneinde de typen morfologische variatie geïllustreerd in (1) te kunnen verklaren, onnodig is. Diezelfde syntactische categorieën kunnen ook als afzonderlijke woorden worden uitgespeld in de nominale frase. Vanuit syntactisch oogpunt is naamval een epifenomeen dat verbonden is met verschillende afzonderlijke nominale categorieën. In de morfologie wordt naamval herkenbaar doordat het zich onderscheidt van adposities in veel talen, waarbij naamval deel uitmaakt van een ander woord en adposities losstaan als aparte woorden, zoals geïdentificeerd op basis van taalspecifieke criteria voor woordschap. Ondersteunende evidentie voor deze stelling komt uit meerdere verschillende talen. De hoofdanalyse focust op gedetailleerde studies van het Hongaars en het Fins en de manier waarop deze talen zich verhouden ten opzichte van het Engels.

De overlap tussen naamval en adposities, zoals geobserveerd in (3)-(6), noch het bereik en de variabiliteit van de naamvallen in (1), wordt op enige wijze voorspeld door de Principes en Parameters-benadering. De bestaande mogelijke oplossingen voor zo'n overlap zijn niet geïntegreerd in de standaard kijk op naamval. Deze dissertatie vult dit hiaat op door een geïntegreerde benadering voor te stellen. De overlap tussen naamvallen en adposities wordt verklaard

vanuit het feit dat ze in de syntaxis hetzelfde scala aan categorieën uitspellen (P, D en  $\phi$ ), waarbij ze deel uitmaken van de uitgebreide projectie van het nomen. Het verschil komt tot stand op het niveau van de morfologie. De gedachte dat zowel semantische naamvallen als adposities P uitspellen is niet nieuw, maar kan minder goed worden gehandhaafd als het gaat om grammaticale naamvallen. Ik stel voor om de laatste te behandelen als exponenten van de lagere uitgebreide projecties van het nomen, D en  $\phi$ . Naamvallen worden dus ontleed in verschillende syntactische structuren. Verschillende typen naamval spellen verschillende functionele projecties van het nomen uit, en wel volgens de structuur in (8).



Veel naamvallen die ruimtelijke relaties of semantische rollen uitdrukken, spellen het P-hoofd uit. Naamvallen die een rol spelen bij Differential Object Marking van het type geïllustreerd in (7) hebben meestal een link met definiteid of specificiteit. Dit zijn kenmerken die typisch geassocieerd worden met determinatoren, en soms met  $\phi$ -kenmerken. Om die reden pleit ik ervoor om deze naamvallen te associëren met de D- en  $\phi$ -projecties. Meer bepaald worden naamvallen zoals genitief en partitief met de D-laag geassocieerd en accusatief met D en met  $\phi$ , afhankelijk van de taal. Nominatief krijgt geen speciale status in de syntaxis: een nominale frase in de nominatief wordt geanalyseerd als DP als er een determinator aanwezig is, en als NP als er geen determinator is en er verder geen andere onafhankelijke reden is om te geloven in de aanwezigheid van een DP-projectie in de context in kwestie. De conclusie is dat er op het niveau van de syntaxis niets speciaals is aan naamvallen dat hen doet verschillen van hun analytische tegenhangers, adposities en determinatoren.

In hun oppervlaktevorm verschillen naamvallen wel degelijk van adposities en determinatoren: ze hechten zich direct aan het nomen, in plaats van onafhankelijke woorden te vormen. Ik beargumenteer dat dit gerelateerd is aan de fonologische inhoud van de lexicaal items, waarbij fonologisch kleinere elementen eerder fonologisch afhankelijk zullen zijn en daardoor uitgespeld zullen worden als naamval. Zodoende wordt de oppervlaktevorm van P, D en  $\phi$  als onafhankelijke woorden of als morfologische veranderingen op het nomen bepaald op het moment van lexicaal insertie, in de fonologische component. De syntaxis is onverschillig met betrekking tot de status van een item als analytische markeerder, een adpositie of lidwoord, of synthetische markeerder, doorgaans gezien als naamval.

De gepresenteerde analyses richten zich voornamelijk op het Hongaars en het Fins omwille van een gedetailleerde argumentatie en exemplificatie van de

relatie tussen syntaxis en morfologie die zou resulteren in paradigma's van syntactisch ongelijke objecten (1). Hoofdstuk 1 introduceert de leidende gedachten en het theoretische apparaat. Hoofdstuk 2 toont de link tussen naamvallen en adposities geanalyseerd als het uitspellen van de categorie P in het Hongaars. Hoofdstuk 3 laat zien dat er een link kan worden gelegd tussen de Finse partitief en genitief en de categorie D. Hoofdstuk 4 behandelt de nominatief en accusatief in beide talen. Elk hoofdstuk bevat een verdere discussie van de cross-linguïstische toepasbaarheid van de analyses. Hoofdstuk 5 bespreekt de bredere consequenties van het voorstel voor Case Theory.



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## Curriculum Vitae

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Anna Asbury was born on 7th June 1980 in Oxford, UK. She completed her secondary school education at the School of St Helen and St Katharine in Abingdon, Oxfordshire. After a gap year volunteering in Germany and working at Oxford University Press, she went to Cambridge to study Classics and Linguistics, graduating in 2002. In 2003 she completed the MPhil in Linguistics at Cambridge. She was employed as a PhD student at the Utrecht Institute of Linguistics from 2004 until 2007. This dissertation is the result of her research carried out here.