



Faculteit Letteren & Wijsbegeerte

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Splitting Objects

A Nanosyntactic account of direct object marking

Proefschrift voorgelegd tot het behalen van de graad van
Doctor in de Taalkunde

2013

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Co-promotor

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A Mamie Jo et Mamie Lène

Acknowledgements

These four years have made me into a different person, a wiser one I hope. I have of course learned a lot about grammar, about languages and about Language. But there is more. I have learned to deal with my insecurities, I have learned to define my priorities, I have learned that good work is inseparable from good fun. I have also learned to think more by myself instead of studying what others have said in great details. This made me experience a couple of « Aha »-moments. They are worth all the gold in the world.

Many people accompanied me on this tough learning journey. Some walked the whole way with me, others a small part of it. Some helped me jump over a puddle, others carried me over a mountain. I wish to thank them all here.

I won't start with people, though. I am very grateful to Flanders and to the university of Ghent for providing me with the financial and material support which enabled me to dedicate my entire working time to my PhD. My research was funded by the FWO project *Comparative syntax: Layers of structure and the cartography project* (FWO 2009-Odyseus grant-G091409). The city of Ghent should also be thanked for being such a lively and open-minded place where it's good to live, work and relax.

Efficient, quality work passes too often unnoticed. I would thus like to say how I greatly appreciated the competence and the willingness to help of staff members of the university of Ghent : Kristof Baten, Chris Bulcaen, Gitte Callaert, Annemie Demol, Frederic Lamsens, Claudine Muylle and Tom Parleviet. I also thank Sarah Haas for organizing two writing retreats which helped me get into the writing process.

Turning to linguists, I first thank Liliane Haegeman, whose pedagogical talents triggered my interest in syntax a good seven years ago. I am also very grateful to her for offering me the invaluable chance to write a Ph.D. and for believing, much more than I did, that I could bring this project to a good end.

Jeroen van Craenenbroeck has been a fantastic mentor. No doubt this thesis would not have come through without his guidance and support. I want to thank him for being such a dedicated supervisor, for always forcing me to « raise the level of precision » and for providing me with a model of an excellent linguist.

The work to follow also greatly benefited from discussions with Michal Starke and Pavel Caha. I wish to thank them in particular for developing such an inspiring and exciting way of looking at language.

One piece of advice I got when I embarked on the Ph.D. student route was « read, read as much as you can ». I followed that piece of advice and became almost addicted to

reading. This became even worse when I opened my first grammar book of Hungarian. Articles and books can however not replace the treasure a native speaker holds. I would not have been able to write this work without the explanations, clarifications and judgments of my Hungarian informants. I am particularly indebted to Adrienn Jánosi and Barbara Egedi for their patience and for the time they spent on providing me with detailed answers to my questions. Many thanks, also, to Eva Dékány, Ildiko Botlik and Anikó Lipták. Several native speakers and/or specialists of other languages were so kind as to share with me some of their precious knowledge: Metin Bagriacik, Hicham El Sghiar, Leonid Kulikov, Radek Šimík, Marleen Van Peteghem, Saartje Verbeke and Reiko Vermeulen.

During these four years, I shared the Muinkkaai office with fantastic people. My GIST colleagues quickly became my dearest friends. I'll be forever thankful to them for respecting me and appreciating me for what I am. I loved talking with them about linguistics, talking about our doubts and fears, and talking non-sense too sometimes. I greatly benefited from the experience of our post-docs Anne, Lobke and Reiko. They repeatedly helped me overcome the imposter-syndrome and taught me some important knowledge I was lacking. I thank Will for being so sweet and for colouring our black, grey and red office with his musical talents, his puns and his Phases. Finally, thanks, from the bottom of my heart, to Karen and Rachel for being such good and patient ears. Without you, girls, I would have felt much more lonely... and I would probably have missed many trains and planes!

For the very pleasant conversations during the coffee breaks and their supportive words, I am also grateful to my other office-mates Liisa Buelens, Tine Defour, Ulrike D'Hondt, Tijs D'Hulster, Steven Doms, Kimberley Mouvet, Peter Muntigl, Aleksandra Vercauteren, Filip Verroens and Evita Willaert. Special thanks to Ellen Simon for her kindness and her never fading encouragements.

I thank Eric Lander for our enriching discussions. His passion for linguistics is even greater than mine. Talking with him, I often had the impression that time had stopped running.

I am very grateful to the members of CRISP for welcoming me so warmly to their conferences, reading-groups and lecture series, which gave me the occasion to broaden my linguistic knowledge and to meet many interesting scholars. Adrienn, Dany, Guido, Jeroen, Koen, Marijke and Tanja, linguistics is even more fun in your company. Thanks also for your sincere kindness and your encouragements.

Believing that a healthy spirit lives in a healthy body, I spent a significant part of my free time doing sports. There, I regularly met Hicham El Sghiar, whose optimism and encouraging words often helped me to get out of a grumpy mood and to start again with a more positive attitude. I also thank Jeroen, Edith, Dory, Peter and Marcelle. Chatting with

them during the breaks made me look forward to the next training (who would have believed this to ever be possible!).

I am grateful to my parents for their endless love and for having supported me in spite of their doubts about the rationality of some of my choices.

Thanks to Marie-Hélène, Leif-Rune, Beate, Fritz, Steffi, Renate and Regina for often enquiring how I was doing during the last years, for their postcards, emails, pictures, fresh vegetables and cakes.

As always, I've kept the best to the end: Michael, it is thanks to your love and support that I have been in a state to embark on this wonderful adventure. Thank you so much for helping me become a more balanced person during the last 12 years.

List of Abbreviations

ABL	ablative
ACC	accusative
ADESS	adessive
ALL	allative
ASP	aspect
CDN	conditional
COMIT	comitative
DAT	dative
DEF	definiteness
DELAT	delative
ELAT	elative
ESS	essive
FEM	feminine
FREQ	frequentative
GEN	genitive
ILL	illative
INDEF	indefinite
INESS	inessive
INF	infinitive
INS	instrumental
K	case
LOC	locative
MASC	masculine
NEG	negation
NOM	nominative
PAST	past
PL	plural
PRES	present
SG	singular
SUBJ	subjunctive
SUBL	sublative
SUPERESS	superessive

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1 Introduction

1.1 Empirical domain and theoretical scope

This dissertation provides a novel perspective on direct object marking. The theory is developed in the Nanosyntactic framework on the basis of Hungarian data. It is then extended to lay the foundations for a nanosyntactic analysis of direct object marking cross-linguistically.

The empirical core of the dissertation is that in Hungarian two different sets of personal endings are found on finite verbs: the so-called ‘indefinite’ and ‘definite’ conjugations. Though all endings encode the person and number features of the subject, the endings of the indefinite conjugation only appear when the finite verb takes no direct object or an indefinite one. On the contrary, the endings of the definite conjugation are used when a finite verb takes a definite direct object. This is illustrated in (1) and (2). In (1a), the direct object is indefinite and the suffix *-ok* spelling out the first person singular of the subject appears on the finite verb. In (1b), the direct object is definite and the first person singular of the subject is encoded on the finite verb by the suffix *-om*. In examples (2a) and (2b) the phi-features of the subject are encoded by the same ending *-tek*. The difference lies in the occurrence of an additional morpheme, *-i*, between the verbal stem and the subject ending. This marker only appears when the direct object is definite.¹

¹ The Hungarian examples that were not taken from the literature were kindly provided to me or corrected by Hungarian native speakers: Adrienn Jánosi, Barbara Egedi, Éva Dékány and Ildiko Botlik. Obviously, any errors of fact or interpretation are my own responsibility.

- (1) a. (Én) lát-**ok** egy lány-t.
 I see-1.SG.INDEF a girl-ACC
 'I see a girl.'
- b. (Én) lát-**om** a lány-t.
 I see-1.SG.DEF the girl-ACC
 'I see the girl.'
- (2) a. (Ti) ismer-**tek** egy lány-t.
 you_{PL} know-2.PL a girl-ACC
 'You know a girl.'
- b. (Ti) ismer-**i-tek** a lány-t.
 you_{PL} know-DEF-2.PL the girl-ACC
 'You know the girl.'

The two central research questions of this dissertation are the following ones:

- (3) How is the (in)definiteness of the direct object related to the existence of the two conjugation paradigms in Hungarian?
- (4) Does this pattern in Hungarian relate to other phenomena involving direct objects crosslinguistically and if so, how?

Many answers to the first question have been formulated in the generative literature. Most, if not all, assume that the definiteness of the direct object is encoded on the finite verb just like the phi-features of the subject are, i.e. via a specifier-head agreement or feature checking mechanism. The theory developed in this dissertation offers a different answer. This answer forms the main claim of the dissertation and is given in (5).

- (5) The marking of object definiteness in Hungarian is the spellout on finite verbs of a structural layer which is base-generated within the direct object.

This claim starts from the following two empirical facts. First, when a verb takes a 3rd person personal pronoun as its direct object, the definite conjugation is used (6a, 7a). However, when the direct object is a 1st or 2nd person pronoun, it is an ending of the indefinite conjugation which arises on the finite verb (6b, c, 7b, c).

- (6) a. (Én) lát-**om** őt / őket.
 I see-1.SG.DEF him/her / them
 ‘I see him/her/them.’
 b. Mi lát-unk téged / titeket.
 we see-1.PL.INDEF you_{SG} / you_{PL}
 ‘We see you_{SG} / you_{PL}.’
 c. (Ti) lát-tok engem / minket.
 you_{PL} see-2.PL.INDEF me us
 ‘You see me / us.’
- (7) a. (Ti) ismer-i-**tek** őt / őket.
 you_{PL} know-DEF-2.PL him/her / them
 ‘You know him/her.’
 b. Mi ismer-ünk téged / titeket.
 we know-1PL.INDEF you_{SG} / you_{PL}
 ‘We know you_{SG} / you_{PL}.’
 c. (Ti) ismer-tek engem / minket.
 you_{PL} know-2.PL.INDEF me / us
 ‘You know me/us.’

The second observation is that, while 1st and 2nd person personal pronouns contain two sets of phi-features, their 3rd person counterparts only contain one. Descriptive glosses are provided in (8).

- (8) a. en-g-em ; té-g-ed ; mi-nk-et ; ti-tek-et
 1.SG-g-1.SG; 2.SG-g-2.SG; 1.PL-1.PL-ACC ; 2.PL-2.PL-ACC
 ‘me’ ‘you_{SG}’ ‘us’ ‘you_{PL}’
 b. ő-t ; ő-k-et
 3.SG-ACC ; 3.SG-PL-ACC

Put together these facts show that when a direct object pronoun contains two sets of phi-features, only the features of the subject are encoded on the finite verb. When a pronoun contains only one set of phi-features, its presence is encoded on the finite verb. Simplifying somewhat, I argue that 3rd person direct objects, just like their 1st and 2nd counterparts, are base-generated with two sets of phi-features. However, one of these two sets subextracts and is then spelled out on the finite verb, either independently of the subject marker, such as in (7a), or as a part of a portmanteau morpheme, as in (6a).

Then, the claim in (5) is shown to also hold for the pattern of direct object marking with direct object full DPs presented in (1) and (2). I first argue that Hungarian definite direct objects are structurally bigger than their indefinite counterparts. This hypothesis is based on the fact that, in many languages, definite direct objects are morphologically more marked than indefinite ones. An example of this phenomenon known as ‘Differential Object Marking’ is provided in (9). In (9a), the direct object is definite and is suffixed by the marker *-tī*. In (9b), the direct object is indefinite and appears bare.

- (9) a. *hin kitap-tī uqī-yhīn.*
 you book-ACC’ read-2.SG
 ‘You are reading the book.’
 b. *hin kitap uqī-yhīn.*
 you book read-2.SG
 ‘You are reading a/some book.’

Bashkir (Turkic); Bossong (1991: 161, his (26))

Building on the analysis for pronouns, I propose that in Hungarian, the additional structural part of definite direct objects raises to the vicinity of the finite verb. This leads to the occurrence of an ending of the definite conjugation on the finite verb. In other words, I argue that the definite conjugation in Hungarian is an instance of Differential Object Marking. I provide a formalization of this phenomenon in nanosyntactic terms. This is because the nanosyntactic framework provides us with the necessary tools to investigate grammar at the submorphemic level and thus to identify precisely the origin and the nature of differential object markers such as Hungarian *-i-* in (2b), (7a) and Bashkir *-tī* in (9a).

In what follows, I summarize the content of the six chapters which compose this dissertation.

1.2 Outline of the dissertation

In Chapter 2, I present the Nanosyntactic framework. The birth and development of Nanosyntax are recent and thus still little known in the realm of theoretical syntax. This chapter hence provides the reader with the theoretical background that is necessary for the understanding of the subsequent chapters.

In Chapter 3, I provide a detailed empirical description of direct object marking in Hungarian. I argue that the appearance of a direct object marker on a finite verb is linked

to the semantics of the direct object. In particular, I show that not only definite but also some specific indefinite direct objects co-occur with a direct object marker on the finite verb.

In Chapters 4 and 5, I develop an account of the occurrence of the definite conjugation in the presence of pronominal direct objects. In Chapter 4, I examine the morphological makeup of Hungarian personal pronouns. I observe that all personal pronouns are composed of two sets of phi-features, except 3rd person direct object pronouns. I argue that the morpheme missing in these pronouns is identical to the direct object marker which is spelled out independently from the subject marker in some endings of the definite conjugation. In Chapter 5, I examine the underlying structure of Hungarian personal pronouns and provide a nanosyntactic decomposition of the morphemes that compose them. Once this precise map of the pronouns is in place, I identify a layer of syntactic structure which is present in all pronouns except in 3rd person direct object pronouns. I argue that this layer is attracted to the finite verb and that this results in the appearance of the direct object marker on the finite verb.

In Hungarian, the makeup of personal pronouns is similar to that of possessive DPs. The nanosyntactic decomposition of personal pronouns will thus also lead to the formulation of proposals with regard to some of the properties of possessive DPs.

In Chapter 6, I turn to the patterns of direct object marking with full DPs. I observe that the morphological split between definite and some indefinite direct objects on the one side and other indefinites on the other side is similar to that leading to differential object marking in many languages. I propose that the only difference between Hungarian and other differential object marking languages is that the differential object marker is attracted to a position near the finite verb in Hungarian. I suggest that this movement is caused by D-linking requirements, a phenomenon which is known to play a crucial role in the scrambling of direct objects in Germanic languages.

Chapter 7 summarizes the dissertation and presents avenues for further research.

2 Theoretical background

This dissertation is couched in the Nanosyntactic framework, whose origin lies in Starke (2005).¹ As a natural development of the Cartographic framework (Cinque 1999; Rizzi 1997, 2004; Cinque & Rizzi 2008), whose goal is to identify the components of the clausal architecture and their hierarchical order, Nanosyntax studies the fine-grained structure of lexical items. The aim of this chapter is to equip the reader with the theoretical starting-blocks of Nanosyntax which I use in the present work. I will also present Caha (2009)'s nanosyntactic perspective on case. Readers familiar with the framework and with Caha (2009)'s work may wish to directly proceed to Chapter 3.

The chapter is divided into three sections. I start by introducing the founding principles of Nanosyntax, providing an illustration for each theoretical concept. Then, I present the results of Caha (2009) which I will then take for granted in the remainder of the thesis and on which I will base my own analyses in the following chapters. The last section briefly concludes.

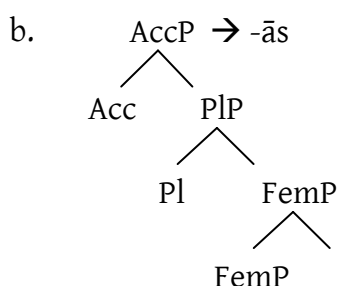
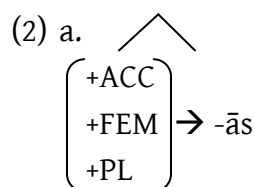
¹ Next to the references cited in the main text of this chapter, other works are grounded in this framework and contributed to its further development: Fábregas (2009), Franco (2012), Medová (2008), Medová & Taraldsen (2007), Muriungi (2008), Pantcheva (2010, 2011b), Taraldsen (2010), etc.

2.1 Founding premises of the Nanosyntactic framework ²

2.1.1 Features project

Differently from more traditional views on word structure, it is proposed in Nanosyntax that morphemes are not the primitive units of words and that they consist of smaller entities, the features. The same conclusion was reached by the proponents of Distributed Morphology (Halle & Marantz 1993), in which morphemes are the phonological realization (i.e. the ‘spell-out’ in current terminology) of feature bundles under a single terminal. However, in Nanosyntax, morphemes are not viewed as the spell-out of features bundled under one terminal. Rather, morphemes are the phonological realization of hierarchical syntactic structures composed of syntactic layers. Each of these layers is the projection of a single semantic feature. For instance, the Latin nominal ending *-ās* in (1) does not spell out the (hypothetical) feature bundle in (2a) but the (hypothetical) asymmetric structure (Kayne 1994) illustrated in (2b).^{3, 4}

- (1) *puell-ās*
girl-ACC.FEM.PL
‘girls_{ACC}’



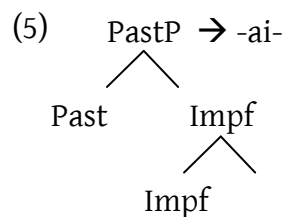
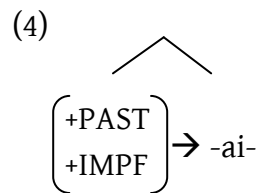
² This section is based on several introductory classes and written contributions such as Pantcheva (2011a), Caha (2009) and Starke (2009, 2010, 2011). I am also indebted to Guido vanden Wyngaerd whose notes of Starke (2011)’s lectures proved very useful for the writing of this section.

³ The view depicted in (2a) is adopted in frameworks such as Distributed Morphology (Halle & Marantz 1993). For a comparison of the theoretical aspects of Distributed Morphology and those of Nanosyntax, see Caha (2009: 51, 57-63).

⁴ Example (2b) is a simplification which merely serves to illustrate the basic tenets of Nanosyntax. In particular, as we will see in section 2.2, in Nanosyntax, case is encoded in specialised projections, ‘KPs’, which are composed of several structural case layers (Caha 2009). I gloss over this for now. Similarly, the number, gender, tense and aspect layers used for illustration here and below may correspond to larger chunks of structure.

Similarly, the verbal morpheme *-ai-* of the French example in (3) does not spell out the (hypothetical) feature bundle in (4) but the (hypothetical) constituent composed of (at least) two layers: one is the projection of the Aspect feature and the other is the projection of the Tense feature (5) (Starke 2010: 5).

- (3) Pierre lis-ai-t un livre.
 Pierre read-PAST.IMPF-3.SG a book
 ‘Pierre was reading a book.’



While certain frameworks take morphemes to be associated in the lexicon with features bundles, in Nanosyntax, morphemes are associated with a syntactic structure. Let us explore this hypothesis more precisely in the following section.

2.1.2 The syntactic nature of lexical items

In Nanosyntax, the lexicon is considered as a storage of syntactic structures which are paired with a phonological and a conceptual content (Pantcheva 2011a: 12-13). The entry of a lexical item γ is schematized in (6).

- (6) $\gamma \Leftrightarrow \langle \text{phonological content} ; \text{syntactic structure} ; \text{conceptual content} \rangle$

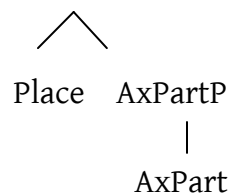
The syntactic structures are binary branching trees consisting of a hierarchical ordering of layers. These layers encode individual, privative features such as ‘past’, ‘conditional’, ‘count’, ‘definite’, ‘source’, ‘place’, ‘eventive’, ‘stative’, etc. phi-features are also assumed to project their own layers (Caha 2009: 218-219, 256; van Craenenbroeck 2012: 54; Starke 2013; Taraldsen 2009). As an illustration, consider the locative morpheme *-a* in (7). Pantcheva

(2011a: 11-12) associates it with the lexical entry in (8). The syntactic structure of this entry is composed of a layer projected by the semantic feature ‘place’. The Place head takes as its complement the projection of the semantic feature ‘axial part’.

- (7) am-a
 roof-LOC
 ‘on the roof’

Bagvalal; Pantcheva (2011a: 11-12)

- (8) -a \Leftrightarrow < /a/ , PlaceP , ON >



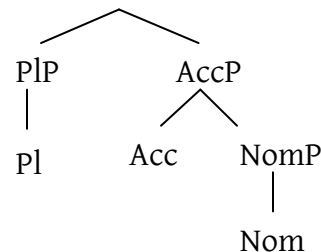
Pantcheva (2011a: 11-12)

The structure of a lexical item is not always that of a contiguous sequence of layers. Consider for instance the Finnish example in (9). Caha (2009: 75) argues that the lexical item *-t* suffixed onto the root *karhu* ‘bear’ in (9) corresponds to the lexical entry in (10). This lexical entry is the association of the phonological item /-t/ and a syntactic structure in which the layer projected by the number feature is adjoined to an accusative case layer, the head of which takes a nominative case layer in its complement.

- (9) karhu-t
 bear-ACC.PL

Finnish; Caha (2009: 74)

- (10) -t \Leftrightarrow < /t/ , AccP , ACCUSATIVE PLURAL >



adapted from Caha (2009: 75, his (43))

Note that, though the syntactic structure of lexical items is usually composed of more than one feature, morphemes may also be associated with a single layer, i.e. with the projection

of a single feature (Starke 2009: 2). Consider for instance, the data in (11). In (11a), the noun *karhu* is singular and is suffixed by the allative case morpheme *-lle*. Example (11b) provides the plural form of (11a). The form in (11b) differs from that in (11a) only in that it contains a marker *-i*. It is thus reasonable to assume that *-i* spells out the plural feature but no case-feature, contrary to *-t* in (9). The lexical entry *-i-* can thus be represented as in (12).

(11) a. *kahru-lle*

bear-ALL

‘onto the bear’

b. *kahru-i-lle*

bear-PL-ALL

‘onto the bears’

Finnish; adapted from Caha (2009: 73)

(12) $-i- \Leftrightarrow < /i/ , \text{ PLP } , \text{ PLURAL } >$
 $\quad \quad \quad |$
 $\quad \quad \quad \text{Pl}$

As we will see in section 2.1.3 and 2.1.4, the syntactic nature of the lexicon is a crucial ingredient in the mapping of syntax onto morphology/phonology in Nanosyntax.

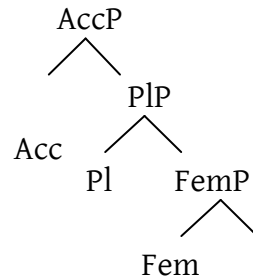
2.1.3 Post-syntactic phrasal spell-out

It follows from the hypothesis that features project their own structural layers that morphemes are not the terminals, i.e. the smallest units that syntax projects from (Starke 2010: 4). Syntax, instead, projects from individual features, the same submorphemic elements that compose the syntactic structure of lexical items in the lexicon. In other words, the atoms of Nanosyntax are not morphemes but individual semantic features (Starke 2009: 1-2). The question now arises how and when structures built in syntax receive a phonological form. For clarity’s sake, it is useful to proceed in two steps. In this section, I describe the nanosyntactic mechanism of lexical insertion in broad terms. I provide a detailed presentation in sections 2.1.4 and 2.1.5.

First, note that as a single morpheme can lexicalize several terminals, spell-out cannot target terminals but must be phrasal (Starke 2009: 1-2; Pantcheva 2011a: 10). Second, it is assumed in Nanosyntax that spell-out is post-syntactic: structures are first built in syntax and only then they are compared to the structures of the lexical items stored in the lexicon. If the structure of a lexical item matches a structure built in syntax, the phonological form and the conceptual content of the lexical item replace the structure built in syntax. For instance, let us assume that the Latin lexicon contains the lexical entry

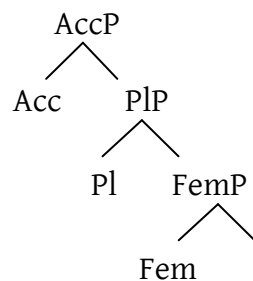
in (13). Let us further assume that the syntax has built the structure in (14). As this structure matches with that associated with the lexical item *-ās* in (13), the structure in (14) can be phonologically realized by */-ās/* and be associated with the conceptual content ACCUSATIVE FEMININE PLURAL (15).⁵

(13) *-ās* \Leftrightarrow \langle */ās/* ,

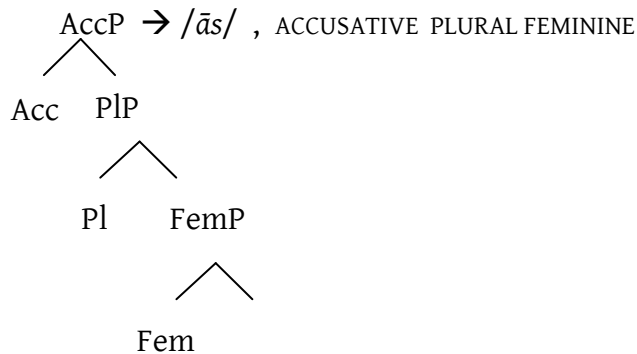


, ACCUSATIVE PLURAL FEMININE \rangle

(14)



(15)



In the next sections, I describe the lexicalization mechanism in more details.

⁵ In what follows, I will simply be saying that a structure is spelled out by a morpheme X. I also leave the mapping to semantics aside till section 2.2.2.

2.1.4 Cyclic spell-out and spell-out driven movement

In Nanosyntax, the search for a matching structure in the lexicon is mandatory after each step of external and internal merge of a syntactic layer. This is referred to as ‘cyclic spell-out’ in the literature (Starke 2010; Caha 2009; Pantcheva 2011b). Once the lexicon is accessed, two scenarios are possible (Pantcheva 2011a: 30; Starke 2011): either the structure created in syntax corresponds to that of a stored lexical item (scenario 1) or the structure built in syntax does not find any match (scenario 2). Let us see what happens in each case.

Scenario 1

Assume that the syntactic component has built a structure S. This structure is immediately sent to spell-out and, under scenario 1, it finds a matching structure in the lexicon. In this case, the morpheme M paired with this stored structure is inserted to spell out the structure S. Though structure S has been replaced by a lexical item it is not simply erased. Rather, structure S re-enters the syntactic component and the cycle starts anew: a new layer is externally merged above structure S, yielding structure S’. The lexicon is consulted again. If a structure stored in the lexicon matches S’, the morpheme M’ paired with this structure spells out S’. In other words, the morpheme M’, which spells out S’, replaces M, which spelled out S. In general, it is said in Nanosyntax that previous spell-outs can be overridden by later instances of Spell-Out.

As an illustration, consider endings *-o* and *-i* of Italian masculine nouns (16). The suffix *-o* encodes the masculine gender in the absence of a plural feature and *-i* encodes masculine and plural.

(16) a. *fratell-o*

brother-MASC

‘brother’

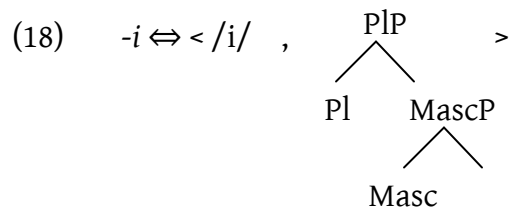
b. *fratell-i*

brother-MASC.PL

‘brothers’

Let us now assume that the lexicon contains the lexical entries in (17) and (18).

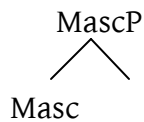
(17) $-o \Leftrightarrow </o/ , \begin{array}{c} \text{MascP} \\ \swarrow \quad \searrow \\ \text{Masc} \end{array} >$



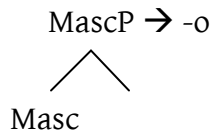
Putting aside the root noun for now, let us see how the derivation of the morphemes -o and -i proceeds. For sake of clarity, I number the steps of the derivation.

1. Assume that the syntax has built the structure S in (19). This structure is then sent to spell-out and the lexicon is consulted. There, a matching structure is found. It is that of the lexical entry in (17). As a result, structure S receives the spell-out -o (20).

(19) Structure S

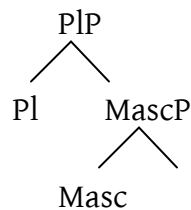


(20) Successful spell-out of structure S

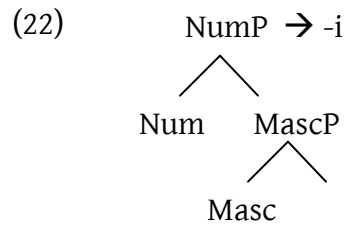


2. At this point, structure S goes back to the syntactic component and a plural layer is merged above structure S, yielding S' (21).

(21) Structure S'



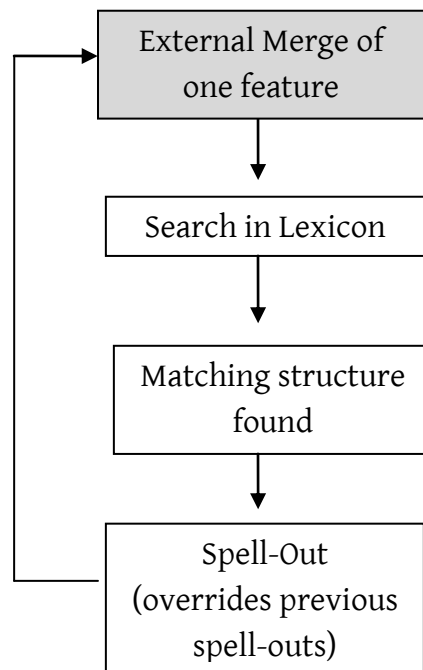
3. The lexicon is consulted once again and a matching structure is found, namely that associated with the morpheme -i in the lexical entry (18). Structure S' can thus be successfully spelled out (22).



As can be seen from this example, the initial spell-out -o of structure S has been overridden by the spell-out -i of structure S'.

Figure 1 summarizes scenario 1. Here, as well as below, gray shading is used to signal processes that happen in the syntactic component.

Figure 1: Schematic representation of the Nanosyntactic lexicalization system (scenario 1)



I now turn to a more complex situation, that in which a structure built in syntax does not find a matching structure in the lexicon. I call this situation ‘scenario 2’.

Scenario 2

When none of the structures stored in the lexicon matches a structure S built in syntax, S goes back to the syntactic component without being spelled out. There, the configuration of S is modified so as to transform S into a structure that can be lexicalized.

To illustrate scenario 2, I present the derivation of the Finnish example in (11), repeated in (23). In (12), it was proposed that the plural morpheme *-i-* is listed in the lexicon under the entry repeated in (24).

(23) kahru-i-lle
 bear-PL-ALL
 ‘onto the bears’

Finnish; adapted from Caha (2009: 73)

(24) $-i- \Leftrightarrow \langle /i/ , \text{PlP} \rangle$
 $\quad \quad \quad |$
 $\quad \quad \quad \text{Pl}$

Let us also assume that the allative morpheme has the following lexical entry. ‘K’ represents Kase, case.

(25) $-lle \Leftrightarrow \langle /lle/ , \text{K}_{\text{ALL}}\text{P} \rangle$
 $\quad \quad \quad |$
 $\quad \quad \quad \text{K}_{\text{ALL}}$

Let us see how (23) is derived in Nanosyntax (see Caha 2009: 73 ; Starke 2011). I assume that number is merged closer to the root than case, as illustrated in (26) (Caha 2009: 74; Starke 2011, 2013).

(26) [KP [PlP [NP]]]

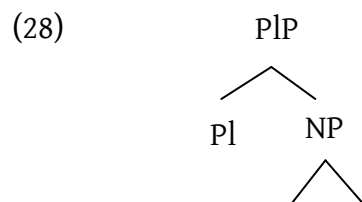
1. First, the root NP is merged. The structure is spelled out (27). This is an illustration of scenario 1.

(27)

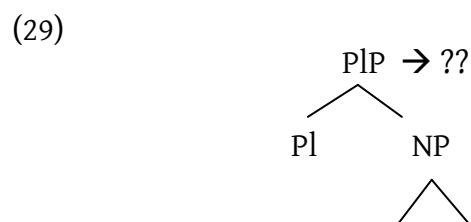
NP → karhu

△

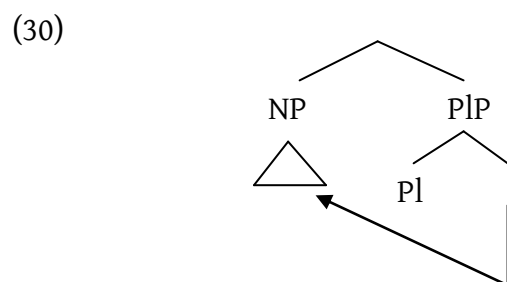
2. Then, the spelled out structure in (27) re-enters the syntax and the plural layer is merged (28).



3. At this point, the lexicon is consulted anew. However, no lexical item is found with a structure matching that in (28). Observe that (24) is not a matching item: though there is indeed the plural component which is also found in (28), the plural component in (28) is not a constituent all by itself, the full constituent PlP contains also the nominal root, NP. The structure in (28) can hence not be lexicalized, as illustrated in (29).



4. In such a case, scenario 2 is activated: the structure in (29) must go back to the syntactic component without receiving a spell-out. There, the syntax attempts to rescue the structure in (29) by modifying its configuration in order to find a lexical match. More precisely, the nodes which obstruct matching are evacuated and adjoined to the last externally merged layer. This movement does not leave any trace (Starke 2009, 2010: 11; Pantcheva 2011a: 21, 25, 27). In our example, the NP node of (29) raises above PlP (30).

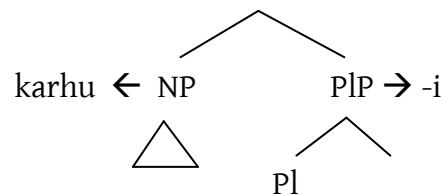


The aim of this movement is to create a syntactic configuration that will find a match in the lexicon and thus be successfully spelled out. In Nanosyntax, the obstructing node, NP in (29), is said to undergo ‘spell-out driven movement’ (31).

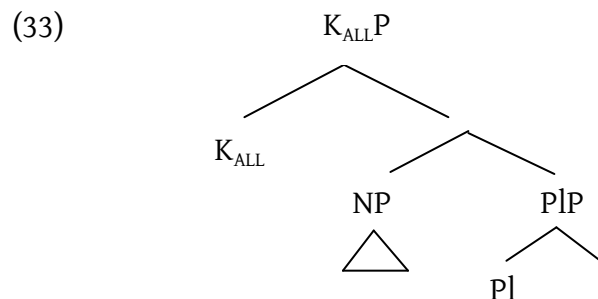
- (31) Spell-out driven movement: last -resort movement of the nodes preventing matching. This movement adjoins the obstructing nodes to the last externally merged layer in order to create a structure that can be spelled-out. The moved node does not leave any trace.⁶

5. At this point, the lexicon is consulted again. As assumed in (24), the morpheme *-i* is now able to spell out the layer projected by the plural feature. Assuming that spell-out driven movement does not leave traces, the NP which was in the complement of the Plural head does not obstruct matching anymore. The structure in (30) can thus now be spelled out successfully (32) and the string *karhu-i* is obtained.

- (32) Structure yielding the string *karhu-i*



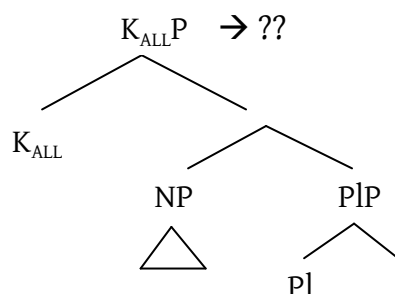
6. Now, the structure in (32) goes back to the syntactic component and the layer projected by the case feature K_{ALL} is merged 0.



The lexicon is consulted again but no matching structure is found. Spell-out is thus not possible (34).

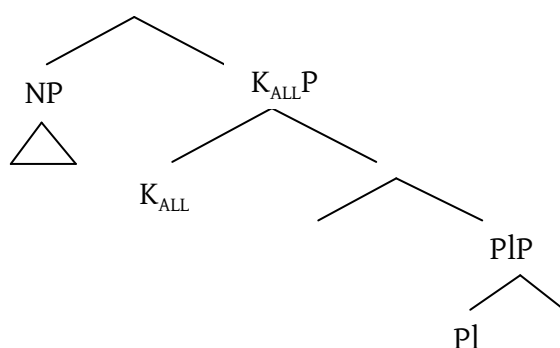
⁶ Alternatively, it is also said that moved nodes leave traces but that these traces are ignored (Caha 2009: 54-55, 96; Pantcheva 2011a: 21).

(34)



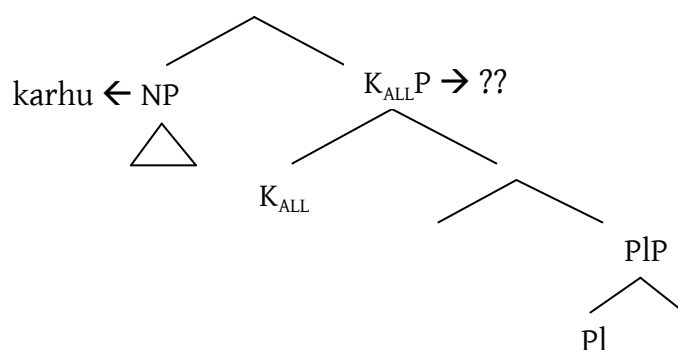
7. The structure in (34) hence goes back to syntax and, as in step 4 above, spell-out driven movement of NP takes place. This yields the configuration in (35).

(35)



8. While NP itself is a constituent and can be spelled out by *karhu*, there is still no morpheme in the lexicon which is paired with a structure in which the allative KP and the number layer form a constituent. Consequently, the spell-out driven movement of NP failed to produce a structure that can be spelled out (36).

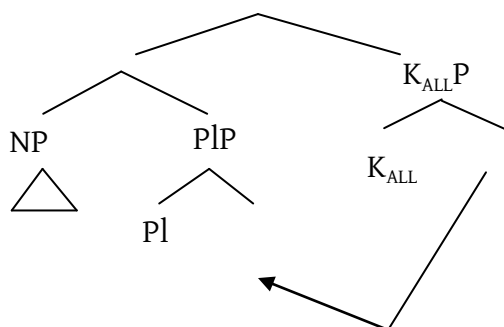
(36)



9. The structure in (36) returns to the syntactic component and a second attempt to rescue the structure takes place. First, the previous spell-out driven movement is undone. That is, the structure returns to its stage illustrated in (33). Then, spell-out driven movement applies again. This time, however, this movement does not only target NP but the whole

PlP. That is, NP raises and pied-pipes the projection to which it is adjoined (37) (Pantcheva 2011a: 30, Starke 2011).

(37)



10. Next, the lexicon is accessed again. The layer projected by the allative KP finds a matching structure. This structure is that of the morpheme *-lle* stored in the lexical entry in (25). Additionally, like in (32), NP and PlP are spelled out by *karhu* and *-i-*, respectively. Thus, after this second attempt to create a lexicalizable structure, (37) is successfully lexicalized (38). The string obtained is *karhu-i-lle*.⁷

(38) Structure of the string *karhu-i-lle*

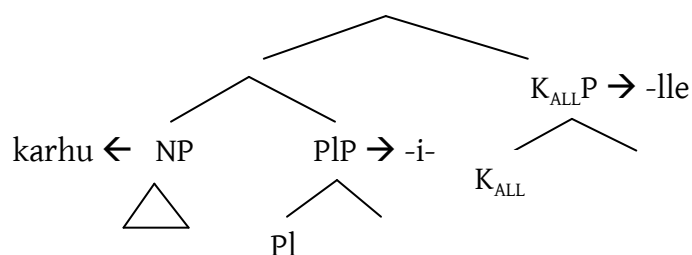
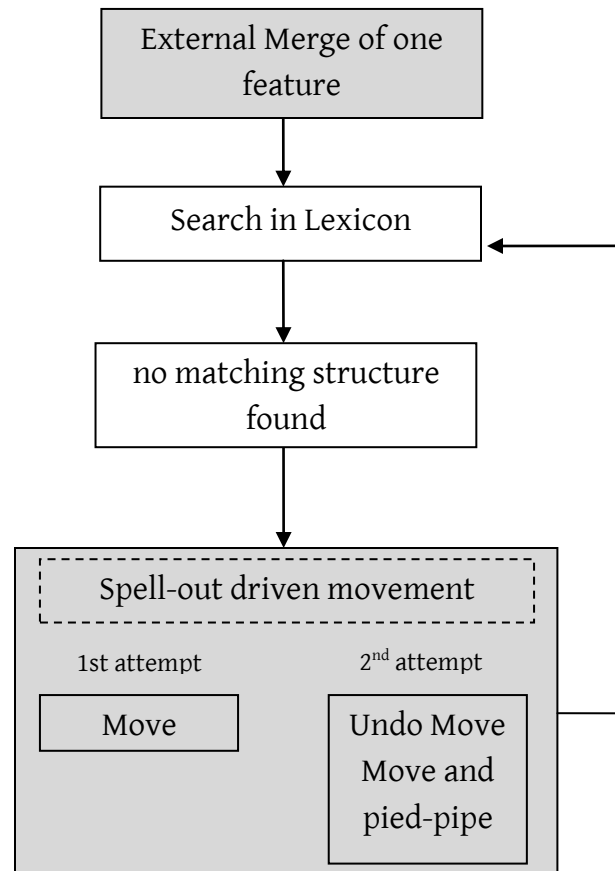


Figure 2 summarizes the mechanism of scenario 2.

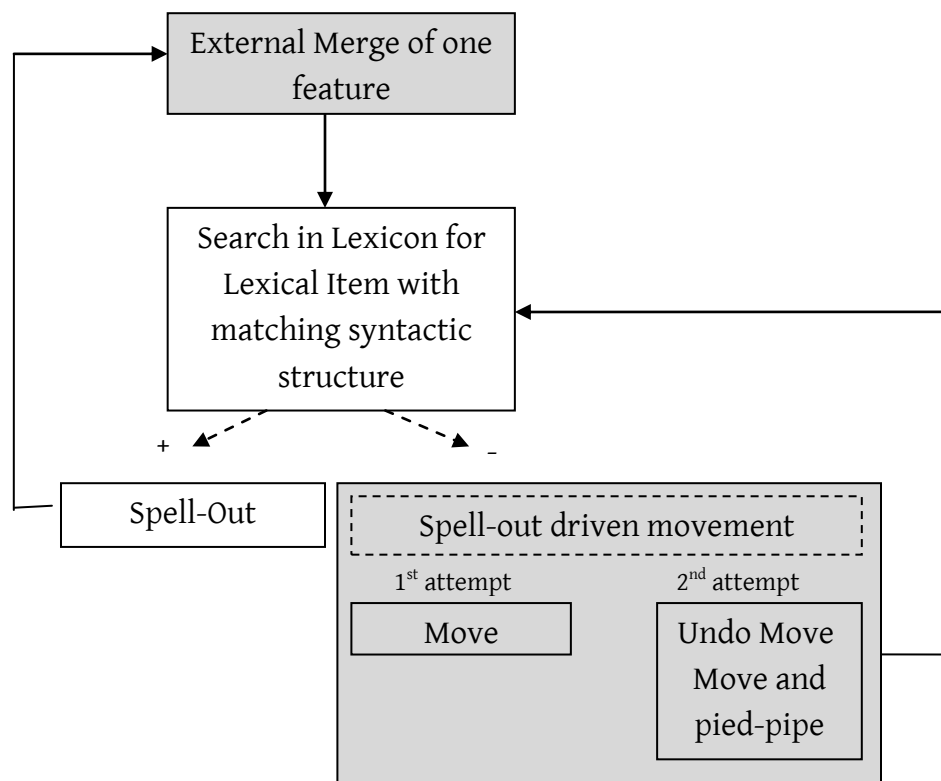
⁷ It may happen that no matching structure is found in the lexicon after this second attempt to rescue the structure (Starke 2011). However, this case does not arise in the data I study in the following chapters. I therefore end the description of spell-out driven movements here.

Figure 2: Schematic representation of the Nanosyntactic lexicalization system (scenario 2)



In order to have an overview of the whole Nanosyntactic spell-out system, I combine scenarios 1 and 2 in Figure 3.

Figure 3: Schematic representation of the Nanosyntactic lexicalization system



So far, I have remained rather vague on the notion of matching. In all the examples given above, the structures stored in the lexicon were identical to those built in the syntax. Perfect identity is however not necessary (Caha 2009: 54; Pantcheva 2011a: 14). I discuss this point in the next section.

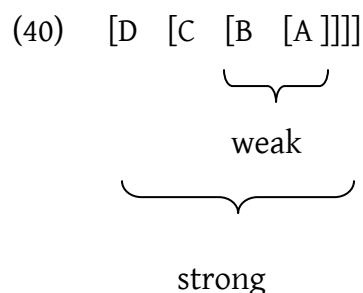
2.1.5 Refining the spell-out system

2.1.5.1 The Superset Principle

In Nanosyntax, a syntactic structure *S* stored in the lexicon is said to match a structure *T* built by syntax if *S* is identical to *T* or if *S* contains *T*. Thus the lexical item associated with *S* can provide *T* with a spell-out if *T* is identical to *S* or if *T* is a subconstituent of *S* (39) (Starke 2009: 3; Caha 2009: 55).

- (39) Superset Principle: “A phonological exponent is inserted into a node if its lexical entry has a (sub-) constituent which matches that node (ignoring traces).” Caha (2009: 96)

As an illustration, let us consider pronouns. To capture the distribution of pronouns, Cardinaletti & Starke (1999) set up a classification in three types: strong, weak and clitic. For the sake of illustration, I here concentrate on strong and weak pronouns and I use French as an example. Cardinaletti & Starke (1999) demonstrate that the structure of strong pronouns contains that of weak pronouns. That is, the structure of strong pronouns is a superset of the structure of weak pronouns. In the illustration in (40), the strong form of a pronoun is associated with the layers projected from the semantic features D, C, B and A. The weak form is associated with a subconstituent of this syntactic structure, the layers B and A.



Now, given the Superset Principle in (39), the phonological form of a strong pronoun can be used to spell out the structure of a weak pronoun. In other words, the form of a strong pronoun and that of a weak pronoun may be syncretic. This is the case in French, for instance, where the pronominal form *elle* is used either as a strong (41a) or as a weak pronoun (41b).

- (41) a. Pierre travaille. Marie, quant à elle, joue sur la plage.
 Pierre works Marie as to she_{STRONG} plays on the beach
 ‘Pierre is working. As for Marie, she’s playing on the beach.’
 b. Elle joue sur la plage.
 she_{WEAK} plays on the beach.
 ‘She’s playing on the beach.’

In other words, there must be a lexical item *elle* associated with the structure [D[C[B[A]]]] (42). When the structure [D[C[B[A]]]] is built by the syntax, like in the underlying structure of (41), the match is perfect. Thus the form *elle* is inserted. When the syntax has built the structure [B[A]], the form *elle* can also be inserted because [B[A]] is a subset of the structure of the lexical item *elle* (Starke 2011).

- (42) *elle* ⇔ < /elle/ , [D [C [B [A]]]] >

The question now arises why the masculine counterpart, *lui*, of the strong pronoun *elle* cannot be used in case a weak pronoun is required such as in (43). As shown in this example, the form *lui* cannot occur in the canonical subject position. This position must be occupied by the weak form *il*.⁸

- (43) *Il* / # *lui* joue sur la plage.
 he_{WEAK} he_{STRONG} plays on the beach.
 ‘He’s playing on the beach.’

I address this question in the next section.

2.1.5.2 The Elsewhere Principle

On a par with *elle*_{STRONG}, the strong form *lui* spells out a structure which is a superset of the structure of a weak pronoun. The form *lui* should thus be able to spell out the structure of a weak pronoun, contrary to facts. Instead, the form *il* spells out this smaller structure. In Nanosyntax, this apparent contradiction is resolved by adoption of the Elsewhere Principle (Kiparski 1973). Adapted to the Nanosyntactic framework, the Elsewhere Principle dictates that if more than one lexical item can lexicalize the same structure built in syntax, the lexical item whose structure matches best that built in syntax has to be chosen (Caha 2009: 55; Starke 2009: 3-4).

- (44) The Nanosyntactic Elsewhere Principle: “At each cycle, if several lexical items match the root node, the candidate with least unused nodes wins.” Starke (2009: 4)

Let us illustrate this with the pronouns *lui* and *il*. Assume the two lexical entries in (45).

- (45) a. *lui* ⇔ < /lui/ , [D [C [B [A]]]] >
 b. *il* ⇔ < /il/ , [B [A]] >

⁸ The strong pronouns *elle* and *lui* are also grammatical in (41b) and (43). However, using these strong forms yields a focused interpretation of the referent (i), contrary to the weak forms in (41a) and (43). These strong pronouns thus probably occupy a position in the left-periphery of the clause.

- (i) a. ELLE joue sur la plage, pas LUI.
 she_{STRONG} plays on the beach, not he_{STRONG}
 ‘SHE is playing on the beach, not HIM.’
 b. LUI joue sur la plage, pas ELLE.
 he_{STRONG} plays on the beach, not she_{STRONG}
 ‘HE is playing on the beach, not HER.’

Now, assume the syntax has built the structure [B [A]]. Both the lexical items *lui* and *il* are in competition to spell out this structure: the structure paired with *il* is identical to that built in syntax and the structure paired with *lui* is a superset of the latter. The choice in this situation is resolved by the Elsewhere Principle: the form *il* is chosen because the structure with which it is associated in the lexicon is a more specific match.

2.1.6 Summary

Nanosyntax starts from the hypothesis that the atoms of syntax are submorphemic. The atoms of syntax are structural layers projected by individual semantic features. They combine into asymmetric trees which are lexicalized postsyntactically by morphemes stored in the lexicon with a syntactic structure. A limited number of axioms is postulated. I recapitulate those presented above.

- (46) Cyclic spell-out: after each external or internal merge of a feature, lexical access takes place. If a structure built in syntax finds a matching structure in the lexicon, lexical insertion takes place. The last spell-out overrides the previous one. Whether the structure built by syntax finds a matching structure or not, it goes back to the syntactic component and the computation carries on.

- (47) Spell-out driven movement: last-resort movement of the nodes preventing matching. This movement adjoins the obstructing nodes to the last externally merged layer in order to create a structure that can be spelled-out. No trace is left by the moved node. In a first attempt to rescue a structure that could not be spelled out, only the constituent containing the root is displaced. In a second attempt, the constituent containing the root moves and pied-pipes the node to which it is adjoined.
 The three attempts to spell out can be schematized as follows (Pantcheva 2011a: 30; Starke 2011):
 stay > cyclic move > pied-pipe

- (48) Superset Principle: “A phonological exponent is inserted into a node if its lexical entry has a (sub-) constituent which matches that node (ignoring traces).” Caha (2009: 96)

- (49) The Nanosyntactic Elsewhere Principle: “At each cycle, if several lexical items match the root node, the candidate with least unused nodes wins.” Starke (2009: 4)

I now turn to a presentation of Caha (2009)’s nanosyntactic perspective on case marking.

2.2 Nanosyntax and case

In this section, I provide a partial summary of Caha (2009)’s nanosyntactic theory of case. I limit myself to a presentation of the theoretical aspects that will be relevant in the next chapters.

2.2.1 The Case sequence and the spell-out of case

To simplify the discussion above, I assumed that case morphemes were the spell-out of a single case feature. For instance, in example (23), repeated in (50), I assumed that the morpheme *-lle* spells out a single layer projected by a feature K_{ALL} (51).

- (50) kahru-i-lle
 bear-PL-ALL
 ‘onto the bears’

Finnish; adapted from Caha (2009: 73)

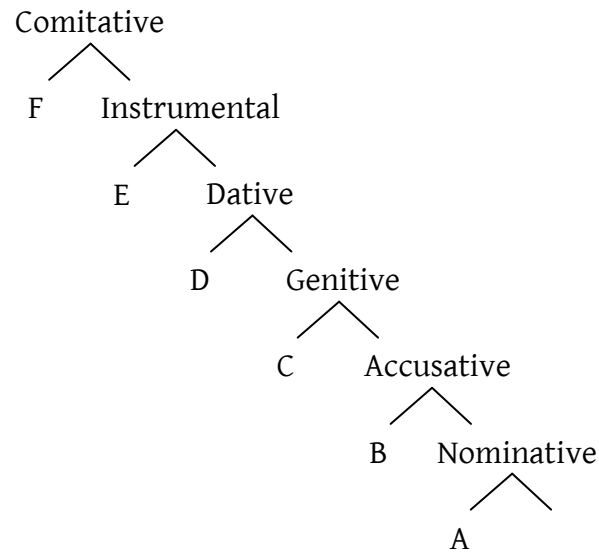
- (51) $K_{ALL}P \rightarrow -lle$
 |
 K_{ALL}

Building on a thorough study of case-marking in several languages, Caha however demonstrates that case morphemes have a rich underlying syntactic structure (see also Pantcheva 2011b). This structure, claimed to be universal (Caha 2009: 33), is a KP composed of layers projected by semantic features and that are merged cumulatively on top of DPs.⁹ In other words, Caha (2009) argues that KPs must be split. DPs are embedded in the articulated KP, forming a KP* (Caha 2009: 142-fn4). As an illustration, the underlying structure of the Hungarian comitative marker *-val* in (52) is the sequence of case layers in (53).

- (52) Megyünk Éva-val.
 we.go Éva-COMIT
 ‘We go /are going with Éva.’

⁹ I use the term ‘DPs’ in a general sense here, i.e. as a cover term for nominal constituents of all sizes.

(53) Structure of a comitative KP ¹⁰



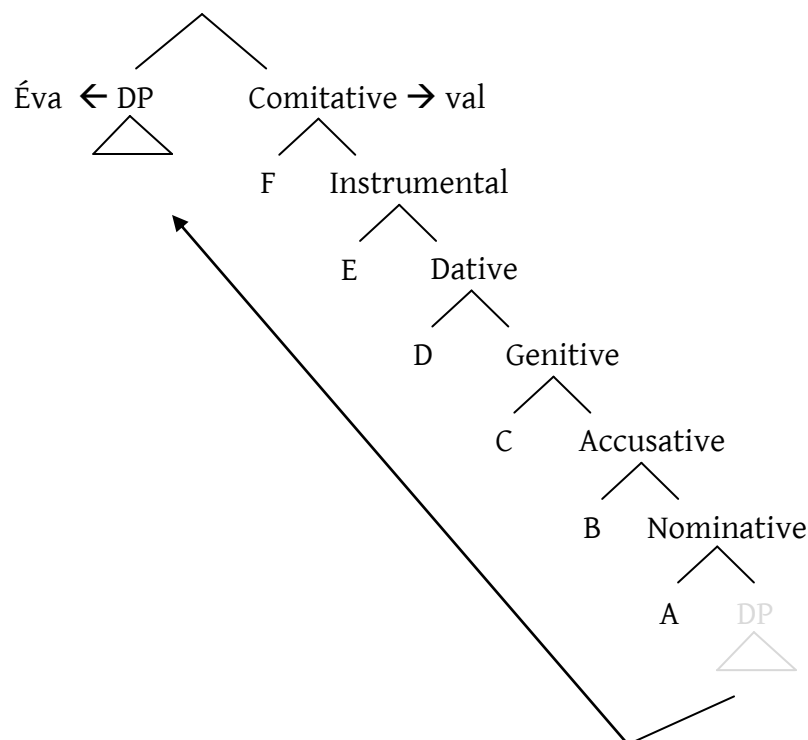
adapted from Caha (2009: 24, 27, 137)

The comitative case morpheme is suffixed on the DP in (52) because the DP raises out of the embedding KP and lands above the Comitative KP (Caha 2009: 29) by spell-out driven movement.¹¹ This is shown in (54).

¹⁰ The case sequence presented here displays only some of the cross-linguistically most common cases. See Caha (2009: 130) for a more fine-grained decomposition.

¹¹ To simplify the discussion, I gloss over the insertion and lexicalization mechanism discussed in section 1 and only provides the result of the derivation.

(54)

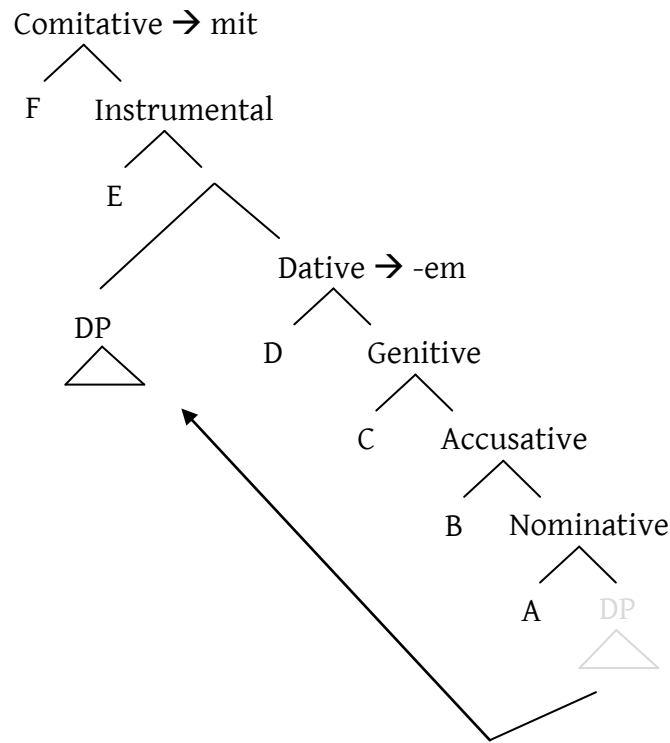


It is well known that case is not invariably lexicalized by suffixes: prepositions can also realize case features. Caha (2009: 27-36) argues that, like case suffixes (or postpositions), prepositions are the spell-outs of case layers. What determines whether case layers are lexicalized by prepositions or by case-suffixes is the height to which the DP raises within its embedding KP. Consider for instance the comitative PP *mit einem Hund* ‘with a dog’ in the German example (55) in which the preposition *mit* ‘with’ is followed by a nominal *einem Hund* ‘a dog’ in the dative case. Caha (2009: 31, 41-42) argues that in German, the DP raises above the dative layer. The consequence of this is that the comitative and instrumental layers are spelled out by a preposition, *mit*, and that the dative constituent is realized by a case suffix, *-m* in (55).¹²

- (55) Die Polizisten gehen mit ein-em Hund durch die Stadt.
The policemen go with a-DAT dog through the town.
‘The policemen walk around in the city with a dog.’

¹² The reason why the dative marker appears on the indefinite determiner and not on the noun is not discussed by Caha (2009).

(56)



I mentioned without discussion that according to Caha, KPs are composed of layers projected by semantic features. In the next section, I briefly summarize Caha (2009)'s perspective on the semantics of case. For a more detailed presentation, I refer the interested reader to Caha (2009: especially Chapter 5).

2.2.2 The semantics of case

Like all the other atoms of Nanosyntax, case layers are the mapping of semantic features onto syntax. Hence, for instance, Caha (2009: 142) argues that the number of case layers entering the composition of a KP is a function of the theta-role of the argument over which the KP is merged. For example, a DP bearing an accompaniment theta-role is embedded under the six case layers that form a comitative KP ((52), (54); (55), (56)). In turn, a DP bearing a recipient theta-role, such as *John* in (57), is base-generated under the four case layers that constitute a dative KP. This is illustrated in (58).

(57) Mary sent the letter **to** John.

(58) [Dative [Genitive [Accusative [Nominative [_{DP}John]]]] → to John

Drawing on this mapping of theta-role onto KPs enables us to address the question of the semantics of case-constituents and of single case layers. Consider the French examples in

(59). In (59a), Marie is the possessor of the dress. The possession relation is expressed by the preposition *de*. In (59b), Marie is a recipient. Roughly, there is a transfer of possession of which Marie is the end point. This is expressed by the use of the preposition *à*. In Caha's theory, this concomitant meaning and form differences are two sides of the same coin. Assuming that possession is mapped onto syntax by merging a genitive KP, the expression of *change* of possession is mapped by adding a dative case layer on top of the genitive KP (Caha 2009: 188), as illustrated in (60). The use of two distinct prepositions reflects the different sizes of the two KPs. The preposition *de* is the spell-out of the genitive KP (61a) and the preposition *à* spells out the larger, dative KP (61b).

(59) a. La robe **de** Marie.

The dress of Marie

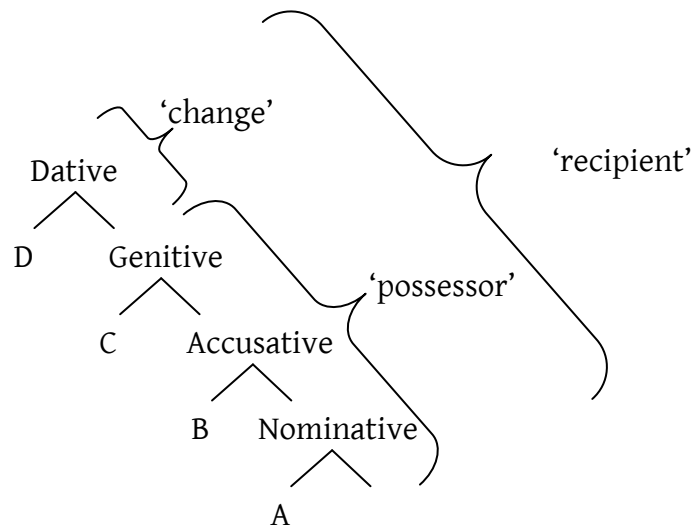
'Marie's dress.'

b. Jeanne offre sa robe préférée **à** Marie.

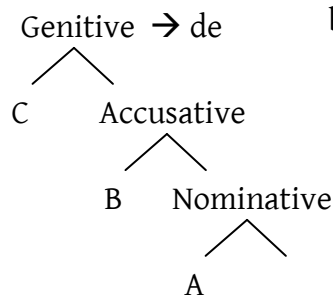
Jeanne gives her dress favorite to Marie

'Jeanne gives her favorite dress to Marie.'

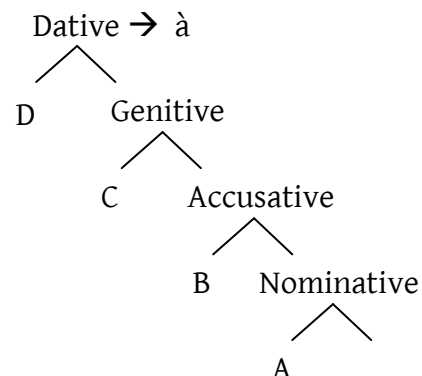
(60)



(61) a.



b.



We have seen here an example in which two distinct syntactic structures are spelled-out by two distinct morphemes. As we have already seen in the earlier discussion, however, two syntactic structures may be lexicalized by the same morpheme effectively leading to syncretism. In the next section, I explain how Caha’s perspective on case predicts when such syncretisms are possible or impossible.

2.2.3 Case syncretisms

As is well known, syncretism is pervasive in the domain of case. Yet, it has been observed that case syncretism is not an unconstrained phenomenon (Caha 2009: 5): crosslinguistically, a single morpheme may spell out two distinct cases only if the latter are contiguous on the following sequence:

- (62) Universal Case Contiguity:
 nominative – accusative – genitive – dative – instrumental – comitative
 adapted from Caha (2009: 10, his (10))

As an illustration, consider Table 1. This table shows that in Russian, syncretisms only arise between cases that are contiguous on the sequence in (62). For instance, nominative *stoly* ‘table’ is syncretic with accusative *stoly*: nominative and accusative are adjacent in (62). Similarly, accusative *studenta* and genitive *studenta* are syncretic: again, accusative and genitive are adjacent in (62).

Table 1: Case syncretisms in Russian (selected from Caha 2009: 12-13)

	table _{PL}	student _{SG}	100
NOM	stol-y	student-∅	st-o
ACC	stol-y	student-a	st-o
GEN	stol-ov	student-a	st-a
DAT	stol-am	student-u	st-a
INS	stol-ami	student-om	st-a

Conversely, morphemes that correspond to non-contiguous cases are usually not syncretic. For instance, the ‘ABA’-syncretism patterns illustrated in Table 2 are very rarely attested in the languages studied by Caha (2009).¹³

¹³ Caha (2009: 10-15 a.o.) demonstrates that the rare offending syncretisms that arise are accidental, i.e. they occur on single lexical items or in single paradigms.

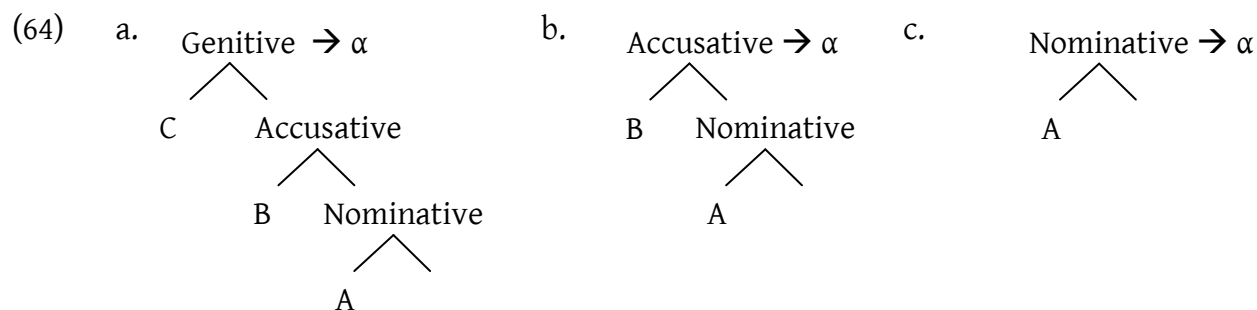
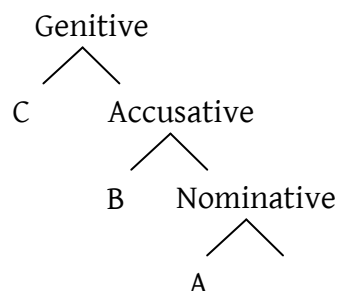
Table 2: Examples of rarely attested syncretism patterns

NOM	A	
ACC	B	
GEN	A	A
DAT		B
INS		A

Caha (2009: 55-57) demonstrates that the restriction played on case syncretisms by the contiguity in (62) follows straightforwardly if we adopt the case sequence in (53), the Superset Principle in (39) and the Elsewhere Principle in (44). I illustrate Caha's reasoning using the lower part of the case sequence but the same would apply for any other chunk of this sequence.

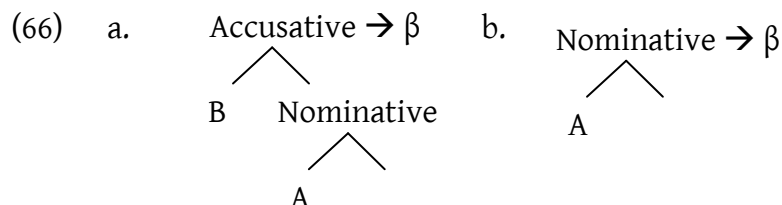
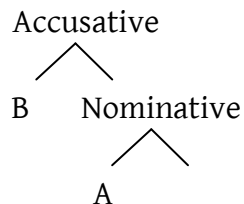
Assume the existence of a case marker α which is associated in the lexicon with the structure in (63). By the Superset Principle, this case marker can be inserted whenever the syntax has built the KPs in (64a, b or c).

(63) Structure of the lexical item α



Assume now that there is another case marker, β , which is paired with the structure in (65). By the Superset Principle, β can spell out the KPs in (66a, b) built in syntax.

(65) Structure of the lexical item β



Observe now the following. First, if a genitive KP is built in syntax, it can only be spelled out by α . This is because only the structure of α in (63) matches that of a genitive KP. The structure of β in (65) is neither identical to nor a superset of a genitive KP. In case an accusative or a nominative KP is built, the situation is more complicated. In both cases, not only α but also β can be inserted (64b-66a; 64c-66b). The Elsewhere Principle however resolves this conflict: whether an accusative or a nominative KP is sent to spell-out, the lexical item β will be inserted. This is because in both cases, the structure associated with β is a more specific match than that associated with α . Indeed, contrary to the structure in (63), that in (65) is a perfect match for an accusative KP. The structure in (65) also corresponds more closely to that of a nominative KP than the structure in (63): the structure of β matches a Nominative KP with but one layer while the structure of α matches a Nominative KP with but two layers. Hence, the system predicts that β will always be inserted if syntax builds a KP that is smaller than a genitive KP. In particular, the system predicts that if an accusative KP is spelled out by β , a nominative KP cannot be spelled out by α . I recapitulate the possible and impossible spell-outs in Table 3.

Table 3: Possible and impossible spell-out patterns

NOM	β	$*\alpha$	$*\alpha$
ACC	β	$*\alpha$	β
GEN	α	α	α

As the same reasoning applies to any chunk of the case sequence, we can formulate the structural adjacency requirement on syncretism in more general terms:

- (67) If a lexical item β lexicalizes a structural chunk n and a lexical item α lexicalizes a structure composed of $n + (\geq 1)$ layers, then β will always be a better match than α for a structure made of $n - (\geq 1)$ layers.

This accounts for the crosslinguistic scarcity of ABA-patterns (Table 2).

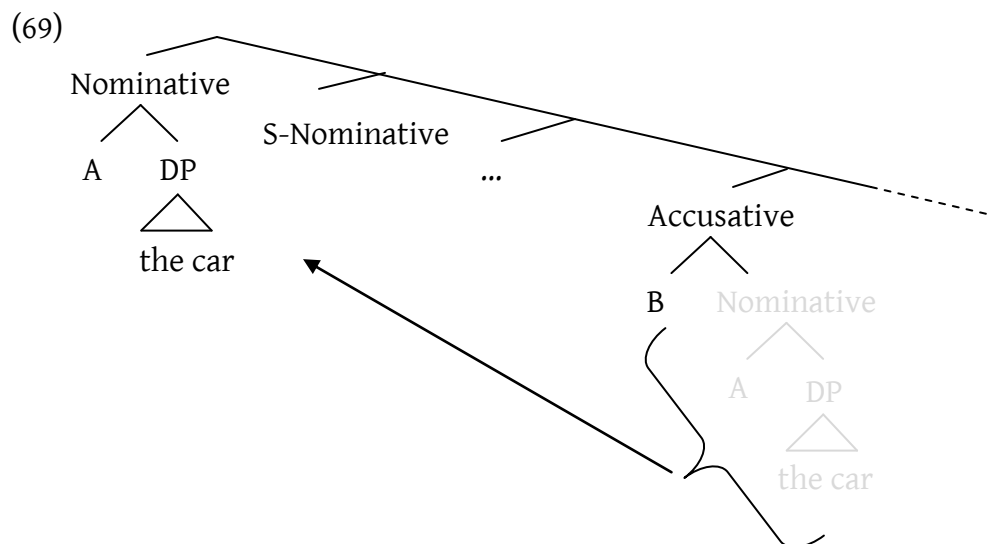
In the next section, I present Caha (2009)'s perspective on case alternations.

2.2.4 Peeling and the spell-out of peels

Recall the following points argued for by Caha (2009): (i) KPs are composed of case layers organized hierarchically according to a universal template, (ii) the number of base-generated case layers above a DP depends on the theta-role assigned to that DP. The question arising at this point is how to account for case alternations, i.e. the fact that an argument with the same theta-role does not always bear the same case. For instance, a patient argument typically bears accusative case in the active voice but nominative case in the passive. This illustrated with the German sentences in (68).

- (68) a. Jemand wäscht gerade d-en Wagen.
 Somebody cleans just.now the-ACC car
 'Somebody is cleaning the car.'
- b. D-er Wagen wird gerade gewaschen.
 The-NOM car becomes just.now washed.
 'The car is being washed.'

Caha (2009: Chapter 4)'s account of case alternations can be summed up as follows. An argument is base-generated with the number of case layers required for the expression of its theta-role, forming a KP^* (Caha 2009: 142). In the course of the clausal derivation KPs^* may be split up: this happens when the lower part of a KP^* is attracted by a case selecting head, 'S(elektor)-k', higher up in the clausal spine (Caha 2009: 143) and the higher part is stranded. The stranded part of the KP^* is said to be 'peeled' (Caha 2009: 142). To illustrate this, let us come back to the examples in (68). The patient argument *den Wagen* is base-generated as an accusative KP^* . In the derivation of the passive clause in (68b), a head attracts the nominative constituent which is part of the accusative KP^* . The accusative case layer is peeled by the movement of the nominative constituent *der Wagen*. This is illustrated in (69).



adapted from Caha (2009: 144, his (11))

Caha (2009: 157-170) then addresses the question of what occurs with the peeled case layers. His general idea is that the layers left behind by peeling are spelled out as (part of) other lexical items. In (70) I reproduce Caha (2009:160-162)'s example from Chichewa, a Bantu language, in which peeled case layers can be lexicalized as an applicative morpheme.¹⁴

In (70a), the instrument *mikondo* 'spears' is preceded by the preposition *ndi* 'with'. In (70b), *mikondo* is bare and an applicative morpheme, *-ir*, appears suffixed on the verbal root.

(70) a. asilikali a-na-bay-a njovu **ndi** mikondo.

soldiers PL-PAST-stab-ASP elephants with spears

b. asilikali a-na-bay-**ir**-a mikondo njovu.

soldiers PL-PAST-stab-'WITH'-ASP spears elephants

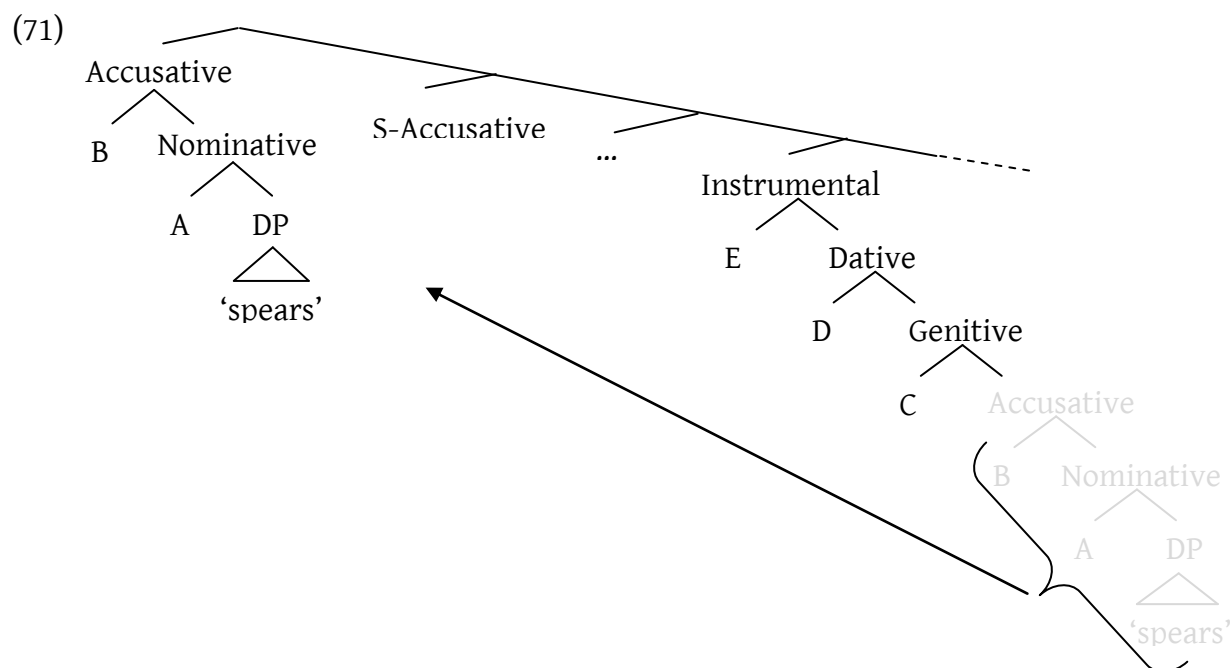
Both: 'The soldiers stabbed the elephants with spears.'

Chichewa; Caha (2009: 160), from Baker (1988)

Caha's account of these data is the following. The noun *mikondo* bears the instrument theta-role. It is thus base-generated under an instrumental KP. This instrumental KP is spelled out by the preposition *ndi* in (70a). In (70b), the instrumental KP* has undergone

¹⁴ If refer the interested reader to Caha (2009: sections 4.6, 5.3, 5.5) for cases in which the peeled layers are spelled out as part of other lexical items such as auxiliaries and prepositions.

peeling: the accusative node has raised and the upper instrumental, dative and genitive layers have been stranded (71).



adapted from Caha (2009: 62, his 35)

The reason for which the preposition and the applicative morpheme do not have the same lexicalization is that they do not spell out the same number of case layers. As illustrated in (72), the preposition *ndi* spells out the whole KP while the applicative morpheme *-ir* only spells out the topmost three layers (Caha 2009: 162).

- (72) a. [Instrumental [Dative [Genitive [Accusative [Nominative]]]]] → *ndi*
 b. [Instrumental [Dative [Genitive]]] → *-ir*

According to Caha (2009: 161), the applicative morpheme *-ir* shows up on the verb because the peeled layers it spells out are stranded within the verbal phrase. As all movement is phrasal, when the verb raises further up, it carries the peeled layers along.

As Caha (2009: 157) points out, peeling is a standard case of sub-extraction, which is a device independently needed in the grammar. Caha's account of case-alternations in terms of peeling thus reduces the theoretical apparatus in that it uses tools that are not specific to the domain of case marking (Caha 2009: 185).

2.2.5 Summary

Building on the premises of Nanosyntax, Caha (2009) develops a theory of case marking. In this section I have presented Caha's main hypothesis which will be relevant for the following chapters. I summarize them here.

- (73) Case markers lexicalize a hierarchical sequence of syntactic layers projected by individual semantic features following a universal template.
- (74) The number of case layers projected above a DP is determined by the theta-role assigned to that DP.
- (75) DPs raise along the case sequence under which they are embedded. The height to which they raise is language specific.
- (76) Case suffixes, preposition and postpositions are all the spell-out of case layers.
- (77) Only cases that are adjacent in the case sequence may be syncretic.
- (78) The lower part of a KP* may be attracted by a case selecting head 'S-k'. The peeled part is spelled out as (part of) a lexical item.

2.3 Conclusion

In this chapter, I have introduced the basic hypotheses and the apparatus of Nanosyntax as well as Caha (2009)'s nanosyntactic theory of case. I have focused the discussion on the concepts and results that I will be using in the following chapters. While the core empirical theme of the thesis is the study of direct object marking in Hungarian, the nanosyntactic perspective introduced in this chapter will also prove useful to lay the foundations of a new view on differential object marking and on the expression of nominal possession in Hungarian and English.

3 Hungarian data

3.1 Introduction

The aim of this chapter is to present the properties of the Hungarian verbal system that will be relevant for the following chapters. I first present the morphological makeup of finite verbs in the definite and in the indefinite conjugations. Then, I discuss in some details the distribution of these two paradigms. I will conclude that the definite conjugation does not only appear in the presence of a definite direct object but also in the presence of some indefinite ones.

3.2 Components of the finite verb

The verbal root of a Hungarian finite verb may be suffixed by various morphemes. Closest to the root are the derivational morphemes. These are followed by suffixes which indicate tense or mood (T/M). Then, a direct object marker may occur, followed by markers which encode the person and the number of the subject. This gives a Hungarian finite verb the template in (1). An example is provided in (2).

(1) verbal root - deriv. morphemes - T/M - DO marker - person of S - number of S

(2) (Ti) olvas-gat-t-á-t-ok őket.¹
 you_{PL} read-FREQ-PAST-DOmarker-2-PL them
 ‘You read them now and then.’

In this work, my focus is on the direct object marker, which is realized by *-á-* in (2). Its interaction with the subject person markers will also be discussed. I mention the tense/mood suffixes when this proves relevant for the discussion but will not discuss them in details. I will not be concerned with the derivational morphemes.

3.3 Two conjugations

Hungarian finite verbs agree in person and number with their nominative subjects but there are two conjugation paradigms: the “indefinite conjugation” and the “definite conjugation” (Rounds 2001: 23). Table 4 provides a sample of these two conjugations in the present indicative with the verbs *ad* ‘give’ and *kér* ‘ask.for’. The second person singular indefinite suffix *-Vl*² is attached instead of *-Vsz* on verbs ending in a sibilant such as *hoz* ‘bring’ (more detailed paradigms of personal endings are provided in the appendix in section 3.5). Note that there is no overt marker indicating tense and mood in the present indicative, thus the personal endings suffix directly onto the verbal stem.

¹ Subject pronouns are dropped, unless they are focused or contrasted. Similarly, singular 3rd person direct object pronouns are only overt in cases of emphasis. Singular 1st and 2nd person direct objects may be dropped if their referent is clearly identifiable from the context. Plural direct object pronouns of all persons must usually be overt (Törkenczy 2002: 161-162). For an analysis of these facts in terms of *pro*-drop, see Marác (1991: 87-95).

² The letter *-V-* stands for the linking, suffix-initial vowel, whose presence and form depends on vowel harmony and vowel lowering (Siptár & Törkenczy 2000: 214-264). I present these phonological phenomena later when they prove relevant for the discussion. Linking vowels are pervasive in Hungarian. There is no consensus in the literature about whether they belong to the stem, to the suffix or whether they are independent entities (Siptár & Törkenczy 2000: 219, fn 15; Kálmán 2009: 9-13). Throughout this thesis, I follow Siptár & Törkenczy (2000) and Keresztes (1999: 35) and assume that they are part of the suffix.

Table 4: Indefinite and definite conjugations - present indicative (adapted from Rounds 2001: 27, 29)

phi-features of the subject		present indicative			
number	person	indefinite conjugation	definite conjugation	indefinite conjugation	definite conjugation
singular	1	ad-ok	ad-om	kér-ek	kér-em
	2	ad-sz / hoz-ol	ad-od	kér-sz	kér-ed
	3	ad	ad- ja	kér	kér- i
plural	1	ad-unk	ad-juk	kér-ünk	kér-jük
	2	ad-tok	ad- játok	kér-tek	kér- itek
	3	ad-nak	ad-ják	kér-nek	kér-ik

Roughly, the endings of the definite conjugation (also called “objective conjugation”) are used when a finite verb takes a definite direct object, as illustrated in (3). The indefinite conjugation (also called “subjective conjugation”) is used when a finite verb takes no direct object, such as in (4) and (5) or an indefinite one, such as in (6).

- (3) (Én) ismer-em a lány-t.
I know-1.SG.DEF the girl-ACC
‘I know the girl.’
- (4) a. (Én) fut-ok.
I run-1.SG.INDEF
‘I run / am running.’
b. (Én) megy-ek.
I go-1.SG.INDEF
‘I go / am going.’
- (5) (Mi) rámutat-un-k a jelzőtáblá-ra.
we point-1-PL.INDEF the sign-SUBL
‘We point to the sign.’
- (6) (Én) ismer-ek egy lány-t.
I know-1.SG.INDEF a girl-ACC
‘I know a girl.’

I present the distribution of the two conjugations in more details in the following section. For now, I wish to draw the attention on two forms of the paradigms in Table 4: the 3rd person singular and the 2nd person plural forms. In these forms, the definite conjugation

displays a morpheme, *-ja* or *-i*, which is absent in the indefinite conjugation.³ As the endings of the definite conjugation show up when a finite verb takes a definite direct object, *-ja* and *-i* are usually said to encode the definiteness of the direct object (Coppock & Wechsler 2012; Den Dikken 2006: 11; É. Kiss 2002: 171, 2005: 1). I follow this view and will gloss these morphemes as ‘DEF’.⁴ Examples showing the distribution of the DEF-marker are given in (7) and (8). I use the verb *ismer* ‘know’, with which the allomorph of the DEF-marker is *-i*. Observe that the number of the direct object does not influence the form of the DEF-marker: in (7a), for instance, the same marker *-i-* appears, regardless of whether the direct object is singular or plural.

- (7) a. (Ti) ismer-**i**-t-ek a lány-t / a lány-ok-at.
 you_{PL} know-DEF-2-PL the girl-ACC / the girl-PL-ACC
 ‘You know the girl / the girls.’
 b. (Ti) ismer-t-ek egy lány-t / lány-ok-at.
 you_{PL} know-2-PL a girl-ACC / girl-PL-ACC
 ‘You_{PL} know a girl/girls.’
- (8) a. János ismer-**i** a lány-t. / a lány-ok-at.
 János know-DEF the girl-ACC / the girl-PL-ACC
 ‘János knows the girl / the girls.’
 b. János ismer egy lány-t.
 János know a girl-ACC
 ‘János knows a girl.’

In the next section, I present the distribution of the definite and of the indefinite conjugation in more details.

3.4 Distribution of the two conjugation paradigms

I said above that the definite conjugation is used with finite verbs taking definite direct objects and that the indefinite conjugation occurs when a finite verb takes no direct object or an indefinite one. This is however a simplified description. The question of the distribution of the two conjugation paradigms is notoriously a complex matter (Bárány

³ The appearance of *-ja* or *-i* is also ruled by vowel harmony. These forms are thus two allomorphs of the same morpheme. This will be discussed in details in Chapter 4.

⁴ The presence of the DEF-marker is less clear in the other personal endings of the definite paradigm. I will come back to this in Chapter 4.

2012; Bartos 2001; Coppock 2013; Coppock & Wechsler 2012; Marác 1991: 81-83; Szabolcsi 1992: 39-40). In this section, I present data, mostly coming from the literature, which illustrate this difficulty. The matter is further complicated by the fact that the notion of definiteness is fuzzy (Abott 2005; Heim 1982; Lyons 1999; Marác 1991: 81; Milsark 1974: 194; Puskás & Ihsane 2001: 1-3). To facilitate the discussion, in what follows, I define definiteness on the basis of the definiteness-effect occurring in existential *there*-sentences (Abott 2005; Leonetti 2008; Milsark 1974: 195-210, 1977; Szabolcsi 1986, among many others). That is, I consider a noun phrase to be indefinite if it can occur in existential *there*-sentences. Conversely, I call 'definite' noun phrases whose presence in this construction leads to ungrammaticality. I will conclude, in accordance with Coppock (2013), that while definite direct objects usually occur with the definite conjugation, some indefinite ones also do.

3.4.1 Indefinite direct objects

As is well-known since at least Milsark (1974), nouns preceded by determiners such as *a*, *some*, *many*, *several*, *a few* as well as numerals can appear in *there*-expletive constructions (9). As such, they are considered indefinites.

- (9) a. There is a flower in the vase.
 b. There are some/ many / several / a few / three flowers in the vase.

Such noun phrases can also appear in the Hungarian counterparts of English existential *there*-sentences (Bárány 2012: 12, Szabolcsi 1992: 36). This is shown in (10).

- (10) a. Van egy könyv. / Van-nak könyv-ek.
 is a book is-3PL.INDEF book-PL
 'There is a book.' / 'There are books.'
 b. Van néhány / sok / több könyv az asztal-on.
 is some/a few / many / several book the table-SUPERESS
 'There are some / a few / many / several books on the table.'
 c. Hat ló van az istálló-ban.
 Six horse is the stable-INESS
 'There are six horses in the stable.'

Rounds (2001: 90), glosses are mine

As shown in (11), when used as direct objects, these noun phrases co-occur with the indefinite conjugation.

- (11) a. Ismer-t-ek / *ismer-i-t-ek egy lány-t.
 know-2-PL know-DEF-2-PL a girl-ACC
 'You_{PL} know a girl.'
- b. Néhány / sok /több / lány-t lát-ünk. / *lát-ük.
 some/a few/ many / several /girl-ACC see-1.PL.INDEF /see-1.PL.DEF
 'We see some/ a few / many /several / girls.'
- c. Hét cápá-t lát / *lát-ja a medencé-ben.
 seven shark-ACC see.3.SG.INDEF / see-DEF the pool-INESS
 'He saw seven sharks in the pool.'

adapted from Törkenczy (2002: 70)

Indefinite pronouns, such as *valaki* 'someone', *valami* 'something' and *semmi* 'nothing', can also appear in *there*-expletive sentences (12). These pronouns co-occur with the indefinite conjugation (13).

- (12) a. Van valaki / valami a ház előtt.
 is someone / something the house in.front.of
 'There is someone / something in front of the house.'
- b. Nincs semmi a ház előtt.
 NEG nothing the house in.front.of
 'There is nothing in front of the house.'
- (13) a. Lát-ok / *-om valaki-t / valami-t.
 see-1.SG.INDEF / -1.SG.DEF someone-ACC / something-ACC
- b. Nem ismer-ek / *-em semmi-t.
 NEG know-1.SG.INDEF / -1.SG.DEF nothing-ACC
 'I don't know anything.'

adapted from Coppock & Wechsler (2012: 19, their (60))

These examples show that noun phrases which co-occur with the indefinite conjugation are considered indefinite on the basis of the existential *there*-sentences test.

Note that specific indefinites can also appear in existential sentences ((14) and (16)). As shown in Bartos (2001: 315) and Coppock & Wechsler (2012: 17), they are only compatible with the indefinite conjugation (15), (17).

- (14) Van egy görög énekes a szobá-ban. Máriá-nak hív-ják.
 is a Greek singer the room-INESS Maria-DAT call-3PL.DEF
 'There is a Greek singer in the room. Her name is Maria.'

- (15) Minden nap egy görög énekes-t hallgatt-ak /*-ák.
 every day a Greek singer-ACC listened-3PL.INDEF/-3PL.DEF
 Máriá-nak hív-ják.
 Maria-DAT call-3PL.DEF
 ‘Every day, they listened to a Greek singer. Her name is Maria.’

Coppock & Wechsler (2012: 17, their (52))

- (16) Van egy bizonyos könyv az asztal-on.
 is a particular book the table-SUPERESS
 ‘There is a particular book on the table.’

- (17) Egy bizonyos könyv-et olvas-ok /*-om.
 a certain book-ACC read-1.SG.INDEF / *-1.SG.DEF
 ‘I read/am reading a particular book.’

Let us now turn to noun phrases that cannot appear in existential *there*-sentences and that are therefore considered definite.

3.4.2 Definite direct objects

Nouns preceded by the definite article, demonstrative determiners and quantifiers such as *each*, *most* and *both* are ungrammatical in existential *there*-sentences. The same holds for possessive DPs, proper nouns, personal and demonstrative pronouns (Milsark 1974: 195, Diesing 1992: 59, 94). This is shown for English in (18) and for Hungarian in (19). These noun phrases and pronouns are thus considered definite.

- (18) a. *There is the dog /that dog/each dog/ John’s dog/ John / he / him / that
 in the room

- b. *There are most / both dogs in the room.

adapted from Milsark (1974: 195, his (64), (65))

- (19) a. *Van a /valamennyi kutya a szobá-ban.
 is the / each dog the room-INESS
 b. *Van az a kutya a szobá-ban.
 is that the dog the room-INESS
 c. *Van a legtöbb kutya a szobá-ban.
 is the most dog the room-INESS
 d. *Van mindkét kutya a szobá-ban.
 is both dog the room-INESS

- e. *Van János kutya-já.
 is János dog-3.SG
 f. *Van János.
 is János
 g. *Van ő / őt / az / az-t.⁵
 is he / him / that / that-ACC

As shown in (20), these definite noun phrases and pronouns co-occur with the definite conjugation in Hungarian.

- (20) a. Ismer-i-t-ek / *-t-ek a lány-t / János-t / János kutya-já -t.
 know-DEF-2-PL/2-PL.INDEF the girl-ACC János-ACC János dog-3.SG-ACC
 ‘You_{PL} know the girl / János / János’ dog.’
 b. Lát-om / *lát-ok ez-t / az-t (a háza-t).
 see-1.DEF.SG / see-1.SG.INDEF this-ACC / that-ACC (the house-ACC).
 ‘I see this / that (house).’

Rounds (2001: 24), glosses are mine

- c. Eltitkol-om / *-ok valamennyi találkozás-t.
 keep.secret-1.SG.DEF / -1.SG.INDEF each meeting-ACC
 ‘I keep each meeting secret.’

Coppock & Wechsler (2012: 24, their (81))

- d. Ismer-i-t-ek / *ismer-t-ek mindkét / a legtöbb lány-t.
 know-DEF-2-PL / know-2-PL.INDEF both / the most girl-ACC
 ‘You_{PL} know both/ most girls.’
 e. Ismer-i-t-ek / *ismer-t-ek őt / őket.
 know-DEF-2-PL / know-2-PL.INDEF him / them⁶
 ‘You_{PL} know him / them.’

⁵ *Van ő* and *van az* are grammatical in a very limited range of contexts such as list readings. The same holds in English (i). I leave this aside here.

(i) Context: There were five of us at the party.

There was him, her, John, Mari and Peter.

⁶ There is no gender marking in Hungarian. The 3rd person subject pronouns *ő* ‘(s)he’ and *ők* ‘they’ can only refer to human beings. The accusative 3rd person singular form *őt* mostly refers to humans as well. Its plural counterpart *őket* can however take animates as well as inanimate referents (Rounds 2001:123). To simplify, I will always gloss *ő* and *őt* by the masculine English forms *he* and *him*.

The data in sections 3.4.1 and 3.4.2 suggest that the distribution of the definite and the indefinite conjugations is ruled by the definiteness and by the indefiniteness of the direct object respectively. However, I show in the following section that the definite conjugation can also occur in the presence of certain indefinite direct objects.

3.4.3 The definite conjugation with indefinite direct objects

3.4.3.1 Possessed indefinites

In Standard Hungarian, all direct object possessive noun phrases co-occur with the definite conjugation, even when the possessee and/or the possessor are interpreted as indefinite (Bárány 2012: 7; Szabolcsi 1992: 39, 43). Yet, even possessed indefinites can appear in the Hungarian counterpart of English existential *there*-sentences. Example (21a) shows a possessee preceded by the indefinite quantifier *néhány* ‘some’ / ‘a few’ occurring in the existential construction. This possessive noun phrase is thus indefinite. Example (21b) shows that this same indefinite noun phrase appears with the definite conjugation when it is used as a direct object.

- (21) a. Van *néhány könyv-em* itt Pest-en.
 is some book-POSS.1.SG here Pest-in
 ‘There are some of my books here in Pest.’

Coppock (2013: 4, her (17))

- b. Olvas-om *-ok *néhány könyv-em-et*.⁷
 read-1.SG.DEF / -1.SG-INDEF some book-1.SG-ACC
 ‘I read some of my books.’

Similarly, possessed indefinites preceded by the indefinite determiner *egy* ‘a’ can appear in existential sentences and co-occur with the definite conjugation. This is shown in (22).

- (22) a. Van *egy szomszéd-ja* Mari-nak.
 is a neighbour-3.SG Mari-DAT
 ‘There is a neighbour of Mari’s.’

⁷ Coppock & Wechsler (2012: 30) claim that with possessed nouns preceded by the quantifier *néhány*, the indefinite conjugation is also possible (i). Some of my informants categorically disagree with this claim. Similarly to Bárány (2012: 10) and Szabolcsi (1992: 43), other informants say that the use of the indefinite conjugation with *néhány* is possible in certain dialects but not in Standard Hungarian.

(i) Ismer-ek *néhány titk-od-at*.
 know-1.SG-INDEF some secret-2.SG-ACC
 ‘I know some secrets of yours.’

Coppock & Wechsler (2012: 30, their (98))

In the main text, I represent the acceptability of examples in Standard Hungarian.

- b. Mari-nak szeret-ed / *-sz egy szomszéd-já-t.
 Mari-DAT love-2.SG.DEF / -2.SG.INDEF a neighbour-3.SG-ACC
 'You love some neighbour of Mari's.'

The following examples illustrate the same point with indefinite pronominal possessors (23) and with indefinite nouns preceded by a numeral (24).

- (23) a. Van valaki-d /valami-d.
 is someone-2.SG / something-2.SG
 'There is someone/something belonging to you_{SG}.'
- b. Lát-om / *lát-ok valaki-d-et. / valami-d-et.
 see-1.SG.DEF / see-1.SG.INDEF someone-2.SG-ACC something-2.SG-ACC
 'I see someone / something belonging to you_{SG}.'
- adapted from Bartos (2001: 313, his 4b))
- (24) a. Van öt ember-ed.
 is five man-2.SG
 'There are five of your men.'
- b. Lát-om / *lát-ok öt ember-ed-et.
 see-1.SG.DEF / see-1.SG.INDEF five man-2.SG-ACC
 'I see five of your men.'
- Bartos (2001: 313, his (3b))

As pointed out by É. Kiss (2002: 173), even when both the possessor and the possessee are indefinite, direct object possessed nouns co-occur with the definite conjugation (25b).

- (25) a. Van egy diák-nak két dolgozat-a jutalomra méltónak.
 is a student-DAT two paper-3.SG of.prize worthy
 'There are only one student's two papers-3.SG worthy of a prize.'
- b. Csak egy diák-nak két dolgozat-á-t talált-a / *talált-ø
 only one student-DAT two papers-3.SG-ACC found-DEF / found-INDEF
 jutalomra méltónak a zsűri.
 of.prize worthy the jury
 'The jury found only one student's two papers worthy of a prize.'
- adapted from É. Kiss (2002: 173, her (50))

These examples have shown that indefinite possessed noun phrases co-occur with the definite conjugation. In the next section, I show that another type of indefinites also co-

occur with the definite conjugation: the accusative interrogative pronoun *melyiket* ‘which’ and its relative counterpart *amelyiket* ‘which’.

3.4.3.2 Interrogative and relative pronouns

As observed in Marác (1991: 82) and Coppock (2013: 5), the indefinite interrogative pronouns *mit* ‘what’ (26a) and *kit* ‘who’ (27a) occur with the subjective conjugation while the indefinite interrogative pronoun *melyiket* ‘which’ triggers the use of the definite conjugation (26b, 27b).

- (26) a. *Mi-t* *kér-sz* / *-ed ?
 what-ACC want-2.SG.INDEF / -2.SG.DEF
 ‘What would you like?’
 b. *Melyik-et* *kér-ed* / *-sz?
 which.one-ACC want-2.SG.DEF / 2.SG.INDEF
 ‘Which one would you like?’

adapted from Coppock (2013: 5, her (21), (23))

- (27) a. *Ki-t* *lát-ok* / *-om ?
 who-ACC see-1.SG.INDEF / -1.SG.DEF
 ‘Who am I seeing?’
 b. *Melyik-et* *lát-om* / *-ok ?
 Which.one-ACC see-1.SG.DEF / -1.SG.INDEF
 ‘Which one I am seeing?’

adapted from Marác (1991: 82, his (5c, c’))

The same difference occurs with relative pronouns. For instance, the relative pronouns *amit* ‘that’ co-occurs with the indefinite conjugation while the pronoun *amelyiket* ‘which’ occurs with the definite conjugation.

- (28) a. *Vesz-em* *a könyv-et, ami-t* *kér-t-él* / *-ed.
 buy-1.SG.DEF the book-ACC that-ACC ask-PAST-2.SG.INDEF / -2.SG.DEF
 ‘I buy the book you asked for.’
 b. *Vesz-em* *a könyv-et, amelyik-et* *kér-t-ed.* / *-él
 buy-1.SG.DEF the book-ACC which-ACC ask-PAST-2.SG.DEF / -2.SG.INDEF
 ‘I buy the book you asked for.’

Marác (1991: 82-83), citing Comrie (1975), proposes that this pattern arises for the following reason: (a)*melyiket* presupposes the existence of a set known by the discourse participants and the referent of (a)*melyiket* belongs to this set. This presupposition does not

arise in the case of *kit* or *mit*.⁸ I suggest that the fact discussed above that possessed indefinites also occur with the definite conjugation can be understood in similar terms: in each case, the referent is part of a specific set, namely the set referred to by *the neighbours of Mari* in (22b) and the set of papers written by students in (25b), for instance.⁹

These examples have shown that not all noun phrases which are considered indefinite on the basis of the definiteness-effect test also co-occur with the indefinite conjugation. The question now arises whether there are definite direct objects which co-occur with the indefinite conjugation. I discuss this point in the following section.

3.4.4 The indefinite conjugation with definite direct objects

There are two types of direct objects that are definite but co-occur with the indefinite conjugation: 1st and 2nd person pronouns and nouns preceded by the quantifier *minden* ‘every’.

3.4.4.1 1st and 2nd person personal pronouns¹⁰

1st and 2nd person personal pronouns cannot appear in existential *there*-sentences. They are definite.¹¹

(29) a. *there is I / me in the room.

b. *Vagyok én / van engem a szobá-ban.
am I / is me the room-INNESS

Yet, they co-occur with the indefinite conjugation (Törkenczy 2002: 70), as shown in (30).

⁸ As is well known, Pesetsky (1987: 107-108) observes that certain syntactic properties of English *which* differ from those of *what* and *who*. Pesetsky also relates these differences to the ‘D(iscourse)-linking property of *which*, i.e. the fact that *which* implies the presence in the discourse context of a set to which the referent of *which* belongs.

⁹ Not all indefinite noun phrases whose referents belong to a given set co-occur with the definite conjugation, though. As observed in Coppock (2013: 5), the partitive direct object in (i) co-occurs with the indefinite conjugation.

(i) János olvas-ø / *-a négy-et a könyv-ek közül ?
János read-3.SG.INDEF / *3.SG.DEF four-ACC the book-PL from.among
‘János read four of the novels.’

As pointed out by Coppock (2013: 5), however, it is possible that the direct object in (i) is the numeral marked for accusative case, *négyet*, rather than the whole partitive phrase.

¹⁰ Reflexive and possessive pronouns of all persons co-occur with the definite conjugation. I discuss this point in Chapter 4.

¹¹ Just like examples (18) and (19) (cf. footnote 5), *there is me* and *vagyok én* are grammatical in contexts such as list readings.

- (30) János ismer / *-i engem / téged / minket / titeket.
 János know.3.SG.INDEF / -DEF me_{ACC} you_{SG.ACC} us_{ACC} you_{PL.ACC}
 'János knows me/you/us.'

In section 5.4.6 of Chapter 5, I propose that this fact does not hinder the idea that the definite conjugation occurs with all definite direct objects.

3.4.4.2 Every

As shown in (31), the quantifier *every* cannot occur in existential sentences. As pointed out by Coppock (2013: 3), this is the case for Hungarian *minden* 'every' as well (32).

- (31) *There is every dog in the room. Milsark (1974: 195, his (65))
 (32) *Van minden könyv.
 is every book Coppock (2013: 3, her (12))

This indicates that nouns preceded by *every* are definite. Their co-occurrence with the indefinite conjugation (33a) is therefore surprising.¹² All the more so since the definite conjugation occurs in the presence of the near synonym of *minden* 'every', *valamennyi* 'each' (33b).

- (33) a. Olvas-ok / *-om minden lével-et.
 read-1.SG.INDEF / -1.SG.DEF every letter-ACC
 'I read every letter.'
 b. Olvas-om / *-ok valamennyi lével-et.
 read-1.SG.DEF / -1.SG.INDEF each letter-ACC
 'I read each letter.'

As explained in Beghelli (1995: 73, 161) and Beghelli & Stowell (1997), however, *each* is intrinsically specified for distributivity but *every* is unspecified for this feature (see also

¹² Note that when *minden* is preceded by the definite article *a* 'the', the definite conjugation arises (i).

(i) Eléget-em / *Eléget-ek a től-ed kapott minden level-et.
 burn-1.SG.DEF / *burn-1.SG.INDEF the from-2.SG received every letter-ACC
 'I burn every letter received from you.' Bartos (2001: 314, his (6b))

Also note that, though *minden* co-occurs with the indefinite conjugation (33), when it modifies a possessee, the definite conjugation is used (but the use of the indefinite conjugation is possible in some dialects (Bartos 2001: 314), cf. footnote 7).

(ii) Ismer-em / *-ek minden titk-od-at.
 know-1.SG.DEF / 1.SG.INDEF every secret-2.SG-ACC
 'I know your every secret.' adapted from Bartos (2001: 314, his (6a))

Tunstall 1998: 98-104).¹³ I therefore suggest that distributivity might also play a role in the occurrence of the definite paradigm.¹⁴

In the following section, I discuss a last type of direct objects: complement clauses.

3.4.5 Complement clauses

Matrix transitive verbs whose direct object is a non-finite complement clause show up in the indefinite conjugation (34) (Törkenczy 2002: 71).

- (34) János akar /*-i [tanul-ni angol-ul].
János want.3.SG.INDEF /-DEF learn-INF English-ESS
'János wants to learn English.'

With finite complement clauses, on the other hand, the matrix verb occurs with an ending of the definite conjugation (35) (Törkenczy 2002: 72).¹⁵

- (35) János remél*(-i), hogy Mari Szeged-en tartózkodik.
János hope-3.SG.DEF that Mari Szeged-SUPERESS reside
'János hopes that Mari resides in Szeged.'

¹³ I thank Karen De Clercq for providing me with these references.

¹⁴ The same suggestion is made in Bárány (2012: 13). According to Tunstall (1998: 98-104), both *every* and *each* are distributive but the latter is more distributive than the former. The use of *each* in example (33b), for instance, requires that for each of the letters there be a subevent of reading. That is, the letters must be read one by one. This requirement does not apply to the use of *every*, for which partial distributivity is sufficient. In example (33a), for instance, if three letters are read one at a time but two others are read simultaneously, the use of *every* is possible. How this relates to definiteness exactly is not clear to me. Note however Tunstall (1998: 120-121) 's following suggestion: the set to which the referent of the noun phrase preceded by *each* belongs must be contextually 'given'. This is not the case for *every* NPs. This recalls the difference between *what* and *which* discussed in section 3.4.3.2.

¹⁵ Observe that factivity is not at stake in the use of the definite conjugation with finite complement clauses. As pointed out to me by Rachel Nye (p.c), Melvold (1991) argues that complements of factive predicates share semantic and syntactic properties with definite NPs while complements of non-factive predicates patterns with indefinite NPs (for discussion of Melvold's claim and further references, see Haegeman & Ürögdi 2010: 132-136). In Hungarian, however, regardless of whether they are the complement of a factive matrix predicate or of a non-factive one, finite clauses all co-occur with the definite conjugation. For instance, whether the matrix verb is factive (e.g. *regret*, *know*) or non-factive (e.g. *claim*, *believe*, *hope*), the definite conjugation is always used, as shown in (i).

(i) John sajnál-ja / tud-ja / állít-ja / hisz-i, hogy telefonál-t Mari-nak.
John regret-DEF / know-DEF / claim-DEF / believe-DEF that phone-PAST Mari-DAT
'John regrets / knows / claims / believes that he called Mari.'

Bresnan (1972: 69ff) argues that finite clauses are more definite (and more specific) than non-finite ones (see also Partee (1984) who draws parallels between the notions of tense and definiteness). The idea that the definiteness of the complement is responsible for the occurrence of the definite conjugation on the verb is thus in accordance with the data in (34) and (35).¹⁶

In the next section, I provide a summary of the distribution of the indefinite and definite conjugations.

3.4.6 Summary: distribution of the two conjugation paradigms

In this chapter, we have seen that all direct objects that are definite according to the definiteness-effect test co-occur with the definite conjugation (except 1st and 2nd person personal pronouns, to which I return in Chapter 5). We have also seen that the use of the definite conjugation extends to verbs taking certain indefinite direct objects: possessed indefinites, the interrogative pronoun *melyiket* ‘which_{ACC}’ and its relative counterpart *amelyiket* ‘which_{ACC}’. In what follows, for sake of simplicity, I will be saying that the definite conjugation arises on a finite verb as a consequence of the definiteness of its direct object. The reader should however keep in mind that I understand definiteness in broad sense, i.e. in a way that includes the idea of restricted set and, possibly, the notion of distributivity.¹⁷

Table 5 summarizes the distribution of the definite and indefinite conjugations in Standard Hungarian.

¹⁶ I will not deal with the variation in paradigm use which occurs when arguments or adjuncts base-generated within the embedded clause undergo A-bar movement into the matrix clause. I refer the interested reader to Bárányi (2012: 8-10), Coppock & Wechsler (2012: 25-27), Den Dikken (2004: 478-488), Jánosi (in preparation) for discussion.

¹⁷ The issue of which direct objects trigger the use of the definite conjugation becomes even more complex once diachronic and cross-linguistic data are taken into consideration. First, at different stages of Hungarian, which types of direct objects co-occur with the definite conjugation slightly vary (e.g. Károly 1972: 98, Künnap 2008: 182). When we look at languages historically related to Hungarian, the principles which rule the distribution of the definite and the indefinite conjugation also vary (Künnap 2008: 181-182; see for instance, Kertvély (2005) for Tundra Nenets and Nikolaeva (1999, 2001) for Northern Ostyak).

Table 5: Distribution of the indefinite and definite conjugations

Type of verbal complement	Indefinite conjugation	Definite conjugation
no direct object	v	x
indefinite noun phrases: 'a' / 'some' / 'many' / 'several' / 'a few' / 'three' NP	v	x
indefinite pronouns: 'something', 'someone', 'nothing'	v	x
interrogative and relative pronouns: 'what', 'who'	v	x
1 st / 2 nd person singular and plural accusative personal pronouns	v	x
'every' NP	v	x
non-finite complement clauses	v	x
definite noun phrases: 'the' / 'that' / 'each' / 'most' / 'both' NP ; proper nouns; definite possessed nouns	x	v
definite pronouns: 3 rd person accusative singular and plural personal pronouns, demonstrative pronouns	x	v
possessed indefinites	x	v
interrogative and relative pronouns: 'which'	x	v
finite complement clauses	x	v

In Chapters 4 and 5, I develop an account of the distribution of the definite conjugation with personal pronouns. In Chapter 6, I extend the account to full DPs and complement clauses.

3.5 Appendix: personal endings

In the following tables, I provide the endings of the indefinite and definite conjugations in the four synthetic tenses in Hungarian.^{18, 19} The present tense indicative is unmarked, the

¹⁸There is a personal ending which I have not mentioned yet and which I do not include in Tables 6 and 7: the morpheme *-lak/-lek* which appears exclusively when the subject is 1st person singular and the direct object is 2nd person of any number (i).

(i) (Én) lát-lak (téged) / titeket.

I see-LVK you_{SG/PL}

past indicative is encoded by the morpheme *-t* or one of its allomorphs, *-tt/-ott/-ett/-ött*. The morpheme *-j* encodes the subjunctive and the imperative mood and the morpheme *ana-* / *-ene-* encode the non-past conditional mood.²⁰ The data is based on Rounds (2001: 26-50) and Törkenczy (2002: 73-102).

The vowels linking the personal suffixes to the stems are in italic. The diacritic ´ indicates that the vowel is lengthened.²¹

Table 6: Endings of the indefinite and definite conjugations (1)

phi-features of the subject		present indicative: -ø-		past indicative: -(o/e/öt)t-	
number	person	indefinite conjugation	definite conjugation	indefinite conjugation	definite conjugation
singular	1	-o/e/ök	-o/e/öm	-a/em	-a/em
	2	-a/esz -o/e/öl	-o/e/öd	-ál / -él	-a/ed
	3	-ø	-ja / -i	-ø	-a / -e
plural	1	-unk -ünk	-juk -jük	-unk / -ünk	-uk / -ük
	2	-otok/etek/ötök	-játok -itek	-atok / -etek	-átok -étek
	3	-anak / -enek	-ják -ik	-ak / -ek	-ák -ék

Bartos (2001: 312, fn 2), Den Dikken (2004: 448) and É. Kiss (2002: 54), among others, propose that *-l-* marks the 2nd person of the direct object and that *-k* references the 1st person singular subject. The reason for this is that in the indefinite paradigm, these two markers spell out the features 2.SG and 1.SG respectively. In this work, I provide an account of the appearance of the direct object's definiteness marker. I leave for further research an account of the presence of the 2nd person marker *-l* in (i).

¹⁹ The future tense and the past conditional are formed periphrastically (for details, see Rounds 2001: 47, 50).

²⁰ According to Törkenczy (2002: 86), the allomorphs of the conditional morpheme are *-n/-an/-en*. Here, I follow Rounds (2001: 44), who gives *na/ne*.

²¹ I focus in this study on regular verbs, leaving aside the few irregular verbs such as *vesz* 'take'/'buy' and *megy* 'come' and the so called *-ik*-verbs. For the paradigms of these verbs, see Rounds (2001: 285-292) and Törkenczy (2002: 116-118).

Table 7: Endings of the indefinite and definite conjugations (2)

phi-features of the subject		subjunctive/imperative: -j-		non-past conditional: -ana- / -ene-	
number	person	indefinite conjugation	definite conjugation	indefinite conjugation	definite conjugation
singular	1	-a/ek	-a/em	-'k	-'m
	2	-á/él -ø	-a/ed	-'l	-'d
	3	-on/en/ön	-a / -e	-ø	-'
plural	1	-unk / -ünk	-uk / -ük	-'nk	-'nk
	2	-atok / -etek	-átok -étek	- 'tok / -'tek	- 'tok / -'tek
	3	-anak / -enek	-ák -ék	-'nak/ -'nek	-'k

4 Direct object marking with pronouns: analysis (part 1)

In this chapter, I argue that the definiteness marker, such as *-i* in (1), which appears on a finite verb in the presence of a 3rd person direct object personal pronoun, is base-generated within that pronominal direct object.

- (1) Ismer-*i*-t-ek / *ismer-t-ek őt / őket.
know-DEF-2-PL / know-2-PL.INDEF him / them
'You_{PL} know him / them.'

I proceed as follows. In sections 4.1.1 and 4.1.2, I show that Hungarian accusative and dative pronouns usually contain two morphemes which encode the phi- an definiteness features of their referent. There is however one puzzling exception to this pattern: 3rd person accusative pronouns lack a definiteness morpheme. A definiteness morpheme thus appears to be missing within these pronouns. In section 4.2, I observe that, if it was not missing, this morpheme would be morphologically identical to the definiteness marker, which references the definiteness of the direct object on the finite verb. I deduce that the definiteness morpheme is missing in 3rd person accusative pronoun because it is spelled out on the finite verb instead. The role of section 4.3 is to expand the data set in order to provide two pieces of evidence in favour of this conclusion. First, the set of allomorphs of the morpheme missing within 3rd person accusative pronouns is identical to the set of allomorphs which spell out DEF on the finite verb. This indicates that the missing definiteness morpheme and the DEF-marker are one and the same entity. Second, while pronouns which trigger the appearance of the DEF-marker on the finite verb lack a DEF-morpheme, pronouns which are complete do not trigger the appearance of the DEF-

marker on the finite verb. In other words, the lack of a DEF-morpheme within a pronoun goes hand in hand with the presence of a definiteness marker on the finite verb. Conversely, the presence of a DEF-morpheme within a pronoun correlates with the absence of a definiteness marker on the finite verb. In section 4.3.3, I discuss possessive and reflexive pronouns, which appear to be counterexamples to this generalization. I show that they pattern like full DPs and not like pronouns and that they are thus expected not to fall under this generalization.

4.1 Morphological makeup of accusative and dative pronouns

4.1.1 Accusative pronouns

In this section, I compare the morphological makeup of 1st and 2nd person accusative pronouns to their 3rd person counterparts. I show that the former display a person morpheme that is absent from the latter.

The paradigm of accusative pronouns is introduced in Table 8.

Table 8: Accusative personal pronouns (Rounds 2001: 122)

Number	Person	Accusative personal pronoun	Translation
Singular	1	engem(et)	‘me’
	2	téged(et)	‘you _{SG} ’
	3	őt / őtet ¹	‘him’
Plural	1	minket	‘us’
	2	titeket	‘you _{PL} ’
	3	őket	‘them’

In Table 9, I provide a morphological decomposition of these pronouns. Accusative pronouns consist of four main parts: the first is a set of two morphemes which spells out the person and the number of the referent of the pronoun. The presence of a second part is shown by the morpheme *-g-* in 1st and 2nd singular person pronouns.² The third part

¹ The form *őtet* is reported as colloquial by Moravcsik (2003: 145).

² The status of *-g-* in the first and second person singular accusative pronouns is not at all clear. For the following reasons, it is tempting to analyze it as a case morpheme:

(a) in Standard Hungarian, it is present only in those pronouns where the regular accusative suffix *-t* is absent.
(b) it occurs between the two sets of phi-markers, just like the case morphemes of oblique personal pronouns (as we will see in section 4.1.2)

contains a second set of morphemes which encode the phi-features of the referent of the pronouns. As can be seen in the first column of PART 3, the cells corresponding to the 3rd person is empty. Anticipating on the discussion in section 4.4, I propose that pronominal 3rd person is not person but definiteness. I will therefore say that what corresponds to a person marker in 1st and 2nd person pronouns is a DEF-marker in 3rd person pronoun.³ Finally, the fourth part is dedicated to the accusative case marker -Vt.

Table 9: Components of accusative personal pronouns

Number	Person	PART 1: first set of phi-markers		PAR T 2	PART 3: second set of phi-markers		PART 4
		Person marker 1	Number marker 1		Person/ DEF marker 2	Number marker 2	
Singular	1	en		g	em		(et)
	2	té		g	ed		(et)
	3a	ő		ø			t
	3b	ő		t			et
Plural	1	m	i	ø	n	k	et
	2	t	i	ø	t	ek	et
	3	ő	ø	ø		k	et

Two hypotheses can be formulated to explain the absence of a DEF-marker 2 in 3rd person pronouns: either this marker is spelled out by a null morpheme or the structure of these pronouns it is truncated. In the next section, I introduce the paradigm of dative personal pronouns. This will enable me to provide a first piece of evidence in favour of the second hypothesis.

However, in the diachronic literature (see e.g. Abaffy 2001, Benkő & Imre 1972, Wickman 1955), no mention is made of an accusative marker containing a -g- in Old Hungarian nor in Proto-Uralic. In Benkő (1991: 364), -g- is said to derive from a former derivational suffix, probably -ŋ- and then -γ-, whose role might have been to render the stems *en-* and *te-* morphologically heavier. I thank Barbara Egedi (p.c.), to whom I owe this information. In the absence of more data, I have to leave this issue open. Den Dikken (2006: 15, fn 22) makes an interesting suggestion, though: -g- would be the left-over of *mag* ‘kernel’ which appears in reflexive pronouns. Compare (i) and (ii):

(i) en-**g**-em ‘me_{ACC}’

(ii) (én)**mag**-am ‘myself’.

I discuss the morphological makeup of reflexive pronouns in section 4.3.3.2.

³ More precisely, I will argue in section 4.4 that 1st and 2nd person markers spell out two structural layers which encode person and definiteness, respectively. I will further argue that 3rd person morphemes are the spell-out of a definiteness layer only. I also assume that the ‘Person marker 1’ in 3rd person pronouns, ő, only encodes definiteness, not person. This is however not relevant for the purposes of this chapter.

4.1.2 Dative pronouns

Table 10 displays the paradigm of dative personal pronouns.

Table 10: Dative personal pronouns (Rounds 2001: 124)

Number	Person	Dative personal pronoun	Translation
Singular	1	(én)nekem	‘for me’
	2	(te)neked	‘for you _{SG} ’
	3	(ő)neki	‘for him’
Plural	1	(mi)nekünk	‘for us’
	2	(ti)nektek	‘for you _{PL} ’
	3	(ők)nekik	‘for them’

As shown in Table 11, these pronouns are composed of three main parts: one (optional) set of morphemes spelling out the person and the number of the pronoun’s referent, an invariable case marker *nek*, and an (obligatory) second set of person and number morphemes. Of relevance here are once again the right-most person/DEF markers, which are set in bold.

Table 11: The components of dative personal pronouns

Number	Person	PART 1: first set of phi-markers		PART 2	PART 3: second set of phi-markers	
		Person marker 1	Number marker 1	Case-marker: DATIVE	Person/DEF marker 2	Number marker 2
Singular	1	(én)		nek	em	
	2	(te)		nek	ed	
	3	(ő)		nek	i	
Plural	1	(m-	i)	nek	ün	k
	2	(t-	i)	nek	t	ek
	3	(ők	ø)	nek	i	k

The morphemes which compose the third part of the 1st and 2nd person pronouns are identical to those composing the third part of accusative pronouns (modulo the epenthetic vowel *ü* in the dative 1st person plural). The difference between the third part of dative and accusative pronouns lies in the cells hosting the DEF-marker 2 of 3rd person pronouns: these cells of the dative pronouns paradigm is occupied by a morpheme, *-i*, while the same

cell of the accusative pronouns in Table 9 is empty. Taken together, the fact that the makeup of dative and accusative pronouns is similar and the fact that 3rd person is expressed by an overt morpheme in dative pronouns suggest that, in accusative pronouns, this morpheme does not simply have a null exponent: an overt morpheme should be present but goes missing. In the next section, I show that the DEF-marker 2 is absent in 3rd person accusative pronouns and that it instead shows up on the finite verb.⁴

4.2 Definiteness on the finite verb

We have just seen that the makeup of dative and accusative pronouns is similar. The fact that 3rd person dative pronouns exhibit a DEF-morpheme, *-i*, but that accusative pronouns do not is therefore puzzling. Recall from section 3.4.2 of Chapter 3 that the presence of a 3rd person accusative pronoun is signalled on verbs such as *ismer* ‘know’ by the suffix *-i* (2). That is, the DEF-suffix on the finite verb has the same form as the morpheme we would expect to find within 3rd person accusative pronouns.^{5, 6}

- (2) a. János ismer-**i** őt / őket.
 János know-DEF him / them
 ‘János knows him / them.’
 b. (Ti) ismer-**i-t-ek** őt / őket.
 you_{PL} know-DEF-2-PL him / them
 ‘You_{PL} know him / them.’

⁴ Dative and accusative pronouns differ in two other ways. The first concerns the left-most set of phi-markers. In accusative pronouns, it is always present. In dative pronouns, it is only overt in case of contrast or emphasis:

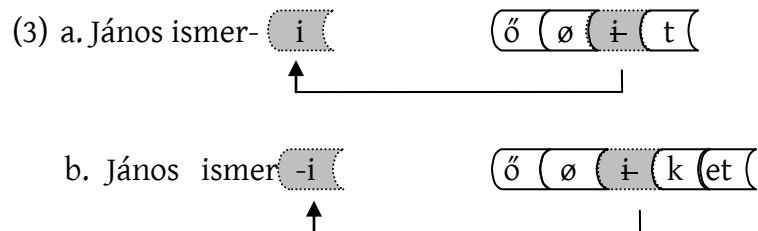
(i) Őneki ad-ok egy rózsá-t.
 To.him give-1.SG.INDEF a rose-ACC
 ‘I give a rose to HIM.’

I have not found any explanation for this fact in the literature. One thing which comes to mind is the phonological “lightness” of PART 2 in accusative pronouns: descriptively, to function as a host for the second set of phi-markers, *-g/-ø-* would need the support of the first set of phi-markers. The second difference concerns the position of the case marker. The dative case marker *nek* appears in between the two phi-sets while the accusative marker *-t* is suffixed to the second phi-marker set. These differences will not hinder the analysis of direct object marking developed in this thesis. I suggest a way to capture them in footnote 51 of section 5.4.4.3 in Chapter 5.

⁵ As we have seen in section 3.3 of Chapter 3, there are several allomorphs of the direct object DEF-marker on finite verbs. I discuss this in section 4.3 below. Also, I focus here on the personal endings of the definite conjugation in which the DEF-marker is clearly visible, i.e. on the 3rd person singular and 2nd person plural forms. In section 4.4, I will argue that the other endings of the definite conjugation are portmanteau morphemes: they spell out the definiteness of the object and the phi-features of the subject synthetically.

⁶ For ease of exposition, I do not represent the alternative form of the 3rd person singular accusative pronoun, *őtet*.

I therefore propose that the morpheme *-i* is base-generated within 3rd person accusative pronouns, just like with 3rd person dative pronouns, but that it happens to be spelled out on the finite verb. (3) is a schematic representation of the mechanism which gives rise to the truncation of *őt* and *őket* and to the presence of *-i* on *ismeri* in example (2) (I discuss this mechanism in Chapter 6).



The general claim is the following one:

- (4) The marker *-i*, which encodes the definiteness of the direct object in the 3rd person singular and 2nd person plural endings of the definite conjugation, is the DEF-marker 2 base-generated in accusative personal pronouns.

Given the nanosyntactic perspective adopted in this thesis, morphemes are the spell-out of structural layers and constituents.⁷ This means we can reformulate the claim in (4) as follows:

- (5) In the 3rd person singular and 2nd person plural endings, the marker *-i*, which encodes the definiteness of the direct object, is the spell-out of a definiteness layer which originates within the 3rd person pronominal direct object of the finite verb.

In the following section, I provide several pieces of data in support of this analysis.

4.3 Data in support of the analysis

In this section, I extend the data set in order to provide further evidence that the morpheme missing within 3rd person accusative pronouns and the DEF-marker on the finite verb are the spell-out of one and the same structural layer.

⁷ Recall from section 2.1.2 in Chapter 2 that morphemes usually spell out chunks of syntactic structure but that they may also spell out single syntactic layers.

4.3.1 Evidence from phonologically conditioned allomorphy

It is important to remember that morphemes are merely the phonological realization of syntactic layers. This realization may take different forms, depending on the phonological environment in which the layer is spelled out. This fact can be used as a test for the claim made in the previous section: all other things being equal, if the definiteness layer on finite verbs and the layer missing within 3rd person accusative pronouns is the same piece of structure, we expect the set of allomorphs which spell out this layer to be the same, regardless of whether these allomorphs appear within pronouns or on the finite verb. It is the aim of this section to show that this prediction is correct.

We have already seen above that the DEF marker *-i* found in 3rd person dative pronouns *neki* and *nekik* also spells out the DEF-layer on the verb *ismer* ‘know’. However, *-i-* is not the only spell-out of the definiteness layer. For instance, in (6), DEF is spelled out as *-a*:

- (6) János lát-t-a őt.
János see-PAST-DEF him
‘János saw him.’

It is thus necessary to extend the data set and to check whether the other definiteness markers found on verbs also appear on pronouns. In what follows, I first briefly explain the notion of vowel harmony since this phonological process is responsible for the existence of the various DEF-allomorphs. Then, I provide the list of DEF-allomorphs found within pronouns and the set of DEF-morphemes found on finite verbs. We will see that these two sets are identical.

4.3.1.1 Vowel harmony

Vowel harmony requires that all the vowels within a word have certain phonological properties in common.⁸ For instance, in the noun *ismerős* ‘acquaintance’, all the vowels are of front assonance. Vowel harmony affects suffixes as well. When suffixes are added to a consonant-final stem, they display a linking vowel. The properties of this linking vowel must match those of the stem in front- or backness and, for some but not all suffixes, also in roundedness. For instance, the linking vowel of the plural suffix *-k* may take three forms: the back alternant *-ok*, the front unrounded alternant *-ek* or the front rounded alternant *-ök*.⁹ Let us look at concrete examples. In (7a), the stem *asztal* ‘table’ only contains

⁸ I cannot do justice to the complexity of vowel harmony here. The interested reader is referred to Siptár & Törkenczy (2000: 63-74, 157-170) for a detailed description, an analysis and numerous references.

⁹ I limit the presentation of linking vowels to the aspects relevant for the discussion. A detailed study is provided in Siptár & Törkenczy (2000: 214-264).

back vowels. When *-k* is suffixed onto this stem, the linking vowel has to be of back assonance as well. Thus, the back vowel alternant *-ok* is inserted. As shown in (7b), if *-k* suffixes onto a front vowel stem whose last vowel is unrounded, the linking vowel is the front unrounded vowel *e*. Finally, as illustrated in (7c), the front rounded vowel *ö* is used when *-k* attaches to front vowel stems whose last vowel is rounded (Rounds 2001: 11, Törkenczy 2002: 12-14).¹⁰ When the stem ends in a vowel, the plural marker *-k* is suffixed without a linking vowel (Törkenczy 2002: 20), (7d).

- (7) a. *asztal-ok* / **-ek* / **-ök* ‘tables’
 b. *gyerek-ek* / **-ok* / **-ök* ‘children’
 c. *ismerős-ök* / **-ok* / **-ek* ‘acquaintances’ Rounds (2001: 11)
 d. *kocsi-k* / **-ok* / **-ek* / **-ök* ‘carts’ Törkenczy (2002: 20)

Each form is the spell-out of the same structural layer. In Nanosyntax, this can be represented as follows:

- (8) < *-k* / *-ok* / *-ek* / *-ök* / ... PlP >
 |
 Pl

In sections 4.3.1.2 and 4.3.1.3, I provide an exhaustive inventory of the allomorphs which spell out the definiteness layer in 3rd person singular pronouns and on finite verbs. We will see that the inventory is identical in both cases, showing that we are indeed dealing with the same syntactic layer. A difficulty arises with 3rd person plural pronouns. I thus delay their discussion until section 4.3.1.4.

4.3.1.2 The definiteness markers on 3rd person singular pronouns

I have discussed the morphological makeup of accusative and dative pronouns above. Let us now take a look at the other oblique case pronouns and at pronouns containing postpositions. The makeup of these pronouns is identical to that of dative pronouns (cf. Table 11 above): the case marker or the postposition is suffixed with a person-number marker and may be preceded by another person-number marker in case of emphasis.¹¹ As

¹⁰ As mentioned by Kálmán (2009: 10) “linking vowels cannot be associated with a semantic/grammatical function, they cannot be considered manifestations of a morpheme, so the insertion rule must be phonological in character.”

¹¹ The identical makeup of oblique pronouns and pronouns containing postpositions is also presented in Dékány (2011: 112-113).

an illustration, the forms of the adessive personal pronouns are given in (9). These forms are made of the adessive case marker *nál* ‘at’ / ‘near’, flanked by two sets of phi-features.¹²

- (9) (én)nál-am ; (te)nál-ad ; (ő)nál-a ; (mi)nál-unk ; (ti)nál-atok ; (ő)nál-uk
 ‘at me’ ; ‘at you_{SG}’ ; ‘at him’ ; ‘at us’ ; ‘at you_{PL}’ ; ‘at them’

The focus here is on the definiteness marker found in the 3rd person singular form of these pronouns (I address the 3rd person plural form in section 4.3.1.4). Siptár & Törkenczy (2000: 41) and Törkenczy (2002: 43, 48) list 12 oblique cases and 27 postpositions from which personal pronouns are formed. In Table 12, I list all the DEF-allomorphs which occur in these 39 forms. I provide one example with a case marker and one with a postposition, if any, for each allomorph.

¹² Note that with full DPs, case markers are suffixed on the stem:

- (i) az ágy-nál
 the bed-near
 ‘near the bed’

For information purposes: in some cases, the form of the case marker appearing in pronouns is different from that occurring on full DPs. For example, the form of the illative case on full DPs is *-be/-ba* ‘into’, as shown in (ii). However, in pronouns, the form of the case marker is *bele* (iii).

- (ii) a könyv-be ‘into the book’
 (iii) belé-m ; belé-d ; belé ; belé-nk ; belé-tek ; belé-jük ‘into me/you/...’

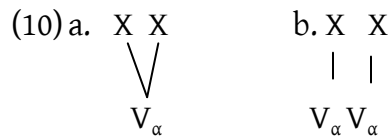
The superessive even uses a suppletive form in the pronominal paradigm:

- (iv) az asztal-on ‘on the table’
 (v) rajt-am ; rajt-ad ; rajt-a ; rajt-unk ; rajt-atok ; rajt-uk ‘on me/you/...’

Table 12: Forms of the DEF-marker on pronouns

DEF-allomorphs	oblique pronoun	Name and translation	postpositional pronoun	translation
-i	nek-i ¹³	dative ‘for / to him’	-	-
-e	vel-e	instrumental ‘with him’	előtt-e elé-(je) ¹⁴	‘in front of him’ ‘to in front of him’
-a	nál-a	adessive ‘at him’	alatt-a alá-(ja)	‘below him’ ‘to below him’
-v (→ Low Vowel Lengthening)	ra-v → rá	sublative ‘onto him’	-	-

The first DEF-marker form is *-i*. It is only found on the dative marker *nek*. The second form, *-e*, gets suffixed onto front vowel stems and the third form, *-a*, is found on back vowel stems. The fourth DEF-marker, which I call *-v* for a reason that will become clear shortly, appears on stems which already end in the low vowels *-a* or *-e*. I argue that the presence of *-v* is witnessed by the lengthening of the stem-final vowel, such as *a* in *rá*. This phonological change is signaled by the diacritic ´. The reason is the following one. All other things being equal, the DEF-layer on *ra* should be spelled out by a vocalic element, i.e. *-i*, *-a* or *-e* as in the other 3rd person pronouns. Following the rules of vowel harmony, this vocalic element should be realized on *ra* by the back vowel *-a*. However, as Siptár & Törkenczy (2000: 125) observe, hiatuses with two identical vowels cannot occur (10). To avoid hiatuses, the two vocalic elements form a long vowel, as illustrated in (10) (see also É. Kiss 2002: 195, fn9). Hence, suffixing the DEF-marker *-a* onto *ra* leads to the formation of the long vowel *á* in *rá*.



Siptár & Törkenczy (2000: 125, their (30a, b))

¹³ The appearance of *-i* in *nek-i* is somewhat peculiar. *Nek* contains the low front vowel *-e*, like other case markers such as *vel* ‘with’ and *ben* ‘in’. While the latter take the DEF-allomorph *-e*, the former takes the high vowel *-i*. I have not found any explanation for this fact. Also note that the use of *-i* instead of *-e* does not violate vowel harmony: both vowels are front unrounded. They only differ in height, a property which is not relevant for vowel harmony in Hungarian.

¹⁴ Here, the glide *-j-* seems to be a mere linking consonant. As we will see in the following section, in other environments this glide may also have morphosyntactic content.



This is an instance of the phonological phenomenon called ‘Low Vowel Lengthening’ (Siptár & Törkenczy 2000: 56-7, 170-173). In what follows, I will therefore refer to this vocalic allomorph -v of the DEF-marker as the ‘LVL-allomorph’. Importantly, this instance of LVL should be distinguished from another instance of this phenomenon which I illustrate in (11). Siptár & Törkenczy (2000: 56-7, 170-173) note that when a low vowel appears at the end of a stem, it has to be lengthened if the stem is suffixed. In (11a), for instance, the accusative suffix -t is added to the nominal stem *alma* ‘apple’. This gives rise to the lengthening of the stem-final -a. Similarly, when the possessor suffix -m is added to the stem *vese* ‘kidney’, the final low vowel -e is lengthened (11b). This lengthening is however not triggered by the need to resolve a hiatus that would be created by the presence of a DEF-marker.

- (11) a. *alma* + -t = *almát*
 ‘apple’ + [ACC] = ‘apple_{ACC}’
 b. *vese* + -m = *vesém*
 kidney + [1.SG] = ‘my kidney’

Finally, let us consider the pronominal forms given in (12) in which the presence of the DEF-marker seems to be optional. Two examples, *elé(je)* and *alá(ja)*, were given in Table 12. Among the 27 postpositional pronominal forms, seven may also appear without DEF-marker (see Rounds 2001: 158). Concretely, when the allomorphs -je/-ja of the DEF-marker do not appear, the form of the bare postposition and the surface form of the 3rd person singular postpositional pronoun are identical. In this case, the presence of the DEF-suffix is not apparent.

- (12) a. *elé* ‘to in front of’ → *elé* / *eléje* ‘to in front of him’
 b. *alá* ‘to below’ → *alá* / *alája* ‘to below him’
 c. *fölé* ‘to above’ → *fölé* / *föléje* ‘to above him’
 d. *mögé* ‘to behind’ → *mögé* / *mögéje* ‘to behind him’

However this does not mean that these pronominal forms do not contain any DEF-layer, nor that the DEF-allomorph in these pronouns is a null morpheme. Consider the following. These 7 postpositional pronominal forms all already end in a long low vowel. Thus, the

process of Low Vowel Lengthening probably occurs, albeit vacuously. Indeed, as noted in Siptár & Törkenczy (2000: 171), the phonological form of final long low vowels is not affected by LVL since it is already in conformity with the requirements of this phonological rule. As another example of vacuous LVL, consider (13). We have seen in (11a) that the suffixation of the accusative marker *-t* triggers LVL on stem-final vowels. When this vowel is already long, LVL has no consequence on its shape:

- (13) kordé + *-t* = kordé-*t*
 ‘cart’ + [ACC] = ‘cart_{ACC}’

Siptár & Törkenczy (2000: 171)

Now let us consider the forms *eléje*, *alája*, etc in which the *-ja/-je* allomorphs of the DEF-marker appears.¹⁵ Here, DEF is only encoded by *-je/-ja*. The lengthening of the stem-final vowel is triggered by the presence of the suffixes *-ja/-je*, just like the suffixation of *-t* on *alma* in (11a) triggers the lengthening of the final *a*.

4.3.1.3 The definiteness markers on finite verbs

Let us now proceed to the exhaustive inventory of DEF-markers on finite verbs. We have already seen that the DEF-layer may be spelled out by *-i* but there are also other forms. As illustrated in Table 13, Hungarian has five Tense/Mood markers: either no marker or *-j* in the present indicative, *-(Vt)t* for the past tense, *-j* indicates the subjunctive (and imperative) mood and *-nV* encodes the (non-past) conditional mood. In the present indicative, front vowel verbal stems are suffixed by the DEF-marker *-i* while back vowel verbal stems are suffixed by the DEF-marker *-a*. The latter also appears on back vowel stems in the past tense and in the conditional mood. In these same contexts, front vowel stems take the DEF-marker *-e*. Finally, in the conditional, the DEF-marker is signalled by the lengthening of the final vowel of the mood suffix.¹⁶

¹⁵ According to my informants, these forms are “old-fashioned” or more literary than *élé*, *alá*, etc.

¹⁶ Den Dikken (2006: 11) also proposes that it is the presence of the DEF-marker that gives rise to LVL in some personal endings of the definite conjugation.

Table 13: Allomorphs of the DEF-marker on the finite verb (definite conjugation)

DEF-allomorph	verbal stem	Tense /Mood marker	Example	translation
-i	front vowel	present indicative: no marker	szeret-i	'He loves him.'
-a	back vowel	present indicative: -j ¹⁷ past tense: -(Vt)t- subjunctive/imperative: -j	bemutat-j-a ¹⁸ bemutat-t-a bemutat-j-a	'He introduces him.' 'He introduced him.' 'He introduce him.'
-e	front vowel	past tense: -(Vt)t- subjunctive/imperative: -j	szeret-t-e kér-j-e	'He loved him.' 'He ask for it.'
-v → LVL	back vowel front vowel vowel	conditional (non-past): -na conditional (non-past): -ne	talál-ná szeret-né	'He would find him.' 'He would love him.'

¹⁷ The literature usually considers the DEF-marker in the present tense of back vowel verbal stems to be -ja. That is, -j- is usually seen as an inherent part of the DEF-marker (Bartos 2001: 312, Coppock & Wechsler 2012: 35, É. Kiss 2002: 43, Rounds 2001: 28, among others):

- (i) Péter lát-**ja** őt / őket.
Péter see-3.SG.OB him/them
'Péter sees him / them'

Bartos (2001: 315, his (8b))

However, as Rebrus & Törkenczy (2005: 269) point out, -j- only appears in the present tense. That is, it seems to be in complementary distribution with the other tense and mood markers. I thus assume that -j- can encode the present tense (ii).

- (ii) Péter lát-j-a őt / őket.
Péter see-PRES-DEF him/them
'Péter sees him / them'

Importantly, the absence of -j- in non-present indicative forms is not caused by phonological deletion. For instance, -j- disappears after the past marker -(ot)t- (iii), but not after the final -t of a stem such as *mutat* 'show' (iv).

- (iii) (Ő) olvas-t-(*)a azokat.
he read-PAST-DEF them
'He read them.'
(iv) (Ő) mutat-*(j)-a azokat.
he show-DEF them
'He shows them.'

¹⁸ As mentioned in footnote 14 above, -j- appears to sometimes play the role of a linking consonant. In the present tense, however, -j- is not a linking consonant. This is shown by the fact that -j- in the present tense occurs on all back vowel verbal stems, even if the DEF-marker -a could be directly suffixed onto this stem. For instance, in the present tense, the 3rd person singular definite ending of the verbs *bemutat* 'introduce' and *hallgat* 'listen' are *bemutat-j-a* and *hallgat-j-a*, not **bemutat-a* and **hallgat-a*.

In the following section, I argue that the morpheme missing within *òket* ‘them’, is also the same as the DEF-marker on the finite verb.

In Chapter 3, I pointed out that not only the 3rd person singular accusative pronoun *õt* but also its plural counterpart *õket* co-occurs with a finite verb suffixed by a DEF-marker. Recall also that the form of the DEF-marker is identical, regardless of the number of the direct object. In the examples in (14), the DEF-markers *-i-* and *-a* occur in the presence of a 3rd person direct object pronoun, be it singular or plural.

- In terms of the present analysis, this means that the DEF-layer that is missing in *ǫket* is spelled out by the DEF-morpheme on the finite verb. In order to show that this is indeed the case, we need to look at the allomorphs of the DEF-morphemes found in the oblique

²⁰ In (14b), the DEF-marker is *-a*. It is lengthened because it is followed by another suffix (cf. the discussion at the end of section 4.3.1.2).

and postpositional pronominal counterparts of *őket* and check whether these allomorphs also appear on finite verbs.

We had already seen that the DEF-allomorph *-i-* is present in *nekik*, the dative counterpart of *őket*. As *-i-* is one of the forms which spell out the DEF-layer on finite verbs, this is a first positive step towards showing that *őket* provides the finite verb with its DEF-marker. However, looking at the other 3rd person plural oblique and postpositional personal pronouns, the evidence is less straightforward. In Table 14, I provide the plural counterparts of the 3rd person singular pronouns given in Table 12 (the complete list of 3rd person plural oblique and postpositional pronouns is provided in Siptár & Törkenczy (2000: 41) and Törkenczy (2002: 43, 48-49)). The morphemes that show up in all these pronouns are the front high vowel *-ü* and its back alternant *-u*. However, these morphemes never spell out the DEF-layer on finite verbs (cf. Table 13).


Table 14: Forms of the 3rd person plural marker on pronouns

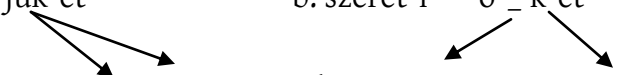
Endings of plural oblique/postpositional pronouns	oblique pronoun	Name and translation	postpositional pronoun	translation
-i-k	nek-i-k	dative 'for / to them'	-	
-ük	vel-ük	instrumental 'with them'	előtt-ük elé-jük	'in front of them' 'to in front of them'
-uk	nál-uk ; ra-juk → rájuk	adessive 'at them' sublative 'onto them'	alatt-uk alá-juk	'below them' 'to below them'

This fact may at first sight seem to contradict the analysis put forth so far. However, observe the following. In the 3rd person singular dative pronoun *nek-i*, *-i-* spells out DEF. In the plural, the regular plural marker *-k* is suffixed to *-i-*, which gives the analytic ending *i-k* 'DEF-plural'. If the endings of the other oblique and postpositional 3rd person plural pronouns were analytic as well, we would expect the plural marker *-k* to suffix onto the low vowel which spells out DEF in the singular counterpart of these pronouns, such as in (15a). But **velék* in (15a) turns out to be ungrammatical.

- (15) a. vel-e → *vel-é-k
 INSTR-DEF → INSTR-DEF-pl
 b. vel-ük
 INSTR-DEF.PL

One could think that the explanation for the appearance of the high vowels *ü* and *u* in the plural is one more case of phonological change triggered by suffixation (cf. for instance the process of Low Vowel Lengthening discussed above). To my knowledge, however, there is no regular phonological phenomenon which would make low vowels turn into a high one when a suffix, such as the plural marker *-k*, is added. Another explanation could be that the vowels *-ü* and *-u* do not spell out any structural layer but are the linking vowels which appear when the plural suffix *-k* is added to a consonant final stem. But this must be excluded as well since linking vowels are usually mid (*-o/-e/ö*) or low (*a/e*) but not high (Siptár & Törkenczy 2000: 219, 224). Having discarded potential phonological explanations, I propose that the synthetic endings *-ük* and *-uk* are portmanteaux of the features DEF and plural. In other words, the structure formed by the DEF and plural layers is associated in the lexicon with a single, indecomposable morpheme *-ük/-uk*. Thus, when the DEF and plural layers are built together in the syntax, the portmanteau morpheme *-uk/-ük* is inserted. However, structurally, the two layers remain distinct and independent. When the structure built in syntax is disrupted, they come to be spelled out separately. This is what happens with 3rd person accusative pronouns: the DEF-layer of this pronoun is spelled out on the finite verb by one of the allomorphs *-i/-a/-e/-LVL* and the plural layer remains within the pronoun and is spelled out by *-k*. This all is summarized schematically in (16) and (17):

- (16) beszél vel-ük
 speak.3.SG INSTR-DEF.PL
 'He is speaking with them.'
- 

- (17) a. *szeret ö-jük-et
 love-3.SG 3.SG-DEF-PL-ACC
 b. szeret-i ö- k-et
 love-DEF 3.SG-DEF-PL-ACC
 'He loves them.'
- 

To sum up, the set of DEF-allomorphs which appear on pronouns but are missing in 3rd person direct object pronouns is identical to that of the DEF-allomorphs which encode the

definiteness of the direct object on the finite verb. In 3rd person plural pronouns, the DEF-layer is spelled out in a portmanteau morpheme together with the plural layer. This is why the DEF-allomorphs do not appear. However, when the DEF-layer is separated from the plural layer these two layers are spelled out separately and the DEF-allomorphs reappear.

4.3.2 A single DEF-layer

I have shown above that 3rd person accusative pronouns lack a DEF-marker and that they always co-occur with a finite verb which displays this DEF-marker. Thus, the following implication has been demonstrated.²¹

(18) Absence of DEF-marker with a pronoun → Presence of DEF-marker on the finite verb

I have then presented evidence from phonologically conditioned allomorphy that the DEF-marker missing in 3rd person accusative pronouns and the one found on the finite verb are the spell-out the same structural layer. To claim that the DEF-layer missing within the pronoun and the DEF-layer on the finite verb are one and the same, we also need to ensure that when a DEF-marker is present within a pronoun, it is absent from the finite verb. That is, the following implication must also hold:

(19) Presence of a DEF-marker within a pronoun → Absence of a DEF-marker on the finite verb

In order to show that (19) is correct, the first step is to show that apart from 3rd person accusative pronouns, all other personal pronouns do not lack their DEF-marker. The second step is to show that all these pronouns can only occur with the indefinite paradigm.

4.3.2.1 Morphologically complete pronouns

We have already seen that 1st and 2nd person accusative pronouns and all dative pronouns are morphologically complete. This was illustrated in Table 9 and Table 11. In sections 4.3.1.2 and 4.3.1.4., the presence of a DEF-marker within 3rd person oblique and postpositional pronouns has also already been mentioned. We now need to check whether

²¹ The 3rd person direct object pronouns *õt* and *õket* may be the complement of non-finite verbs. These verbs however do not encode the definiteness of the direct object (i).

(i) Jõt-t-él meglátogat-ni (*-ja) õt / õket
 come-PAST-2.SG.INDEF visit-INF -DEF him /them.
 ‘You came to visit him/them’

adapted from Den Dikken (2004: 451, his (11a))

This is an issue for present proposal which I leave for further research.

1st and 2nd person oblique and postpositional pronouns are also morphologically complete. In Table 15 and Table 16, the paradigm of the instrumental pronoun composed of the case marker *vel* ‘with’ and the paradigm of the postpositional pronominal form made of the postposition *alatt* ‘below’ are reproduced.²² By comparing the ‘Person/DEF marker 2’ column in these tables to the same columns in Table 9 and Table 11, we observe that no oblique or postpositional pronoun is truncated.

Table 15: The components of instrumental personal pronouns (based on Törkenczy 2002: 48-49 ; Rounds 2001: 124)

		PART 1: first set of phi-markers		PART 2	PART 3: second set of phi-markers		
Number	Person	Person marker 1	Number marker 1	Case-marker: instrumental	Person/DEF marker 2	Number marker 2	Translation
Singular	1	(én)		vel	em		‘with me’
	2	(te)		vel	ed		‘with you _{sg} ’
	3	(ő)		vel	e		‘with him’
Plural	1	(m-	i)	vel	ün	k	‘with us’
	2	(t-	i)	vel	et	ek	‘with you _{pl} ’
	3	(ő	ø)	vel	ük		‘with them’

Table 16: The components of inessive personal pronouns (based on Törkenczy 2002: 43 ; Rounds 2001: 158)

		PART 1: first set of phi-markers		PART 2	PART 3: second set of phi-markers		
Number	Person	Person marker 1	Number marker 1	Case-marker: inessive	Person/DEF marker 2	Number marker 2	Translation
Singular	1	(én)		alatt	am		‘below me’
	2	(te)		alatt	ad		‘below you _{sg} ’
	3	(ő)		alatt	a		‘below him’
Plural	1	(m-	i)	alatt	un	k	‘below us’
	2	(t-	i)	alatt	at	ok	‘below you _{pl} ’
	3	(ő	ø)	alatt	uk		‘below them’

Table 17 summarizes the fact that all personal pronouns, except the 3rd person accusative ones are morphologically complete.

²² The paradigms of the other oblique and postpositional pronouns are provided in Törkenczy (2002: 42-43, 47-49). They are identical to those presented here.

Table 17: Summary of the pronouns with one or two person/DEF markers

	Contain TWO person/DEF markers
1 st and 2 nd person accusative pronouns	YES
All oblique case pronouns	YES
All postpositional pronominal forms	YES
3 rd person accusative pronouns	NO, they contain only one DEF marker

In the next section, I illustrate the fact that with all complete pronouns, the indefinite conjugation occurs.

4.3.2.2 Complete pronouns and the indefinite conjugation

As discussed in section 3.4.4.1 of Chapter 3, 1st and 2nd person accusative personal pronouns co-occur with a finite verb unmarked for definiteness. I repeat an example in (20).

- (20) János ismer / *-i engem / téged / minket / titeket.
 János know.3.SG.INDEF /-DEF me you_{SG} / us /you_{PL}
 ‘János knows me / you / us.’

The following examples serve to illustrate that all oblique and postpositional pronouns must also co-occur with a finite verb that is not suffixed by a DEF-marker. For sake of clarity I only take examples with 3rd person singular subjects. As can be seen, these pronouns are complete. More specifically, no morpheme is missing from the second set of phi-markers.

- (21) János hisz / *-i ...
 János believe.3.SG.INDEF / *-DEF
 ... (én)benn-em/ (te)benn-ed/ (ő)benn-e/
 ... (mi)benn-ünk/(ti)benn-etek / (ő)benn-ük
 ‘János believes in me/you_{SG/PL} /him/us/them.’

- (22) János ül / *-i ...
 János sit.3.SG.INDEF / *-DEF
 ... (én)előtt-em/ (te)előtt-ed/ (ő)előtt-e/
 ... (mi)előtt-ünk/ (ti)előtt-etek/ (ő)előtt-ük
 ‘János sits in front of me/you_{SG/PL} /him/us/them.’

We have now demonstrated that the implication in (19) holds.

Adding the result of this section to those summarized in Table 17, we obtain Table 18.

Table 18: Conjugation paradigms and DEF-marker inside personal pronouns

Type of verbal complement	Indefinite conjugation	Definite conjugation	Contain TWO person markers
1 st / 2 nd person accusative pronoun	v	x	YES
All oblique case pronouns	v	x	YES
All postpositional pronominal forms	v	x	YES
3 rd person accusative pronouns	x	v	NO

From this table, we deduce the following reciprocal implication:

- (23) Presence of a DEF-marker within a pronoun \Leftrightarrow Absence of a DEF-marker on the finite verb

This provides further support for the claim that the DEF-marker found on the finite verb is the spell-out of a definiteness layer which originates within the 3rd person pronominal direct object of the finite verb.

Finally, note that under this reasoning, the use of the indefinite conjugation with monovalent verbs (24) is expected: in the absence of an object, nothing can provide the finite verb with a DEF-layer.²³

- (24) (Ő) fut. / *fut-ja.
 (He) run.3.SG
 ‘He runs / is running.’

The reader familiar with Hungarian will have noticed that possessive and reflexive pronouns do not fit the generalization made in this section: they contain two full-fledged sets of person/DEF markers but co-occur with the definite conjugation. I show in the next section that they share properties with full DPs rather than with personal pronouns. It is thus expected that they behave like full DPs rather than like pronouns with respect to definiteness marking on the finite verb.

4.3.3 Possessive and reflexive pronouns are full DPs

When they are used as direct objects, possessive and reflexive pronouns of all persons co-occur with the definite conjugation. Two examples are given below.

²³ The lack of DEF-marker on finite verbs which take 1st and 2nd person direct objects is treated in section 5.4.6 in Chapter 5. I will not discuss the lack of DEF-marking with oblique complements.

- (25) János akar-**ja** / *-∅ az övét.
 János want-DEF / 3.SG.INDEF his
 'János wants his.'
- (26) (Ő) lát-**ja** / *-∅ magá-t a tükör-ben.
 He can.see-DEF / 3.SG.INDEF himself-ACC the mirror-in
 'He can see himself in the mirror.'

According to the generalization presented above, they should thus all lack a DEF-marker. However, as we will see in this section, none of them do.

I argue in this section that possessive and reflexives pronouns are full possessive DPs.²⁴ They therefore do not fall under the generalization made in (23), which is only about personal pronouns. That is possessive and reflexives trigger definiteness marking in the same way as a full possessive DPs do, independently of the person of the possessor, as shown in (27):

- (27) János akar-**ja** / *-∅
 János want-DEF / 3.SG.INDEF
 'János wants...'
- ... az én könyv-em(-et) / az te könyv-ed(-et).
 the 1.SG.NOM book-1SG(-ACC) / the 2.SG.NOM book-2.SG(-ACC)
 'my book' 'your book'
- ... az mi könyv-ünk-et. / az ő könyv-ük-et.
 the 1.PL.NOM book-1.PL-ACC the 3.PL book-DEF.PL-ACC
 'our book' / 'their book'

In this section, I first discuss the morphological makeup of possessive and reflexive pronouns in order to show that their DEF-layer is not missing. Then, I discuss data which show that these pronouns do not pattern with personal pronouns but with full DPs.

4.3.3.1 Possessive pronouns

As exemplified in (28), direct object possessive pronouns of all persons co-occur with a verb inflected for object definiteness (Törkenczy 2002: 72).

²⁴ This is in line with Bartos (2001: 315, fn 6), Coppock & Wechsler (2012 : 6, 37), É. Kiss (2005: 114) and Marácz (1991: 194, 274).

(28) János akar-**ja** / *-ø ...

János want-**DEF** / *3.SG.INDEF

... az enyém-(et)/ a tied-(et) /az övé-t / a mienk-et / a tietek-et / az övék-et.

mine-ACC / yours-ACC/ his-ACC /ours-ACC /yours-ACC / theirs-ACC.

‘János wants mine/yours/his/hers/its/yours/theirs’.

Given that all these pronouns trigger the use of the definite conjugation, if they fell under the generalization given in (23), we would expect them to all lack a DEF-marker. However, this is not the case.

Table 19 presents the paradigm of nominative possessive pronouns. They serve as the stems onto which case markers, such as the accusative -*Vt* in (28), get suffixed. Table 20 shows their decomposition.

Table 19: Paradigm of the nominative possessive pronouns (Rounds 2001: 129) ²⁵

Number	Person	possessive pronouns	translation
Singular	1	az enyém	‘mine’
	2	a tied / a tiéd	‘yours’
	3	az övé	‘his/her/its’
Plural	1	a mienk / a miénk	‘ours’
	2	a tietek / a tiétek	‘yours’
	3	az övék	‘theirs’

²⁵ Presented here are the possessive pronouns which refer to a singular possessee. Plural possesseees are signaled by the presence of an *-i-* between *-é-* and the person/number marker: *az eny-é-i-m* ‘those of me’, etc.

Table 20: The components of the nominative possessive pronouns

			PART 1: first set of phi-markers		PART 2	PART 3: second set of phi-markers	
Number	Person	Definite determiner	Person marker 1 ²⁶	Number marker 1	Possessee: e/é	Person/DEF marker 2	Number marker 2
Singular	1	az	eny		é	m	
	2	a	ti		e/é	d	
	3	az	öv		e	'	
Plural	1	a	m-	i	e/é	n	k
	2	a	t-	i	e/é	te	k
	3	az	öv	ø	e	'	k

Let us compare Table 20 with Table 11 in section 4.1.2, where the dative pronouns were decomposed. I reproduce Table 11 below for convenience.

Table 11: The components of dative personal pronouns

		PART 1: first set of phi-markers		PART 2	PART 3: second set of phi-markers	
Number	Person	Person marker 1	Number marker 1	Case-marker: DATIVE	Person/DEF marker 2	Number marker 2
Singular	1	(én)		nek	em	
	2	(te)		nek	ed	
	3	(ő)		nek	i	
Plural	1	(m-	i)	nek	ün	k
	2	(t-	i)	nek	t	ek
	3	(ő	ø)	nek	i	k

First, consider column PART 2. In dative pronouns, the cells of this column are occupied by the case marker *-nek-*. In possessive pronouns they are occupied by an anaphoric possessee *-e/-é-* (Den Dikken 2006: 15, Siptár & Törkenczy 2000: 40), whose role resembles that of the English pronoun *one* (Dékány 2011: 6, 189). This is shown in (29):

²⁶ Some Person markers 1 differ morphologically from those found in personal pronouns (cf. Table 9 and 11 above). This fact is irrelevant for the discussion in the main text, I thus only briefly comment on these forms. Kálmán (1972: 57) explains that *-y-* in *enyém* is the result of palatalization of *n* preceding a vowel. I assume that *-i-* in *tied* results from the adjacency of *te* and *-e/é-* and has nothing to do with the plural marker *-i-*. As for *-v-* in *övé* and *övék*, I assume it is a linking consonant that is inserted between the two vowels *ö* and *é*.

- (29) a *gyerek-é*
 the child-*é*
 ‘the child’s one’

Dékány (2011: 189, her (5))

Second, we see that the Person/DEF markers 2 are present in all persons in both tables. While this is clear in 1st and 2nd person pronouns, a comment on the Person marker 2 of the 3rd person possessive pronouns is in order. In section 4.3.1.2, we have seen that one of the DEF-allomorphs was the trigger for Low Vowel Lengthening, signalled by the diacritic ´. I hence take *-é-* in *övé(k)* to be composed of the anaphoric possessee *-e-* together with the DEF-marker whose presence triggers LVL. Alternatively, the anaphoric possessee is not *-e-* but *-é-*. In this case, the stem to which the DEF-marker attaches already ends in a long low-vowel. The process of Low Vowel Lengthening triggered by the presence of the DEF-layer applies vacuously, as I discussed above for the 3rd person singular postpositional pronouns *elé*, *alá*, etc (cf. section 4.3.1.2, ex. (12)). Whatever the precise analysis is, there is evidence that the 3rd person possessive pronouns, just like their 1st and 2nd person counterparts do not lack their DEF-layer.

In conclusion, all possessive pronouns, just like dative and other oblique and postpositional personal pronouns, are structurally complete. But contrary to dative and other oblique and postpositional pronouns, direct object possessive pronouns trigger definiteness marking on the finite verb. In the next section, I show that reflexive pronouns behave on a par with possessive pronouns: they are structurally complete, yet they trigger definiteness marking on the finite verb. In section 4.3.3.3, I argue that both possessive and reflexive pronouns must be considered as full DPs rather than as pronouns. Their systematic co-occurrence with the definite conjugation is therefore expected.

4.3.3.2 Reflexive pronouns

Direct object reflexive pronouns of all persons co-occur with a finite verb in the definite conjugation (Törkenczy 2002: 72). Examples are given in (30):

- (30) a. (*Ő*) lát-**ja** / *-ø mag-á-t a tükör-ben.
 He can.see-DEF / 3.SG.INDEF core-DEF-ACC the mirror-in
 ‘He can see himself in the mirror.’
 b. (*Én*) lát-**om** / *-ok mag-am-(at) a tükör-ben.
 (I) can.see-1.SG.DEF / -1.SG.INDEF core-1.SG-(ACC) the mirror-in
 ‘I can see myself in the mirror.’
 c. (*Mi*) lát-**juk** / *-unk mag-unk-at a tükör-ben.
 (We) can.see-1.PL.DEF / -1.PL.INDEF core-1.PL-ACC the mirror-in
 ‘We can see ourselves in the mirror.’

If reflexive pronouns fell under the generalization proposed in (23), we would expect them to all lack a DEF-marker. As shown below, this is however not the case.

Table 21 presents the paradigm of nominative reflexive pronouns. They serve as the stems onto which case markers, such as the accusative *-Vt* (30), get suffixed.

Table 21: Paradigm of the reflexive pronouns (Törkenczy 2002: 49)

Number	Person	reflexive pronouns (nominative)	translation
Singular	1	(én) magam	‘myself’
	2	(te) magad	‘yourself’
	3	(ő) maga	‘him/her/itself’
Plural	1	(mi) magunk	‘ourselves’
	2	(ti) magatok	‘yourselves’
	3	(ők) maguk	‘themselves’

Table 22 shows their decomposition. They are composed of a 3rd person singular nominal possessee *mag* which means ‘core’, kernel’ and a possessor suffix which indicates the number and person features of pronoun’s referent (É. Kiss 2005: 114, Marácz 1991: 301 - fn 21). As is clear from this table, no person marker 2 is missing in reflexive pronouns.

Table 22: The components of the reflexive pronouns

Number	Person	PART 1: first set of phi-markers		PART 2	PART 3: second set of phi-markers	
		Person marker 1	Number marker 1	possessee ‘core, kernel’	Person/DEF marker 2	Number marker 2
Singular	1	(én)		mag	am	
	2	(te)		mag	ad	
	3	(ő)		mag	a	
Plural	1	(m-	i)	mag	un	k
	2	(t-	i)	mag	at	ok
	3	(ők	ø)	mag	uk	

In the next section I provide arguments in favor of treating possessive and reflexive pronouns as full DPs. As a result, we can predict that they do not fall under the generalization in (23) for pronouns. Hence, their ability to trigger object definiteness marking on the finite verb is expected.

4.3.3.3 Possessive and reflexive pronouns are DPs

Possessive pronouns and reflexive pronouns share properties with full DPs. Crucially, these properties are not shared by personal pronouns.

First, possessive pronouns, reflexive pronouns and full DPs can be suffixed by any case marker (Törkenczy 2002: 47, 49; Rounds 2001: 128 - 129). For instance, as shown in (31), the possessive pronouns *az enyém* ‘mine’, *a tied* ‘yours’, *a tietek* ‘yours’ and *az övek* ‘theirs’ can bear a dative, instrumental, superessive or elative marker. The same holds for reflexive pronouns, as seen in (32), and for full DPs (33). Differently, in personal pronouns (except accusative ones), the case marker is not suffixed but infixed (34).

- (31) *az enyém-nek* ; *a tied-del*²⁷ ; *a tietek-en* ; *az övek-ből*
mine-DAT ; yours-INSTR ; yours-SUPERESS ; theirs-ELAT
‘for/to mine’ ; ‘with your_{SG}’ ; ‘on your_{PL}’ ; ‘out of theirs’
- (32) *mag-am-nak* ; *mag-ad-dal* ; *mag-at-ok-on* ; *mag-uk-ból*
core-1.SG-DAT ; core-2.SG-INSTR ; core-2-PL-SUPERESS ; core-3.PL-ELAT
‘for/to myself’ ; ‘with yourself’ ; ‘on yourselves’ ; ‘out of themselves’
- (33) *a ház-nak* ; *a ház-zal* ; *a ház-on* ; *a ház-ból*
the house-DAT ; the house-INSTR ; the house-SUPERESS ; the house-ELAT
‘for/to the house’ ; ‘with the house’ ; ‘on the house’ ; ‘out of the house’
- (34) *én-nek-em* ; *te-vel-ed* ; *ti-rajt-atok* ; *ő-ből-ük*
1.SG-DAT-1SG ; 2.SG-INSTR-2.SG ; 2.PL-SUPERESS-2.PL ; 3.PL-ELAT-3.PL
‘to/for me’ ; ‘with you_{SG}’ ; ‘on you_{PL}’ ; ‘out of them’

Another property which shows that reflexive pronouns pattern like full DPs and differently from pronouns concerns the phenomenon referred to as ‘anti-agreement’ (Moravcsik 2003: 149, 197; Den Dikken 1998, 1999, 2006: 4-10; É. Kiss 2002: 170-172, 186-187). I first present this phenomenon and then return to its relevance for reflexive pronouns. The description and the examples are based on Rounds (2001: 127, 140, 151).²⁸ In Hungarian, the plurality of a full DP possessor is only indicated on the possessor, not on the possessee. This is illustrated in (35).

- (35) a. *a fiú-k könyv-e*
the boy-PL book-3.SG
‘the boys’ book.’

²⁷ The instrumental case marker is *-vel/-val* but its initial consonant *v-* assimilates with the last consonant of the stem onto which it is suffixed (Rounds 2001: 111).

²⁸ I only present the phenomenon of anti-agreement with nominative possessors. Anti-agreement patterns with dative possessors are more complex and subject to speaker variation. For discussion, see Den Dikken (1999).

- b.*a fiú-k könyv-ük
the boy-PL book-3.PL
- c.*a fiú könyv-ük
the boy book-3.PL

Conversely, when the possessor is a 3rd person pronoun, the plurality of the possessor is marked exclusively on the possessee (36).

- (36) a. az ő könyv-ük
the 3.SG book-3.PL
'their book'
- b.* az ő-k könyv-ük
the 3-PL book-3.PL
- c.*az ő-k könyv-e
the 3-PL book-3.SG

This lack of a plural morpheme either on the possessee (35) or on the possessor (36) is called 'anti-agreement'.

Let us now turn to the patterns of anti-agreement with reflexive pronouns. They are identical to those observed with full DPs.

3rd person (formally) reflexive pronouns are used to refer politely to an addressee. For instance, *maga* and *maguk* are the polite counterparts of the nominative 2nd person personal pronouns *te* and *ti* respectively:

- (37) Maga keres egy könyv-et.
You_{SG} look.for.3.SG.INDEF a book-ACC
'You_{SG} are looking for a book.'
- (38) Maguk keres-nek egy könyv-et.
You_{PL} look.for.3.PL.INDEF a book-ACC
'You_{PL} are looking for a book.'

As Den Dikken (1998: 106, fn 6; 1999:172, fn14) points out, however, *maga* and *maguk* behave on a par with full DPs and not with personal pronouns when used as possessors.

When the possessor is plural, the plural form *maguk* must be used (39a) and the possessee cannot be suffixed by the plural possessor suffix *-ük* (39b, c).²⁹

- (39) a. a mag-**uk** könyv-e
 the core-3.PL book-3.SG
 ‘your_{PL} book.’adapted from Rounds (2001: 127)
 b. *a mag-uk könyv-ük
 the core-3.PL book-3.PL
 c. *a mag-a könyv-ük
 the core-3.SG book-3.PL

Direct object possessive pronouns also behave like full DPs, and differently from personal pronouns, with respect to the marker they trigger on finite verbs. In Hungarian, when a finite verb takes a 1st person singular subject and a 2nd person direct object personal pronoun, the particular inflectional morpheme *-lak/-lek* appears on the finite verb (cf. section 3.5 of Chapter 3, footnote 18).

- (40) (Én) lát-lak (téged) / titeket.
 I see-LAK/LEK you_{SG/PL}
 ‘I see you_{SG/PL}.’

If possessive pronouns behaved like personal pronouns, we would expect a 2nd person accusative possessive pronoun to co-occur with a finite verb suffixed by *-lak/-lek* when the subject is 1st person singular. However, as pointed out in Den Dikken (2006: 16), this is not the case. Instead, the ending *-Vm* of the definite conjugation occurs (41), (42). This ending spells out the phi-features of the subject, 1st person singular, when the direct object is a full definite (possessive) DP, as illustrated in (43).

²⁹ Contrary to (formally) reflexive pronouns, possessive pronouns cannot be used as possessors. For instance, the following example is ungrammatical:

(i) *az övé könyv-e
 the his.one book

Intended: ‘the book of the one of him’ (for example, ‘the book of his sister’).

Thus, Den Dikken’s anti-agreement test cannot be applied to possessive pronouns.

(41) (Én) kap-om / *kap-lak a ti-e-d(-et).
 (I) get-DEF.1.SG / *get-LAK/LEK the you-‘ONE’-2.SG(-ACC)
 ‘I get the one of you_{SG}.’

(42) (Én) kap-om / *kap-lak a ti-e-tek-et.
 (I) get-DEF.1.SG / *get-LAK/LEK the you-‘ONE’-2.PL-ACC
 ‘I get the one of you_{PL}.’

Den Dikken 2006: 16, his (24a, b)

(43) (Én) kap-om a könyv-et / az én könyv-em(-et).
 I get-1.SG.DEF the book-ACC / the 1.SG book-1.SG-ACC
 ‘I get the book / my book.’

Thus, accusative possessive pronouns trigger the same type of verbal inflection as full DPs.³⁰

Summing up, in this section I have shown that possessive and reflexive pronouns share properties with full DPs. Crucially, personal pronouns are not endowed with these properties. The fact that possessive and reflexive pronouns of all persons also behave like full DPs with respect to definiteness marking on the finite verb is therefore expected. The occurrence of the definite conjugation with full DPs and thus with possessive and reflexive pronouns will be accounted for in Chapter 6.

4.4 Portmanteaux

I have argued in the previous sections that the marker *-i-* and its allomorphs suffixed onto finite verbs are base-generated within the direct object. These DEF-markers are clearly visible in the 3rd person singular and in the 2nd person plural endings of the definite conjugation. I repeat examples below.

(44) János ismer-i a lány-t.
 János know-DEF the girl-ACC
 ‘János knows the girl.’

(45) (Ti) ismer-i-tek a lány-t.
 you_{pl} know-DEF-2.pl the girl-ACC
 ‘You_{PL} know the girl.’

³⁰ Since the ending *-lak/lek* occurs exclusively on finite verbs which take a 1st person subject and a 2nd person object, this test is not applicable to reflexive pronouns.

However, in the other endings of the definite paradigm, the presence of the DEF-marker is not clear (cf. Table 23). In this section, I argue that these endings spell out the DEF-marker of the direct object and the subject agreement markers synthetically. In other words, these endings are portmanteau morphemes. In Table 23, they are set in bold.

Table 23: Definite and indefinite conjugation of *kér* ‘ask.for’

phi-features of the subject		present indicative	
number	person	indefinite conjugation	definite conjugation
singular	1	kér-ek	kér- em
	2	kér-sz	kér- ed
	3	kér	kér-i
plural	1	kér-ünk	kér- jük
	2	kér-tek	kér-itek
	3	kér-nek	kér- ik

The idea that certain endings of the Hungarian definite conjugation result from the fusion of the object’s definiteness marker and of the subject’s phi-features marker is common in the literature (Bartos 1999, 2000; É. Kiss 2002: 49; Rebrus 2000; Trommer 1995; among others). However, Trommer (2003) argues against this portmanteau analysis. Below, I review Trommer’s objections and I show that once we adopt a nanosyntactic perspective, the issues he raises simply vanish.

Trommer (2003: 5-6) argues that no ending of the definite paradigm is a portmanteau of object definiteness and subject phi-features. His claim is based on two observations, which I discuss in turn. I will show that, while Trommer’s observations are legitimate, they do not in fact entail that the synthetic endings of the definite paradigm do not spell out the DEF-layer.

Trommer’s first observation is that certain endings of the definite conjugation also mark the person and number of the possessor in possession constructions, where there is no direct object. For example, in (46a) and (47a), the 1st and 2nd person singular possessor suffixes are *-Vm* and *-Vd* respectively, just like the 1st and 2nd person singular markers of the definite conjugation ((46b) and (47b)). But in (46a) and (47a), there is no object whose definiteness is encoded. Trommer concludes that endings such as *-Vm* and *-Vd* in the definite conjugation only encode the phi-features of the subject, not the definiteness of the object.

- (46) a. (az én) könyv-**em** b. (Én) szeret-**em** őket.
 (the 1.SG.NOM) book-**1.SG** I love-**1.SG.DEF** them
 ‘my book’ ‘I love them.’
- (47) a. (a te) könyv-**ed** b. (Te) szeret-**ed** őket.
 the 2.SG.NOM book-**2.SG** you_{SG} love-**2.SG.DEF** them
 ‘you_{SG}r book’ ‘You_{SG} love them.’

Observe, however, that the same parallel between possessor suffixes and endings of the definite conjugation holds in the 3rd person singular as well. The suffixes *-a* / *-e*, which appear when the possessor is a 3rd person singular pronoun or a full DP are identical to the allomorphs of the DEF-layer. This can be seen by comparing the examples (48a) and (49a) with their b-counterparts.

- (48) a. (az ő) / a fiú könyv-**e** b. (Ő) szeret-t-**e** őket.
 (the 3.SG.NOM) / the boy book-**3.SG** He love-PAST-**DEF** them
 ‘his / the boy’s book’ ‘He loved them.’
- (49) a. (az ő) / a fiú tál-**a** b. (Ő) kap-j-**a** őket.
 (the 3.SG.NOM) / the boy bowl-**3.SG** He get-SUBJUNCT-**DEF** them
 ‘his / the boy’s bowl’ ‘He get_{SUBJ} them.’

Just like in (46a) and (47a), in (48a) and (49a), there is no direct object whose definiteness could be encoded. Thus, following Trommer’s reasoning, the markers *-a* / *-e* on finite verbs should encode the phi-features (3rd person singular) of the subject, not the definiteness of the object. But this is not correct: 3rd person subjects are not overtly marked on finite verbs and *-a* / *-e* occur on finite verbs whose direct objects are definite. Thus, the fact that *-Vm* and *-Vd* are also used as possessor suffixes does not entail that these lexical items, when they are suffixed on finite verbs, do not encode the presence of a definite direct object. On the contrary, the fact that *-a* / *-e* encode definiteness on the finite verb and the fact that *-Vm* and *-Vd* appear under the same conditions as *-a* / *-e* suggest that *-Vm* and *-Vd* not only encode the phi-features of the subject but also definiteness. In order to capture the fact that *-Vm*, *-Vd* and *-a* / *-e* appear in the presence of a direct object (on finite verbs) and in the absence of a direct object (on possessors), we must assume that the definiteness which these morphemes encode is not necessarily the definiteness of the direct object. That is, *-Vm*, *-Vd* and *-a* / *-e* spell out definiteness whatever the source of this feature is. Below, I formalize the idea that *-Vm*, *-Vd* spell out both a definiteness layer and a person layer.

Trommer's second observation follows the same reasoning as the first one but deals with a syncretism in the verbal system. The 1st person marker *-Vm* of the definite conjugation also appears in some indefinite paradigms. First, verbs of the '*-ik*-verbs' class may use the ending *-Vm* in their indefinite as well as in their definite paradigm. Note, however, that the regular indefinite *-Vk* ending is also an option in their indefinite paradigms. For instance, the verb *iszik* 'to drink' may be suffixed by *-Vm* regardless of whether it is used intransitively (50a) or with a definite direct object (50b). In the former case, the regular indefinite ending *-Vk* is also possible.

- (50) a. (Én) *isz-om* / *-ok*.
 (I) drink-1.SG.DEF / -1.SG.INDEF
 'I drink.'
 b. (Én) *isz-om* a csésze teát.
 (I) drink-1.SG.DEF the cup of.tea
 'I drink the cup of tea.'

Second, *-Vm* is the 1st person singular ending of all verbs in the past tense independently of the presence or absence of a definite direct object. This is illustrated in (51) with the verb *olvas* 'to read'.

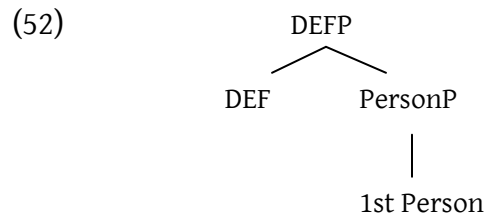
- (51) a. (Én) *olvas-t-am*
 (I) read-PAST-1.SG.INDEF
 'I read.'
 b. (Én) *olvas-t-am* a könyv-et.
 (I) read-PAST-1.SG.DEF the book-ACC
 'I read the book.'

Hence, Trommer concludes, if *-Vm* spelled out the definiteness of the object, its appearance in certain indefinite paradigms would be unexplained.

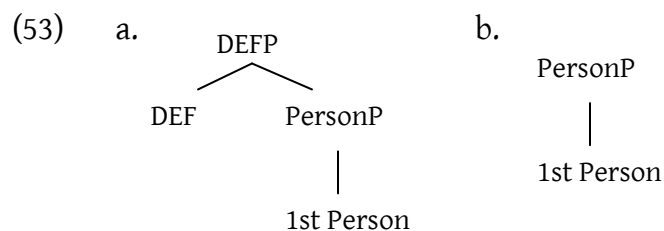
The question arising at this point is the following one: can we predict that syncretisms between some markers of the definite conjugation and some markers of the indefinite conjugation may occur, without giving up the idea that the endings of the definite paradigm also encode definiteness? I argue that all we need in order to answer this question positively is the nanosyntactic Superset Principle.

Recall that in Nanosyntax, features project syntactic layers which are organized hierarchically and form functional sequences. Also, if two layers are spelled out together, they must form a constituent. Building on this and on the ability of *-Vm* and *-Vd* to spell out

both definiteness and person, let us assume the existence of a lexical item whose phonological realization is *-Vm* and whose structure is depicted in (52):



According to the Superset Principle, a lexical item can be inserted if the structure with which it is associated in the lexicon is a superset of the structure which has been built in the syntax. For the example at hand, the Superset Principle predicts that the lexical item *-Vm* can be inserted if the structure built in the syntax is either (53a) or (53b).



The question now arises whether the predictions made by the Superset Principle are correct. (53a) captures the fact that *-Vm* is used in the presence of a definite direct object when the subject is 1st person singular. (53b) captures the fact that *-Vm* may be used when there is only a first person singular but no definite direct object.

To sum up, the Superset Principle enables us to capture the fact that endings of the definite conjugation may appear in cases where no definiteness is encoded. However, the question now arises *why* these endings appear in some cells of the indefinite paradigm. For instance, though the analysis proposed captures the fact that *-Vm* can be used in the indefinite paradigm, it is still not clear why *-Vm* appears instead of the ending *-Vk* in the 1st person singular cell of some indefinite paradigms. I leave the treatment of this issue for further research (see Rebrus & Törkenczy (2005) for a proposal in Optimality Theory).

4.5 Conclusion

In this chapter, I provided a detailed morphological decomposition of Hungarian personal pronouns. I observed that while all pronouns display two sets of phi- and definiteness markers, 3rd person direct object pronouns lack a definiteness morpheme. I then provided morphological evidence for the hypothesis that the morpheme lacking within 3rd person direct object pronouns is spelled out on the finite verb. This leads to the formation of the endings of the definite conjugation. As the presence of the DEF-morpheme is not clear in all the forms of the definite conjugation paradigm, I argued that the phi-features of the subject and the DEF-marker of the direct object may be spelled out together in portmanteau morphemes. Finally, I discussed Trommer's arguments against a portmanteau analysis of the endings of the definite conjugation. I argued that Trommer's observations can be reconciled with the idea that some endings are portmanteau morphemes if we adopt the nanosyntactic Superset Principle.

5 Direct object marking with pronouns: analysis (part 2)

5.1 Introduction

In Chapter 4, I have presented several pieces of evidence in favor of my hypothesis that in Hungarian, when a finite verb takes a 3rd person pronoun as its direct object, the object marker found on this verb originates within the pronoun itself. The aim of the present chapter is to elaborate on the nature and on the precise base-generated position of this morpheme within the direct object pronoun. The structure is as follows. In section 5.2, I show that the morphological makeup of Hungarian non-nominative personal pronouns and in particular, of direct object pronouns, is the same as that of a possessive DP. In section 5.3, I develop a base-generated structure of non-nominative personal pronouns. In section 5.4, I turn to the derivation of these pronouns. Once the broad proposal is in place, I proceed to a nanosyntactic derivation. Ultimately, in the derived structure of 3rd person direct object pronouns, I identify the source of the direct object marker which is spelled out on the finite verb after the clausal derivation.

5.2 The morphological makeup of Hungarian non-nominative personal pronouns

In this section, I demonstrate that the composition of non-nominative personal pronouns and in particular, direct object pronouns, is similar to that of possessive DPs. This had already been hinted at above but I proceed to a more detailed discussion below. The various parallelisms between possessive DPs and non-nominative pronouns have often

been pointed out in the literature and several accounts have been developed in which non-nominative personal pronouns have a possessive structure (see Dékány 2011: 112-113, 127, 169, 182-3; Den Dikken 2004: 466-468, 2006: 14-15; Marác 1986: 229, 232-233, 235; Moravcsik 2003: 146, 159, 178; É. Kiss 2002: 157-175, 186-191; Szabolcsi 1992: 11-35, 87; among others). Hegedűs (2011) and Rákosi & Laczko (2011) argue that most cases and postpositions result from the grammaticalization of nominal roots and that it is therefore not surprising to find them in a possession construction (see also Szabolcsi 1992: 26). However, none of these accounts include the 3rd person singular and plural accusative personal pronouns, *őt* ‘him’ and *őket* ‘them’. In what follows, I argue that *őt* and *őket* are not exceptions: their underlying structure is also like that of a possession construction.

This section is organized as follows. In 5.2.1, I explain how nominal possession with a nominative pronominal possessor is expressed in Hungarian. I present the syntactic and morphological properties of this construction. In 5.2.2, I show that the makeup of non-nominative pronouns, including *őt* and *őket*, display the exact same properties. In 5.2.3, I discuss the syntactic status of the possessee in non-nominative pronouns.

5.2.1 The expression of possession

In this section, I present the properties of the expression of nominal possession with a nominative possessor in Hungarian.¹ The data is based on Rounds (2001: 140-145) and Törkenczy (2002: 20-22).

Property 1 : possessor marker on the possessee

In Hungarian, possessee are suffixed by a possessor marker. This marker references the number, the person and the definiteness of the possessor. In (1), the possessee is suffixed by the morphemes *-n-* and *-k*. As proposed in section 4.4 of Chapter 4, the suffix *-n-* encodes

¹ The purpose of this section is to show that the makeup of non-nominative pronouns is similar to that of possessive DPs with a nominative possessor. It will suffice to present the expression of possession with a singular possessee. The reason is the following one. As we will see below, the position of the possessee (‘PART 2’ in Table 1) is occupied in non-nominative pronouns by case markers. Contrary to nominal possessee, case markers are never marked for plural.

Also, nominal possession in Hungarian can be expressed with a dative possessor as well (i).

- (i) Imré-nek a kalap-ja
 Imre-DAT the hat-DEF
 ‘Imre’s hat’

Some properties of the possession construction with dative marked possessors are different from those described in the main text (see Den Dikken (1999) for extensive discussion). Again, as the makeup of non-nominative pronouns resembles that of possessive DPs with nominative possessors, I will not be concerned with the possession construction in which the possessor is dative.

the definiteness and the 1st person features of the possessor. The suffix *-k* encodes the possessor's plural feature. In (2), the possessor is 3rd person singular and the possessee is suffixed by the definiteness marker *-ja*. The possessee may also be preceded by a nominative pronoun which refers to the possessor if the latter is emphasized.² For instance, in (1) and in (2), the 1st person plural nominative pronoun *mi* and the 3rd person singular nominative pronoun *ő* may precede the possessee *bábu* 'puppet'.

- (1) (a) (m-i) *bábu-n-k*³
 the 1-PL.NOM puppet-1.DEF-PL
 'our puppet'
- (2) (az) (ő) *bábu-ja*
 the 3.SG.NOM puppet-DEF.SG
 'His puppet'

The entire paradigm is provided in Table 24. Following the discussion in section 4.4 of Chapter 4, I assume that 1st and 2nd person possessor suffixes on possessee spell out both a person and a definiteness feature. 3rd person possessor suffixes are only composed of a definiteness layer. The 'person marker 2' cell of these pronouns is thus empty.⁴ In the same way, I follow Farkas & De Swart (2003: 38-57, 127-129) and consider number to be a privative feature in Hungarian. That is, singular interpretation corresponds to the absence of a number feature and thus of a number layer in the structure. This is indicated by the grey shade in the relevant cells of Table 24.

² For the sake of simplicity, in what follows, the examples will always contain an overt nominative pronominal possessor without bracketing and the translations will not reflect emphasis. Note that for the moment, I follow the literature (Rounds 2001: 140; Szabolcsi 1992: 7; among others) and take the pronoun which precedes the possessee to be a nominative pronoun. I will argue in section 5.4.7, however, that it also contains an accusative case layer.

³ The definite article may be omitted in the absence of the emphatic possessor pronoun. This does not affect the definite or specific interpretation of the possessive DP.

⁴ I will argue in section 5.4.5.2 that the nominative pronouns (PART 1 in Table 24) are not only composed of person and number layers. I gloss over this for the present purposes.

Table 24: Components of possessive DPs with a singular possessee and a pronominal nominative possessor ⁵

		PART 1: nominative personal pronoun		PART 2	PART 3: possessor marker		
Nb	Pers	Person marker 1	Number marker 1		DEF-marker	Person marker 2	Number marker 2
Singular	1	(én)		POSSESSEE (SINGULAR)	-Vm ⁶		
	2	(te)			-Vd		
	3	(ő)			-(j)a / -(j)e		
Plural	1	(m	i)		-(u)n / -(ü)n		-k
	2	(t	i)		-Vt		-Vk
	3	(ő) ⁷			-(j)uk / -(j)ük ⁸		

Property 2: fixed morpheme order

The word order in possessive DPs with a nominative possessor is fixed: first, a definite article, then the nominative pronominal possessor, which is itself followed by the possessee and the possessor suffix. Schematically, this gives (3).

(3) (definite article) (pronominal possessor) possessee-[possessor marker]

⁵ For information purposes, I point out that, when the possessee refers to a plural entity, the marker *-i* appears between the possessee and the possessor marker. This is illustrated with a 1st person singular and a 3rd person plural possessor in (i). As (ib) shows, the presence of *-i* seems to correlate with a reduced form of the possessor marker. As noted in footnote 1, the makeup of possessive DPs with a plural possessee is not relevant for the present purposes. I will thus not address this fact here.

(i) a. az én órá-i-m
the 1.SG.NOM clock-PL-1.SG
'my clocks'
b. az ő órá-i-(*u)k
the 3.PL.NOM clock-PL-3.PL
'their clocks'

Rounds (2001: 146), glosses are mine

⁶ 'V' represents the epenthetic linking vowel which occurs when the stem, i.e. the possessee, ends in a consonant. Which allomorph of the possessor suffixes appears is dictated by the rules of vowel harmony presented above (Törkenczy 2002: 21). As for the glide *-j-* of the definiteness markers, it occurs when the stem ends in a vowel or in certain consonants (Rounds 2001: 141-2, Törkenczy 2002: 22, Racz 2011).

⁷ I assume for now that *ő* spells out both the Person marker 1 and the Number marker 1. I come back to this in section 5.4.5.3.

⁸ Recall from section 4.3.1.4 of Chapter 4 that the allomorphs *-(j)uk* / *-(j)ük* are portmanteaux composed of the definiteness and the plural markers.

Property 3: the plural of 1st and 2nd person possessors is marked twice.

With 1st and 2nd person plural pronominal possessors, plural has to be marked both on the nominative pronoun and on the possessor suffix (4a, 5a). Single plural marking of either the nominative pronoun or the possessor suffix leads to ungrammaticality, as illustrated in (4b, c) and (5b, c).

- (4) a. a m-i autó-n-k
the 1-PL.NOM car-1.DEF-PL
'our car'
b. *a én autó-n-k
the 1.SG.NOM car-1.DEF-PL
c. *a m-i autó-m
the 1-PL.NOM car-1.DEF.SG
- (5) a. a t-i autó-t-ok
the 2-PL.NOM car-2.DEF-PL
'your car'
b. *a te autó-t-ok
the 2.SG.NOM car-2.DEF-PL
c. *a t-i autó-d
the 2-PL.NOM car-2.DEF.SG

Property 4: the plural of 3rd person possessors is marked only once.

The plurality of a 3rd person pronominal possessor is only marked on the possessor marker (6a). A 3rd person nominative pronoun marked for plural is ungrammatical (6b). As we have seen in section 4.3.3.3 of Chapter 4, this phenomenon is referred to as “anti-agreement” in the literature (Moravcsik 2003: 149,197; Den Dikken 1998, 1999, 2006: 4-10; É. Kiss 2002: 170-172, 186-187).

- (6) a. az ő táská-juk
the 3.PL.NOM bag-DEF.PL
'their bag'
b. *az ő-k táská-juk
the 3-PL.NOM bag-DEF.PL

Property 5: the accusative marker -t is optional with 1st and 2nd person singular possessors. When non-possessive DPs are used as direct objects, they have to be suffixed by the accusative marker -t (7). This holds for possessive DPs as well (8), except when the

possessor is 1st or 2nd person singular. In that case, the accusative marker *-Vt* is only optional (9), (10).

- (7) Felolvas-t-am a level-ek-**et** / *level-ek.
 Read-PAST-1.SG.DEF the letter-PL-**ACC** / letter-PL
 ‘I read the letters.’
- (8) Keress-ük a ő autó-já-**t** / *autó-ja.
 Look-1.PL.DEF the 3.SG.NOM car-DEF.SG-**ACC** car-DEF.SG
 ‘We are looking for his car.’
- (9) Ismer-ed a én bátyá-m(**-at**).
 Know-2.SG.DEF the 1.SG.NOM brother-1.DEF.SG(**-ACC**)
 ‘You know my brother.’
- (10) Ismer-em a te bátyá-d(**-at**).
 Know-1.SG.DEF the 2.SG.NOM brother-2.DEF.SG(**-ACC**)
 ‘I know your brother.’

based on Rounds (2001: 96, 152), glosses are mine

In the following section, I show that all non-nominative pronouns, including the 3rd person accusative pronouns *őt* ‘him’ and *őket* ‘them’, exhibit the same five properties.

5.2.2 The possessive makeup of non-nominative pronouns

Consider first the examples in (11). As is clear from these examples, the morphological composition of the adessive second person plural pronoun *tinálatok* ‘at you’ is identical to that of the possessive DP with a second person plural possessor *a ti autótok* ‘your car’ (modulo the presence of the definite article in the latter). Observe that, just like the possessee *auto* in (11a), the adessive case marker *nál* in (11b) follows the nominative pronoun *ti* and precedes the marker *-Vtok*.

- (11) a. *a ti autótok* ‘you_{PL}r car’
 a t-i autó -t -ok
 the 2-PL.NOM car -2.DEF -PL
- b. *tinálatok* ‘at you_{PL}’
 t-i nál -at -ok
 2-PL.NOM ADESS. -2.DEF -PL

Let us now examine the other non-nominative pronouns. Their morphological makeup was introduced in the previous chapter, I repeat it here. Regardless of whether a pronoun

contains a case marker or a postposition, non-nominative pronouns are built on the template illustrated in Table 25. Recall that, as discussed in section 4.1.1 of Chapter 4, I take the morphemes *-g/-ø/-t-* to fill PART 2 of accusative pronouns.

Table 25: General makeup of non-nominative pronouns

		PART 1: first set of phi-markers		PART 2	PART 3: second set of phi-markers		
Nb	Pers	Person marker 1	Number marker 1		Phi-/DEF-marker	Person marker 2	Number marker 2
Singular	1	(én)		CASE-MARKER / POSTPOSITION	-Vm		
	2	(te)			-Vd		
	3	(ő)			-i/-(j)a/ -(j)e/LVL		
Plural	1	(m	i)		-(u)n/-(ü)n		-k
	2	(t	i)		-Vt		-Vk
	3	(ő)			-ik/-(j)uk/-(j)ük		

In (12), I provide a concrete example of non-nominative pronouns for each person.

- (12) a. *engem* ‘me’
 en -g -em
 1.SG -ACC -1.DEF.SG
- b. *tetőled* ‘(away) from you_{SG}’
 te -től -ed
 2.SG -ABL -2.DEF.SG
- c. *őneki* ‘to/for him’
 ő -nek -i
 3.SG -DAT -DEF.SG
- d. *mivelünk* ‘with us’
 m-i -vel -ün -k
 1-PL -INSTR -1.DEF -PL
- e. *tinálatok* ‘at you_{PL}’
 t-i -nál -at -ok
 2-PL -ADESS -2.DEF -PL
- f. *őelőjük* ‘toward in front of them’
 ő -elé -jük
 3.PL -toward.in.front.of -DEF.PL

Let us compare the makeup of non-nominative pronouns in Table 25 with that of possessive DPs in Table 24.

With respect to the first property of possessive DPs, non-nominative pronouns display the same personal suffixes as possessed DPs.⁹ That is, what I have called ‘Person/DEF and Number marker 2’ on pronouns is almost identical to the possessor suffixes found on possesseees.¹⁰

Property 2 dealt with the components of possessive DPs and their linear order. Apart from the fact that non-nominative pronouns are never preceded by a definite article,¹¹ their components and the order of the latter are identical to those forming possessive DPs: the case-marker or the postposition in non-nominative pronouns is the stem onto which the second sets of phi-markers suffixes, just like the possessee in possessive DPs is the stem hosting the possessor suffix (Ackerman 1987: 252 - fn6; Den Dikken 2006: 15; Marác 1990: 86; Moravcsik 2003: 161; Dékány 2011: 112, 113-fn7, 182). If the referent of the non-nominative pronoun is emphasized, the stem is preceded by a first set of phi-markers which is identical to the nominative pronoun preceding the possessee in possessive DPs.

Property 3: Just like in possessive DPs, the plurality of a 1st or 2nd person referent is marked twice in non-nominative personal pronouns: once on the first set of phi-markers preceding the case marker or the postpositions and once on the second set of phi-markers. This is shown in (13a, b, c). In (13 a', b', c'), the absence of plural marking in the first set of phi-features leads to ungrammaticality.

⁹ As discussed in Chapter 4, the 3rd person accusative pronouns *ő*t and *ő*ket do not display the DEF-marker in PART 3. I set this aside for now but return to it later on in this section.

¹⁰ There are three differences. The first one is that, while *-i-* marks definiteness in dative pronouns, this allomorph is nowadays not used as a possessor marker in possessive DPs anymore (formerly, *-i-* used to be suffixed on possesseees in possessive DPs as well (Károly 1972: 126)). I assume that *-i* has the same underlying structure as the other DEF-markers but that, in the lexicon of present-day Hungarian, a lexical insertion rule specifies that this allomorph should be inserted on the dative case morpheme *nek*. The two other differences between possessor markers in possessive DPs and the second set of phi-markers in non-nominative pronouns are the following ones. First the vowel linking the second set of phi-markers to the possessee in non-nominative pronouns is always low while the possessor marker in possessive DPs is most of the time linked via a high vowel. Second, the LVL-allomorph of the DEF-marker is used in certain 3rd person singular non-nominative pronouns but it is never used to encode a 3rd person singular possessor in possessive DPs. I address these two differences in section 5.2.3 and show that their source is phonological. They thus do not constitute a counterargument to the claim put forth presently according to which the second sets of phi-markers in non-nominative pronouns are identical to the possessor suffixes in possessive DPs.

¹¹ I assume that the layer(s) spelled out by the definite determiner in possessive DPs is (/are) spelled out within the pronouns.

- (13) a. m-i -nek-ün-k a'. *én -nek-ün-k
 1-PL.NOM-DAT-1.DEF-PL 1.SG.NOM-DAT-1.DEF-PL
 'for/to us'
- b. t-i -vel-et-ek b'. *te -vel-et-ek
 2-PL.NOM-INSTR-2.DEF-PL 2.SG.NOM-INSTR-2.DEF-PL
 'with you_{PL}'
- c. m-i -föLött-ün-k c'. *én -föLött-ün-k
 1-PL.NOM-above-1.DEF-PL 1.SG.NOM-above-1.DEF-PL
 'above us'

Property 4: As illustrated in (14), when a 3rd person non-nominative pronoun refers to a plural entity, the first set of phi-markers cannot be marked for plural. The plurality of the referent is exclusively indicated by Plural marker 2. That is, just like in possessive DPs, anti-agreement is at play.

- (14) a. ő -nek-i-k ; ő -vel-ük ; ő -föLött-ük
 3-PL.NOM-DAT-DEF-PL ; 3-PL.NOM-INSTR-DEF.PL; 3-PL.NOM-above-DEF.PL
 'for THEM'; ; 'with THEM' ; 'above THEM'
- b. *ő-k -nek-i-k ; *ő-k -vel-ük ; *ő-k -föLött-ük
 3-PL.NOM-DAT-DEF-PL ; 3-PL.NOM-INSTR-DEF.PL; 3-PL.NOM-above-DEF.PL

Finally, Property 5 also holds in accusative pronouns: exactly like accusative-marked possessive DPs, 1st and 2nd person singular direct object pronouns display the accusative marker -Vt only optionally (15b). In other persons (15a, b), the accusative suffix has to be present.

- (15) a. Ismer-i ő*(-t) / ők*(-et).
 Know-DEF him / them
 'He knows him /them.'
- b. Ismer engem(-et) / téged(-et) / mink*(-et) / titetek*(-et).
 Know me / you_{SG} /us / you_{PL}
 'He knows me / you_{SG} /us / you_{PL}.'

To sum up, I propose that non-nominative pronouns have the same morphological makeup as possessive DPs with a nominative pronominal possessor. As noted in the introduction to this section, this is in accordance with several authors for all but one piece of data: to my

knowledge, the 3rd person accusative pronouns *õt* ‘him’ and *õket* ‘them’ have *not* been argued to be similar to a possession construction. For instance, while Den Dikken (2004: 465) observes the parallels noted above between possessive DPs and non-nominative pronouns, he also writes the following:

“the third person [accusative] pronominal system is perfectly transparent, and built on the nominative singular pronoun *õ* - the accusative singular is formed by attaching the accusative marker *-t* onto the base form; and the accusative plural features both plural *-k* and accusative *-t*, in that order.”

That is, following Den Dikken, the makeup of 3rd person accusative pronouns would be radically different from that of their 1st and 2nd person counterparts as well as from that of all the other non-nominative pronouns. If 3rd person accusative pronouns were truly different, this would call for an explanation. Recall, however, that I have argued in Chapter 4 that 3rd person accusative pronouns are not the odd-ones-out among personal pronouns: they too are based-generated with a DEF-marker. In terms of what we have seen in the present section, the makeup of 3rd person accusative pronouns is thus also identical to that of a possession construction. In Table 26, I decompose the 3rd person singular accusative pronoun *õt* (line 3a) and its variant *õtet* (line 3b).¹² As can be seen from the comparison with *õ cipõjët* ‘his shoe_{ACC}’ (line 1), the makeup of *õt* and *õtet* is similar to that of an accusative possessive DP. The possessive makeup of *õt* and *õtet* is further shown by comparing these pronouns with the 3rd person singular dative one (line 2) and the 1st person singular accusative one (line 4). The same comparison but with the plural counterparts of all these elements is provided in Table 27. In both tables, grey font is used to illustrate the absence of the DEF-morpheme from 3rd person accusative pronouns after the clausal derivation.

¹² As noted in footnote 1 of Chapter 4, according to Moravcsik (2003: 145), *õtet* is the colloquial form of the standard 3rd person singular accusative pronoun *õt*.

Table 26: The possessive makeup of the 3rd person singular accusative pronoun *ót*

		PART 1: nominative personal pronoun		PART 2	PART 3: possessor marker			PART 4
		Person marker 1	Plural marker 1		DEF-marker	Person marker 2	Plural marker 2	
1	(<i>ő</i>) <i>cipőjét</i> ‘his shoe _{ACC} ’	(<i>ő</i>)		<i>cipő</i>	je			t
2	(<i>ő</i>) <i>nek-i</i> ‘for him’	(<i>ő</i>)		<i>nek</i>	i			
3a	<i>őt</i> ‘him’	<i>ő</i>		<i>ø</i>	je ¹³			t
3b	<i>őtet</i> ‘him’	<i>ő</i>		t	e			et
4	<i>engem(et)</i> ‘me’	en		g	em			(et)

Table 27: The possessive makeup of the 3rd person plural accusative pronoun *őket*

		PART 1: nominative personal pronoun		PART 2	PART 3: possessor marker			PART 4
		Person marker 1	Plural marker 1		DEF-marker	Person marker 2	Plural marker 2	
1	(<i>ő</i>) <i>cipőjüket</i> ‘their shoe _{ACC} ’		(<i>ő</i>)	<i>cipő</i>		jük		et
2	(<i>ő</i>) <i>nekik</i> ‘for them’		(<i>ő</i>)	<i>nek</i>		ik		
3	<i>őket</i> ‘them’		<i>ő</i>	<i>ø</i>		jük		et
4	<i>minket</i> ‘us’	m	i	<i>ø</i>		n	k	et

Observe that under this analysis, in the 3rd person pronoun *őket*, the plural marker *k* and the nominative pronoun *ő* are only adjacent on the surface. As represented in Table 27, just like with other instances of the possession construction with a 3rd person plural possessor, the nominative pronoun which precedes the possessee is not marked for plural (Property 4 of the possession construction). The plurality of the 3rd person referent is only indicated by Plural marker 2 in PART 3 of the pronoun.

In the next section, I turn to the syntactic composition of PART 2 of non-nominative pronouns.

5.2.3 Syntactic status of the case marker

As the data of sections 5.2.1 and 5.2.2 have shown, the case-markers and the postpositions in non-nominative pronouns occupy the same linear position as the possessee in

¹³ I assume that, if the DEF-marker remained within *ót* and *őket*, it would have the form *-je*. First, the vowel *-e* is the one expected on front vowel stems. Second, the linking glide *-j-* must precede the DEF-marker when the latter suffixes onto a vocalic stem, as in *cipő-j-e* ‘his shoe’.

possessive DPs. It is however not clear whether the position of the possessee in nominative pronouns is occupied by the case-markers and the postpositions only or whether the latter are merged over a null noun. In this section, I show that case-markers and postpositions are not themselves the possessee but that they are the lexicalization of a KP embedding a null possessee. That is, I show that the position of the possessee in non-nominative pronouns is occupied by a KP*, rather than by a KP. The data presented will also enable a discussion of the two differences, noted in section 5.2.2, between the second set of phi-markers in non-nominative pronouns and the possessor markers in possessive DPs.

First, the linking vowel with which the the second set of phi-markers suffixes onto case-markers and postpositions in non-nominative pronouns is always low.¹⁴ This is shown in (16) and (17).

- (16) a. nál-**am**; ; nál-**at**-ok
 ADESS-1.DEF.SG ; ADESS-2.DEF-PL
 ‘at me’ ; ‘at you_{PL}’
 b. *nál-**om**; *nál-**ot**-ok

- (17) a. elótt-**ed**; ; elótt-**et**-ek
 in.front.of -2.DEF.SG ; in.front.of -2.DEF-PL
 ‘in front of you_{SG}’ ; ‘in front of you_{PL}’
 b. * elótt-**öd** ; *elótt-**öt**-ök

In possessive DPs, the linking vowel between the possessee and the possessor marker is usually not low. This is illustrated in (18) and (19).

- (18) a. bot-**om** ; bot-**ot**-ok
 stick-1.DEF.SG ; stick-2.DEF-PL
 ‘my stick’ ; ‘your_{PL} stick’
 b. *bot-**am** ; ; *bot -**atok**
- (19) a. kör-**öd** ; kör-**öt**-ök
 circle-2.DEF.SG ; circle-2.DEF-PL
 ‘your_{SG} circle’ ; ‘your_{PL} circle’
 b. *kör-**ed** ; ; *kör-**et**-ek

¹⁴ Except for the dative marker *nek*, as noted in section 4.1.2 of Chapter 4.

The only case where the linking vowel between the possessee and the possessor marker has to be low in possessive DPs is when the possessee is a lowering stem (Törkenczy 2002: 21, 30; Racz 2011: 16). This is illustrated in (20) and (21) with the lowering stems *fog* ‘tooth’ and *fül* ‘ear’.

- (20) a. *fog-am* ; *fog-at-ok*
 tooth-1.DEF.SG ; tooth-2.DEF-PL
 ‘my tooth’ ; ‘your_{PL} tooth’
 b. **fog-om* ; **fog-ot-ok*
- (21) a. *fül-ed* ; *fül-et-ek*
 ear-2.DEF.SG ; ear-2.DEF-PL
 ‘your_{SG} ear’ ; ‘your_{PL} ear’
 b. **fül-öd* ; **fül-öt-ök*

This suggests that case-markers and postpositions behave like lowering stems. Consider now the second difference between the second set of phi-markers in non-nominative pronouns and the possessor markers in possessive DPs. In the former, in the 3rd person singular, the DEF-marker can be the LVL-allomorph (22). This allomorph of the DEF-layer never appears in possessive DPs. Instead, the allomorphs *ja/je* are used (23).

- (22) *ra* → *rá*¹⁵
 SUBL SUBL.3.DEF.SG
 onto ‘onto him’
- (23) *táska* → *táská-ja*¹⁶ ; **táská*
 bag bag-DEF
 ‘bag’ ‘his bag’

The allomorphs *ja/je* of the DEF-marker also have to be used when the possessee is a lowering stem. The use of the LVL-allomorph is not possible (24).

¹⁵ The form *rá-ja* is also possible (Rounds 2001: 124). Also, recall from section 4.3.1.2 in Chapter 4 that LVL applies vacuously when a case marker or a postposition already ends in a long low vowel, as in (i).

(i) *alá* ‘to below’ → *alá* ‘to below him’

¹⁶ The lowering of the stem final *-a* in *táská-ja* is due to the suffixation of the DEF-marker *-ja* and is not itself an instance of the LVL-allomorph (cf. section 4.3.1.2 of Chapter 4, ex. (11)).

- (24) a. fekete → fekete-je ; *feketé
 black black-DEF
 'his black one'
 b. durva → durvá-ja ; *durvá
 rude rude-DEF
 'his rude one'

This appears to contradict the suggestion made just above that case-markers and postpositions behave like lowering stems. But I suggest that this is not the case. Instead, this latter fact shows that case-markers and postpositions in non-nominative pronouns behave like a subcategory of lowering stems, inflectional morphemes. As noted in Siptár & Törkenczy (2000: 229), all inflectional morphemes lower the linking vowel of their suffixes. Compare, for instance, the linking vowels in (25). In the present tense, the definite first person singular marker *-Vm* suffixes directly onto the verbal stem (25a). The linking vowel is not lowered. In the past tense, the same marker attaches to the inflectional morpheme *-t* and its linking vowel is lowered (25b).

- (25) a. ad-om ; *ad-am
 give-1.SG.DEF
 'I give it.'
 b. ad-t-am ; *ad-t-om
 give-PAST-1.SG.DEF
 'I gave it.'

Now, consider the inflectional morpheme *na/ne*, which encodes the conditional mood. When a DEF-layer is suffixed onto it, it is the LVL-allomorph which appears, not the allomorphs *ja/je* (26).

- (26) a. talál-ná ; *talál-na-ja
 find-CDN.DEF
 'He would find him.'
 b. szeret-né ; *szeret-ne-je
 love-CDN.DEF
 'He would love him.'

Thus, case-markers/postpositions in non-nominative pronouns behave like inflectional morphemes: (i) they lower the vowel of their suffixes and (ii) when only DEF is suffixed is

suffixed to a vowel final stem the LVL-allomorph appears, not *ja/je*. If case-markers and postpositions in non-nominative pronouns have the status of inflectional morphemes, it is reasonable to postulate that they spell out a KP which embeds a null noun. That is, the data presented above suggests that what occupies the same position in non-nominative pronouns as the possessee in possessive DPs is a KP*.¹⁷ Importantly, the data in (22) to (26) has also shown that the few differences existing between the second set of phi-markers in non-nominative pronouns and possessor markers in possessive DPs seem to be triggered by the category of the stem on which they are suffixed. If they attach to a case-marker or a postposition, i.e., an inflectional morpheme, they may be spelled out by the LVL-allomorph and their linking vowel is lowered. If they are suffixed on nouns, the LVL-allomorph is not available and their linking vowel is not lowered (unless the noun is a lowering stem). These differences are thus not indicators of underlying structural differences between the second set of phi-markers in non-nominative pronouns and the possessor markers in possessive DPs. I conclude from this and from the data examined in sections 5.2.1 and 5.2.2 that these markers are the spell-outs of the same underlying structure.

Let us summarize. As noted in the introduction, most non-nominative pronouns derive from possessive DPs. Though the interpretation of non-nominative personal pronouns is not that of possessive DPs anymore, I have shown that the morphological makeup of all non-nominative personal pronouns is that of a possession construction in which the structural position of the possessee is occupied by a KP*. I will therefore simply refer to the case markers or postpositions as the ‘KP*possesseees’ and to the second set of phi-features as the ‘possessor marker’.

In section 5.3, I propose a base-generated structure for the possession construction, and thus, for non-nominative personal pronouns.

5.3 The syntactic structure of (pro)nominal possession

In this section, I turn to the base-generated structure of non-nominative pronouns. Starting from on Caha (2009)’s case sequence presented in Chapter 2, I propose in section 5.3.1 that possessors are pronouns embedded under a genitive KP. In sections 5.3.2 and 5.3.3, I provide empirical data in favor of this proposal. In 5.3.4, I elaborate on the nanosyntactic structure of the genitive KP possessor.

¹⁷ The fact, noted in É. Kiss (2002: 189), that some case-markers and postpositions derive from case marked nouns provides suggestive evidence for this hypothesis.

5.3.1 Possessors as base-generated genitive KPs*

I have shown in the previous section that the morphological makeup of Hungarian non-nominative pronouns is similar to that of possessive DPs. Proposals as to the base-generated structure of possessive DPs abound. Szabolcsi (1992: 12), for instance, argues that the possessor in Hungarian is externally merged as a sister of the possessee and that it raises to the specifier of an agreement projection where it is assigned nominative case. The possessee raises as well and collects the agreement morphemes in various functional heads. Bartos (1999, cited in É. Kiss 2002: 159-160) and Dékány (2011: 172) argue that the possessor is merged in a PossP, the head of which takes the possessee as its complement. A similar structure is proposed on the basis of data from other languages in Alexiadou (2005: 791) and references therein. Den Dikken (1995: 111-180, 1998b: 14, 1999: 144-154) argues that, universally, the source of possessive DPs is a Small Clause. The subject of the Small Clause is the possessee, the predicate is a dative PP. The possessor is the complement of the dative preposition (27).

(27) [_{SC} POSSESSUM [_{PP} P_{dat} POSSESSOR]] Den Dikken (1999: 153, his (28))¹⁸

As discussed in Chapter 2, Caha (2009: 142) argues that arguments are externally merged with the case layers required by their theta-role. For the case at hand, base-generated possessors are merged with three case layers on top of them: genitive, accusative and nominative (Caha 2009:71, 103-104, 108-110, 189-190). For instance, the base-generated structure of the possessors *of the king* in (28a) and *Petra* in the Czech example (28b) is as represented in (29).¹⁹

(28) a. The sceptre of the king.

b. To auto je Petr-a

That car is Peter-GEN

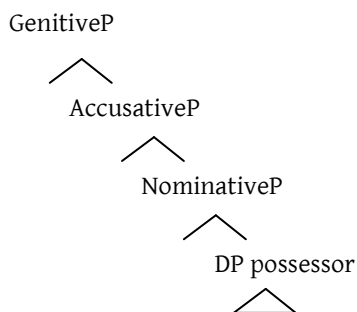
‘This car is Peter’s (lit. of Peter).’

Caha (2009: 189, his (6))

¹⁸ Den Dikken’s ‘possessum’ corresponds to what I call here ‘the possessee’.

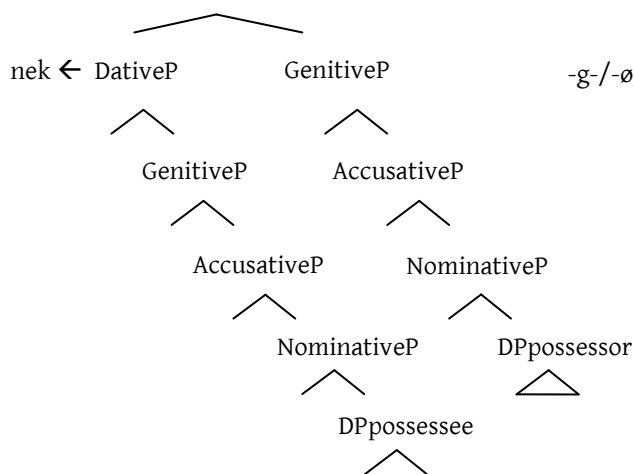
¹⁹ For a different take on English *of*, see Den Dikken (1997: 137, 144).

(29) Structure of base-generated possessor arguments

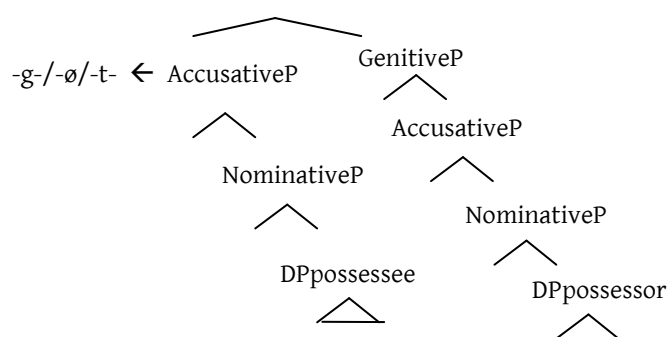


In the present work, I follow Caha (2009) and I assume that, in Hungarian non-nominative pronouns, the possessor is embedded under a genitive KP. I assume that this genitive KP* is merged as a sister of the possessee,²⁰ which in Hungarian non-nominative pronouns is the KP*possessee, lexicalized by a case marker, a postposition or *-g/-ø/-t-* in accusative pronouns, as we have seen in section 5.2.2. This gives us the base-generated structures in (30a) and (30b) for the dative and accusative personal pronouns respectively:²¹

(30) a. Base-generated structure of dative personal pronouns



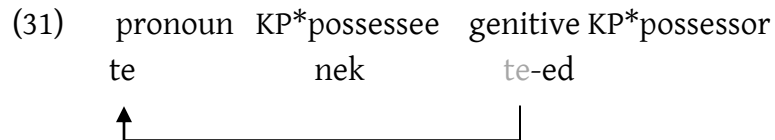
b. Base generated structure of accusative personal pronouns



²⁰ I leave it open what the label of the mother node is. Alternatively, the KP*possessee could be in the specifier of, or adjoined to the genitive KPpossessor. I will use the notion of sisterhood and leave a precise implementation of this notion for further investigation.

²¹ As explained Chapter 2, Caha (2009: 25-36) argues that the only difference between prepositions and case-markers is the height to which nouns raise in the case sequence. In that sense, the structures in (30) are similar to the one proposed in Den Dikken (1999: 153) since the case layers above the possessor in (30a, b) can be seen as corresponding to Den Dikken's preposition (though data presented below leads me to follow Caha (2009) and to assume that the possessor is embedded under a genitive KP rather than under a dative KP).

Anticipating on the discussion of section 5.4, the order of the morphemes in the possession construction presented in section 5.2.1 and 5.2.2 is derived from the base-generated structure in (30) as follows: the lower part of the genitive KP*possessor is attracted to a position above the KP*possessee. The higher part is stranded in its base-generated position. The lower part is subsequently spelled out by the pronoun which precedes the possessor. The stranded part is spelled out by the possessor marker. Schematically, the derivation of *teneked* ‘for/to you_{SG}’, for instance, can be represented as in (31).



I now provide a piece of empirical evidence for each of the two assumptions made until now: the base-generated possessor is a pronoun (5.3.2), the possessor pronoun is embedded under a genitive KP (5.3.3).

5.3.2 Diachronic evidence

Comrie (1980) argues that in Turkic, Mongolian and Uralic languages, possessor suffixes frequently developed from a reduced pronominal possessor suffixed onto a nominal possessee. One example comes from Buryat, a Mongolian language. In Buryat, the possessor suffixes on possesseees are agglutinated, more or less reduced genitive pronouns. Table 28 contains the paradigm of the independent genitive pronouns and their suffixed counterpart in Buryat. In (32) two variants of a possessive DP are reproduced: in (32a), the independent genitive pronoun precedes the possessee, in (32b), the possessor is represented by a suffixed, morphologically reduced form of the genitive pronoun. (32c)(32) shows that the co-occurrence of the full possessor pronoun and the possessor suffix is ungrammatical.

Table 28: Genitive pronouns and personal markers on possesseees in Buryat (Comrie 1980: 88, Fuss 2004: 292)

Number	Person	genitive pronouns	possessor suffixes
singular	1	mińĩ	-m(ni), -ni
	2	šińĩ	-š(ńĩ)
	3	INÜ ²²	-(i)ń
plural	1	manai	-(m)nai
	2	tanai	-tnai
	3	INÜ	-(i)ń

(32) a. mińĩ axa

I.GEN elder.brother

b. axa-m(ni) ²³

elder.brother-1.SG

Both: ‘my elder brother’

c. * mińĩ axa-m(ni)

Comrie (1980: 89)

According to Károly (1972: 126), a similar development took place in Hungarian: possessor markers developed from postposed pronominal possessors, which agglutinated onto the possessee. The original paradigm is given in (33).²⁴

(33) Singular possessor Several possessors

1.SG	-m	}	+ -k
2.SG	-t		
3.SG	-s-vowel		

adapted from Károly (1972: 126), see also Hajdú (1972: 40, 44)

Károly provides the following examples from the *Funeral Sermon and Prayer* (the oldest available Hungarian text:

(34) a. uro-m-k

lord-1-PL

‘our lord’

b. ise-mü-k

ancestor-1-PL

‘our ancestor’

Károly (1972: 126), glosses are mine

²² Comrie points out that the genitive pronoun *inü* ‘his, her, its, their’, from which the possessor suffix *-(i)ń* derives, is not used in Modern Mongolian languages such as Buryat but existed in Classical Mongolian.

²³ Comrie (1980: 90) claims that the suffixation of the genitive pronominal possessor in (32b) arose from the unusual order ‘possessee-possessor’ in Classical Mongolian, which occurred when the possessor was non-emphatic.

²⁴ Unfortunately, Károly does not provide examples of these morphemes used as independent pronouns.

Károly further claims that these personal pronouns underwent phonological changes: *-t* turned into *-d* in the singular and *-m* became *-n* in the plural. The *-s* formerly present in the case of a 3rd person possessor disappeared, leaving only a vowel. This vowel was later supplemented by a /j/, which nowadays appears when the possessor marker is suffixed to vowel-final stems and to some consonant-final stems (Rounds 2001: 141-143).

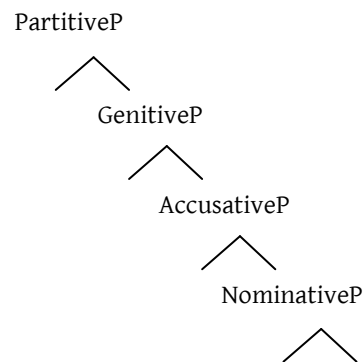
Following Károly, I assume that the source of the possessor suffix is a pronoun. I propose that this pronoun is merged as a sister of the possessee (see Ackerman 1987: 236-240 for a similar view and section 5.4.2 for further discussion). In the next section, I argue that the possessor is embedded under a genitive KP.

5.3.3 Evidence from syncretism

I proposed in section 5.3.1 that Hungarian possessor suffixes are base-generated as genitive KPs*. There is however no clear morphological clue for this claim because no overt morpheme seems to spell out the KP. In this section, I show that evidence for this claim can however be found in the domain of syncretism.

Caha (2009: 113-118) demonstrates that the structure of case-markers which express partitivity is made up of a partitive case layer built on top of a genitive KP.

(35) Partitive KP



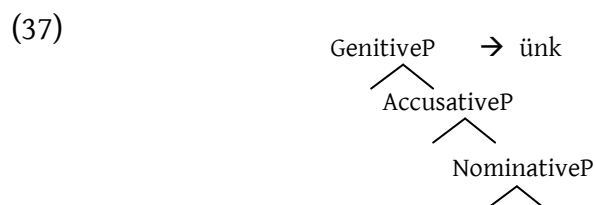
based on Caha (2009: 117-118, his (40), (42))

That is, a KP cannot give rise to a partitive meaning if it is not composed of a partitive case layer on top of a genitive KP.

Now, the crucial observation is that, when a possessor marker is suffixed onto a numeral in Hungarian, a partitive reading may arise. As illustrated in (36), the suffixation of the possessor suffix *-ünk* on the numeral *öt* ‘five’ gives rise to an ambiguous interpretation: both a possessive (36a) and a partitive reading (36b) are available.

- (36) (a mi) öt-ünk
 (the 1PL.NOM) five-1PL
 a. 'our five ones'
 OR
 b. 'five of us'

The reasoning goes as follows. First, in Caha's system, the partitive reading which arises in (36b) results from the generation in the syntax of the partitive KP in (35), in which a partitive case layer is built on top of a genitive KP. Second, the same morphemes, such as -*ünk* in (36), when suffixed onto a numeral, can convey either a partitive or a possessive meaning. That is, there is a syncretism between partitive -*ünk* and possessive -*ünk*. Third, in nanosyntax, syncretisms can only arise between two morphemes if they spell out constituents that are in a subset/superset relation to one another (cf. Chapter 2). Thus, if -*ünk* can spell out the partitive structure in (35) and also give rise to a possessive interpretation, it means that when possession is expressed, the structure which is built in the syntax is a subset of the partitive structure. I assume that, when the suffix -*ünk* triggers the possessive interpretation, this subset is a genitive KP (37).²⁵



Though no partitive or genitive case marker is visible in Hungarian, the syncretism between partitive -*ünk* and possessive -*ünk* is the same as that existing between partitive and genitive case suffixes in languages such as Czech (38) and between partitive and genitive prepositions in languages such as French (39).

- (38) a. sklenice dívk-y
 glass girl-GEN
 'the glass of the girl' Radek Šimík (p.c.)
 b. sklenice vod-y
 glass water-GEN
 'a glass of water' Caha (2009: 111, his (27a))

²⁵ The layers corresponding to the phi-features of the possessor suffix will be added to this structure in the following section.

- (39) a. le verre **de** la fille
 ‘the glass of the girl’
 b. un verre **de** lait
 ‘a glass of milk’

5.3.4 Base-generated structure

I have argued above that, in the possession construction, the possessor is merged as a genitive KP* sister of the KP*possessee. I now address the fact presented in section 5.2 that the phi-features of the possessor are displayed twice.²⁶ I repeat an example in (40).

- (40) **m-i** -vel -ün-k
 1-PL.NOM-INSTR-1.DEF-PL
 ‘with us’

In order to represent this fact, I assume that the phi-features of the possessor are not only present below the nominative case layer but that they are reduplicated within the case sequence. More precisely, I assume that the phi-features of the possessor are reduplicated between the genitive and the accusative case layers (the discussion and the additional data which will substantiate this assumption have to await section 5.4.4). Additionally, as is widely accepted since Benveniste (1966: 228-231, 236, 251, 255-256), “the 3rd person is not a person” and the role of 3rd person inflectional and pronominal forms is “to express the non-person” (Benveniste 1966: 228). I thus assume, similarly to Starke 2013, that the structure of the 3rd person personal pronouns does not contain any person layer.²⁷

We now have the following ingredients for the base-generated structure of non-nominative pronouns:

- (i) The KP*possessee takes the genitive KP* possessor as its sister.
- (ii) As argued in section 4.4 of Chapter 4, a definiteness layer is merged on top of the person layer. In 3rd person pronouns, there is no person layer, only a definiteness layer.
- (iii) In the genitive KP, the phi-features and the definiteness feature of the possessor layers are merged twice: once below the nominative layer, once in between the accusative and the genitive layers.

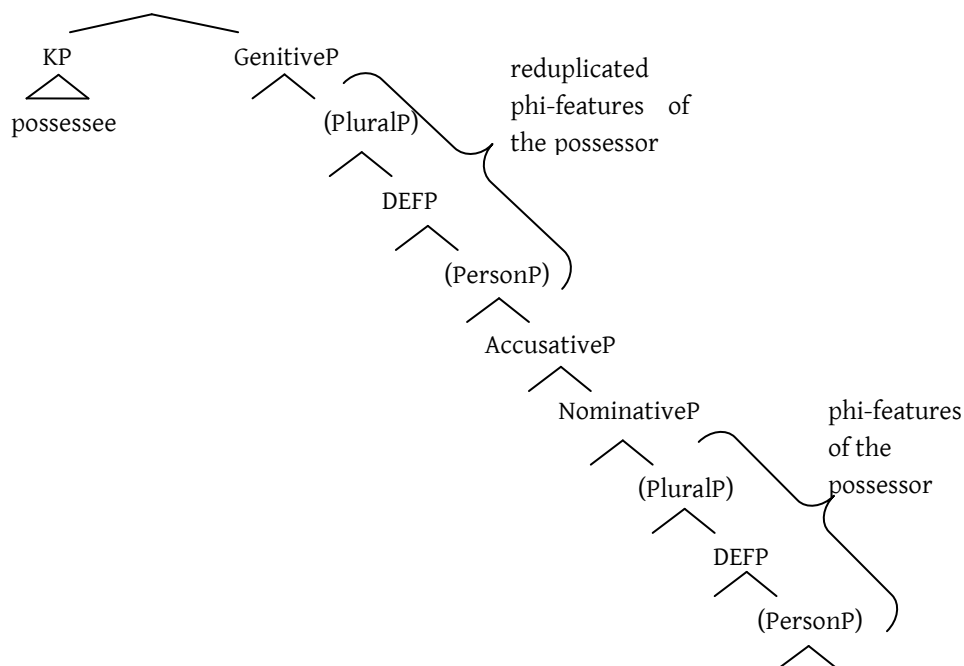
²⁶ I set aside the missing plural marker of 3rd person plural possessors for now and come back to it in section 5.4.5.3.

²⁷ For other formal implementations of Benveniste’s insight, see for instance Adger & Harbour (2007), Anagnostopoulou (2005), Den Dikken (2006: 8), Lyons (1999: 317-319), Harley & Ritter (2002: 486-488) and Nevins (2007).

Additionally, similarly to Starke (2013), I assume that a plural layer is merged on top of the definiteness and person layers when there is more than one possessor. As discussed in section 5.2.1, a singular interpretation results from the absence of a number layer in the structure.

This yields the structure in (41).

(41) Base-generated structure of non-nominative personal pronouns



In the next section, I discuss how the surface order of the morphemes in the possession construction is derived from the base-generated structure in (41).

5.4 Derivation of non-nominative pronouns

The base-generated structure being in place, I provide a first sketch of the derivation of non-nominative pronouns in section 5.4.1, taking accusative pronouns as examples. To do so, I make a number of assumptions which I discuss in sections 5.4.2 to 5.4.4. In sections 5.4.5 to 5.4.7, I provide a nanosyntactic derivation of non-nominative pronouns and discuss its implications for the analysis of the pronoun's morphological makeup. Ultimately, the derived structure of non-nominative pronouns will enable an understanding of the following facts: (i) the definiteness layer fails to be spelled out within 3rd person singular and plural accusative pronouns but is spelled out on finite verbs, (ii) 1st and 2nd person

pronouns display two person-DEF morphemes and do not trigger the use of the definite conjugation.

5.4.1 Sketch of the derivation

Recall the linear order of the elements composing non-nominative personal pronouns: the KP*possessee is preceded by a nominative pronoun which refers to the possessor and suffixed by a marker which also spells out the phi-features of the possessor. This is illustrated again in (42).

(42) a. *engem* ‘me’

en -g -em (-et)
 1.DEF.SG.NOM -KP*possessee -1.DEF.SG (-ACC)

b. *minket* ‘us’

m -i -ø -n -k -et
 1.DEF -PL.NOM -KP*possessee -1.DEF -PL -ACC

c. *tinektek* ‘for/to you_{PL}’

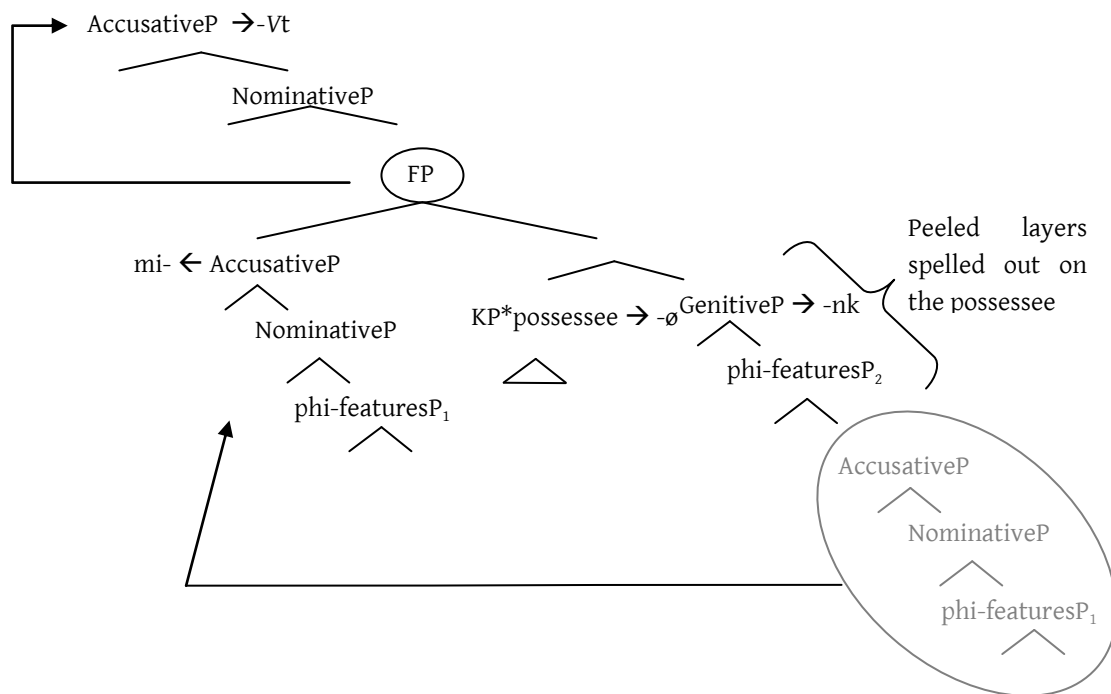
t -i -nek -t -ek
 2.DEF-PL.NOM -KP*possessee -2.DEF -PL

In the structure in (41), the two sets of phi-feature layers associated with the possessor are base-generated in the same genitive KP*. In the derived pronouns in (42), the morphemes which spell out these two sets are separated from each other by the possessee. To derive this ordering, I propose that in the course of the derivation of non-nominative pronouns, the lower phi-portion of the genitive KP* in (41) raises over the possessee, thus stranding the upper phi-portion. More precisely, I assume that the accusative subconstituent of the genitive KP* possessor raises to a functional projection FP and strands the remaining genitive constituent together with the reduplicated set of phi-feature layers. In nanosyntactic terms, the reduplicated phi-feature layers and the genitive layer are ‘peeled’ (cf. Chapter 2). This derivation captures the fact that these layers are spelled out as a suffix on the KP*possessee. At this point, the derivation of non-nominative pronouns is complete, except that of accusative pronouns. As we have seen in section 5.2.2, accusative pronouns are suffixed by the accusative marker -Vt, like accusative marked possessive DPs. I repeat the paradigm of accusative personal pronouns in (43).

- (43) engem(et) ‘me’
téged(et) ‘you_{SG.ACC}’
õt ‘him’
minket ‘us’
titek et ‘you_{PL.ACC}’
õket ‘them’

I therefore assume that the whole FP of accusative pronouns is embedded under an accusative KP and that it moves to the specifier of this KP (this last step does not occur with the other non-nominative pronouns).²⁸ The derivation is illustrated in (44). I take the 1st person plural accusative pronoun *minket* in (42b) as an example. I replace the phi-features layers of the possessor, i.e. the sequence [PluralP[DEFP[PersonP]]], by ‘phi-features_{P₁}’ and their reduplicated counterparts by ‘phi-features_{P₂}’.

- (44) Sketch of the derivation of the 1st person accusative personal pronoun *minket*



²⁸ See footnote 51 for an alternative proposal.

5.4.2 Intermediate summary and discussion

In section 5.2, I have shown that the morphological makeup of non-nominative pronouns, including the 3rd person accusative pronouns, is that of a possession construction. In section 5.3, I have argued that the possessor is base-generated as a genitive KP* sister of the KP*possessee. In this genitive KP*, the phi-feature layers of the possessor are merged twice. In the course of the derivation, the genitive KP* is split. As a result, the KP*possessee is flanked by two morphemes both of which spell out the phi-features of the possessor: the accusative KP* on the left and the stranded genitive and reduplicated phi-feature layers on the right.

I have also proposed that the genitive KP* is a pronominal KP*. As mentioned in section 5.3.1, Károlly (1972: 126) and Ackerman (1987: 236-240) argue, from a diachronic and a synchronic point of view respectively, that the possessor suffixes in Hungarian are incorporated pronouns. On the one hand, my analysis is in line with theirs in that the source of the possessor suffix is a pronoun in both analyses. On the other hand, my analysis diverges from that of Károlly and Ackerman. While they take the possessor suffix in and of itself to be a pronoun, I argued that it is only a subpart of a pronoun. The other part is the pronoun which precedes the possessee at the end of the derivation of the possession construction. Károlly and Ackerman, do not draw any structural link between the pronoun preceding the possessee and the possessor suffix.

In the next sections, I discuss a number of assumptions which I have made in the derivation of non-nominative pronouns in section 5.4.1. In section 5.4.3, I briefly address the status of the functional projection FP to which the lower part of the genitive KP* raises. In section 5.4.4, I discuss the claim that the phi-feature layers of the possessor are reduplicated in between the genitive and the accusative case layers. In section 5.4.5, I develop a more precise, nanosyntactic derivation of non-nominative pronouns. In section 5.4.6, I show how this structure captures the presence of DEF-marking on finite verbs with 3rd person pronouns and its absence with 1st and 2nd person pronouns. In section 5.4.7, I provide support for the claim that the pronoun which precedes the KP*possessee at the end of the derivation of non-nominative pronouns, such as *mi* in (42b), is an accusative rather than a nominative pronoun.

5.4.3 The functional projection FP

The precise identification of the landing site of the lower part of the KP*possessor is not crucial for what follows. I briefly mention some suggestions made in the literature but will not take a stand on this matter.

There is a relative consensus in the generative literature that a possessor pronoun which precedes the possessee (henceforth “pre-possessee pronominal possessor”) in non-nominative pronouns raises from a lower position. As already mentioned at the beginning of section 5.3, the remaining debate revolves around the precise position in which the possessor is base-generated and the position in which it lands.

Szabolcsi (1992: 7, 11) notes that traditional grammars refer to the Hungarian pre-possessee pronominal possessor as a “possessive modifier”. She observes, however, that this pronoun shares properties with subject pronouns: they are morphologically identical²⁹ and they are dropped unless their referent is emphasized. Also, according to Szabolcsi, they trigger the appearance of the possessor suffix on the possessee in the same way as subjects trigger agreement on the finite verb (see also Kornai 1985). Szabolcsi therefore suggests that pre-possessee pronominal possessors raise to a subject-like, AgrP position within the DP. This position is lower than D, which Szabolcsi (1992: 31-35) considers to be the nominal counterpart of the clausal C head. Den Dikken (1999: 154-160) argues against Szabolcsi (1992)’s proposal and argues that the pre-possessee pronominal possessor raises to a projection FP above the possessee but lower than AgrS. Dékány (2011: 172-174) argues that there are two possession phrases PossP within the DP. The pre-possessee pronominal possessor is base-generated in the lower one and raises to the higher one. Puskás & Ihsane (2001: 49) argue for a split-DP in the vein of Rizzi (1997)’s split CP. According to them, the pre-possessee pronominal possessor raises to a Focus projection similar to that found in the left-periphery of the clause.

To sum up, my analysis is in accordance with the literature in that it takes the pre-possessee pronominal possessor to raise from a lower position. There is however no consensus as to the precise landing site of this pronoun.

In the following section, I provide support for the base-generated structure of the KP*possessor in (41) and for the derivation of non-nominative pronouns sketched in (44).

5.4.4 Support for the hypothesis

I proposed in section 5.3.4 that the base-generated structure of Hungarian non-nominative pronouns consists of a KP*possessee which takes a genitive KP* possessor as its sister. The phi-features of the possessor are reduplicated between the genitive and the accusative layers of the genitive KP*. In section 5.4.1, I assumed that the genitive KP* splits in the course of the derivation. I now provide further evidence for this analysis. In section 5.4.4.1,

²⁹ The only difference is that 3rd person plural pre-possessee pronominal possessors do not display the plural marker *-k* while 3rd person plural subject pronoun do. Szabolcsi (1992) does not address this fact, but see Den Dikken (1999: 154-160) as well as section 5.4.5.3 below for proposals.

I present Taraldsen's nanosyntactic analysis of Bantu class markers according to which chunks of structural layers in DPs may reduplicate. In sections 5.4.4.2 and 5.4.4.3, I show that the makeup of possessive DPs with pronominal possessors in English and in certain Hungarian dialects supports the analysis proposed for their Standard Hungarian counterparts.

5.4.4.1 Reduplication in Bantu

The idea that certain projections of the nominal extended projection may reduplicate has been proposed by Taraldsen (2010, 2012), who studies the nanosyntactic structure of noun-class markers in several Bantu languages. I first give the relevant Bantu data and then present Taraldsen's proposal that structural layers may reduplicate.

Bantu nouns are preceded by a noun-class marker indicating to which class a noun belongs. Consider the Xhosa examples in (45). The noun 'Zulu' belongs to class 1. This is indicated by the presence of the prefix *um-*. The noun 'stick' belongs to class 11 and is therefore prefixed by the morpheme *ulu-*.

- | | | | |
|------|-------------------|-------------------|--|
| (45) | a. <i>um-Zulu</i> | b. <i>ulu-thi</i> | |
| | 1-Zulu | 11-tree | |
| | 'a Zulu' | 'a stick' | Xhosa, Taraldsen (2010: 1523, his (2a, b)) |

Swahili class 1 nouns are prefixed by *m-* (46a). The prefix *ki-* indicates the appartenance of a noun to class 7 (46b).

- | | | | |
|------|----------------|------------------|--|
| (46) | a. <i>m-tu</i> | b. <i>ki-atu</i> | |
| | 1-person | 7-shoe | |
| | 'person' | 'shoe' | Swahili, Carstens (2008: 133, her (4)) |

Observe also that the form of a class marker also depends on the number of the referent of the noun. For instance, the plural forms of the examples given above are as follows. The plural of the Xhosa noun 'Zulu' is indicated by the marker of class 6 *ama-* (47a). The plural of the noun 'tree' is indicated by the class 10 prefix *izin-* (47b). In Swahili, the class 2 prefix *wa-* and the class 8 prefix *vi-* are used when one refers to more than one entity, which, in the singular, belongs to class 1 and 7 respectively (48).

- | | | | |
|------|--------------------|-------------------|---|
| (47) | a. <i>ama-Zulu</i> | b. <i>izin-ti</i> | |
| | 6-Zulu | 10-tree | |
| | 'Zulus' | 'sticks' | Xhosa, Taraldsen (2010: 1524, his (4), (5)) |

- (48) a. wa-tu b. vi-atu
 2-person 8-shoe
 ‘people’ ‘shoes’ Swahili, Carstens (2008: 133, her (4))

This means that class markers not only spell out the class of a noun but also its number.

Taraldsen (2010) demonstrates that noun-class markers, even when they are monomorphemic, spell out several structural layers. For instance, *izin-*, the Xhosa marker of class 10 in (47), spells out at least five layers:³⁰

- [illegible]

adapted from Taraldsen (2010: 1536, his (60))

Taraldsen (2012: 5) observes that when Xhosa class-markers contain two vowels, the two vowels are always identical. This is shown in (50). Observe that in total there are three different vowels: *a*, *i* and *u*. Which one occurs depends on the class of the noun and thus also on its number. For instance, as seen in (45b) and (47b), the noun ‘tree’ takes the class 11 prefix **ulu** in the singular and the class 10 prefix **iziN** in the plural.

- (50) Xhosa two-vowels class markers

Class 2 aba-

4 imi-

5 i(li)-

6 ama-

7 isi-

8 izi-

10 iziN/iiN-

11 u(lu)-

14 ubu-

15 uku-

Taraldsen (2012: 1)

³⁰ Here as well as below, the labels of the layers need not concern us. Also, reproducing the way Taraldsen arrives at this decomposition would bring us too far afield.

Taraldsen (2012: 6, 8) assumes that the structure which is spelled out by the right-most vowel of these prefixes projects twice. That is, there is reduplication of a part of the nominal functional sequence. Take for instance *aba-*, the prefix of class 2: the layer called ‘aug₂’ to the immediate left of the noun *ntwana* ‘child’ in (51) is spelled out by *-a-*. This morpheme reappears on the very left, which, according to Taraldsen, is a clue for the reduplication of the ‘aug₂’-layer (52).³¹

(51) *aba-ntwana*

2-child

‘children’

(52) [**aug₂** [*ac₂* [*sc₂* [**aug₂** [*ntwana*]]]]]]

Taraldsen (2012: 6, his (38))

As already pointed out, the form of the morphemes which spell out the ‘aug’-layer varies in function of the class and of the number of a noun. From the perspective adopted in this thesis, according to which phi-features project their own layers, it means that ‘aug’-morphemes spell out a set of layers, rather than a single layer. In particular, it must spell out class and number layers. In turn, as the structure spelled out by the ‘aug’-morphemes reduplicates, it means that phi-features layers reduplicate.³²

The reason and the mechanism underlying the reduplication of a chunk of structure remains to be understood.³³ Bantu class-markers and Taraldsen’s analysis thereof however constitute interesting parallels to Hungarian pronominal possessors and to my claim that phi-features may reduplicate within a constituent.

I now discuss the makeup of English possessive determiners and possessive pronouns and show that it provides further support for the phi-feature reduplication analysis of Hungarian pronominal possessors.

³¹ Taraldsen (2010: 1526-1528) argues that the left-most ‘aug₂’ is a D-type head, which is, however, not necessarily linked to a definiteness interpretation. Visser (2008: 15-17) argues that the presence of this vowel goes hand in hand with the interpretation of the referent of the noun as specific.

³² Note that noun-classes are often considered to be the Bantu counterpart of genders in Indo-European languages (Carstens 2008: 132-152, Taraldsen 2010: 1524, Corbett 1991: 43-49) and can thus be considered as a type of phi-feature.

³³ Taraldsen (2012) does not say how reduplication is to be understood. Neither can I offer a formal implementation. Whether this is a matter of concord, for instance, remains to be investigated. An alternative would be to assume that the multiple presence of the same structural chunk is dictated by the nominal functional sequence.

5.4.4.2 Evidence from English

Den Dikken (1998: 102) and Bernstein & Tortora (2005: 1222-1225) observe the morphological similarity between English possessive determiners³⁴ and the copula *be* agreeing with a nominative personal pronoun:

(53) *hi-s* \approx *he is* ^{35, 36}

it-s \approx *it is*

ou-r \approx *we are*

you-r \approx *you are*

thei-r \approx *they are*

On the basis of this similarity, Bernstein & Tortora propose that English possessive determiners are composed of a nominative pronoun and of an agreeing, reduced form of the copula *be*. They propose the derivation reproduced in (54): the copula heads a projection FP and takes in its complement a nominative pronoun which refers to the possessor. This pronoun then raises to the specifier of the projection headed by the copula. The specifier-head relation created gives rise to agreement in number between the possessor and the copula. Subsequently, the nominative pronominal possessor raises to the specifier of the D head.³⁷

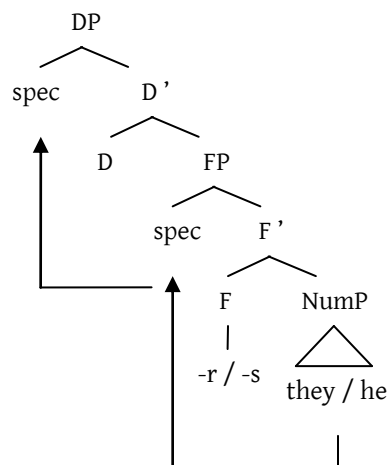
³⁴ Forms such as *your* in *your book* are often referred to as *possessive pronouns*. I will call these forms *possessive determiners* because they are followed by an overt possessee. I reserve the term *possessive pronoun* for possessive forms such as *yours*, which replace a noun and thus appear without an overt possessee.

³⁵ Bernstein & Tortora (2005: 1223) take the form *her* to be suppletive. See below for a discussion of this assumption and of the lack of homophony between *his* and *he's* on the one hand and between *our* and *we're* on the other hand.

³⁶ I point out that *my* [maɪ] is also phonologically close to *am I* [amaɪ]. Agreement between the copula and the pronominal possessor might thus also involve the person feature of the pronoun. This would make Bernstein & Tortora's parallel between the structure of the possessive pronoun and the agreement between a subject pronoun and the copula *be* even more isomorphic than they originally propose. However, it would remain unclear why the order of the morphemes in *m-y* seem to parallel the order 'copula-subject' in *(a)m I* while the morphemes in the other possessive pronouns follow the order 'subject-copula': for instance, *you-r* and *hi-s* follow the order in *you are* and *he is*, respectively.

³⁷ Bernstein & Tortora (2005: 1228, fn 16) represent the nominative possessor at the bottom of their structure but point out that this possessor might originate lower, as Den Dikken (1995, 1999) proposes.

(54)



Bernstein & Tortora (2005: 1224, their (9))

If Bernstein & Tortora are right in claiming that the form of the suffix *-r/-s* varies in function of the number of the possessor, this means that, within possessive determiners, the plural feature is instantiated twice. I propose to reformulate this fact in terms that are more compatible with the Nanosyntactic framework, in which all features head their individual projection: The structure of English possessive determiners, like that of their Hungarian counterparts, contains two identical number layers: in *your*, for instance, one plural layer is spelled out by *you-* and the other is spelled out by *-r*.³⁸

While it is true that the forms *-s* and *-r* resemble the reduced forms of the conjugated copula *be*, there is no additional evidence for the presence of a copula and thus for the occurrence of specifier-head agreement within English possessive determiners. First, the conjugated copula *be* not only spells out the phi-features of the agreement controller but also tense and mood features. Possessive determiners, on the contrary, do not contain any tense or mood features. Second, Bernstein & Tortora (2005: 1225) assume that the possessive meaning of the possessive determiner results from the agreement relationship between the nominative pronoun and the copula. However, when a copula agrees with a nominative pronoun, such as in predicative and equative copular sentences in (55), no possessive meaning arises.

- (55) a. You are a journalist.
b. She is Mary Thoms.

To express possession, there need to be two *distinct* entities: a possessor and a possessee. This is not the case in (55). In order to obtain a possessive interpretation in the presence of

³⁸ If the suggestion in footnote 36 above is correct, English possessive determiners contain two person layers as well. In *my*, for instance, one person layer is spelled out by *m-* and the other by *-y*.

(56) a. Jánàa **dà** kúdí.
 he.is **with** money
 ‘He has money’ Hausa, Creissels (1996: 152, fn 2)

 b. Hann er **með** horn.
 he is **with** horn.ACC.PL
 ‘He has horns.’ Icelandic, Stolz (2001: 334, his (15))

³⁹ Thanks to Milan Řezáč for bringing these data to my attention.

⁴¹ In Hungarian, dative possessors are used both in predicative (57a) and in attributive position (cf. i.a) (for accounts of dative marking on possessors in attributive position, see Szabolcsi (1992) and Den Dikken (1999)). Unmarked possessors can only be used in nominal possession (i.b), they cannot appear with a copula (iib). This confirms the idea put forth in this section according to which in the presence of a copula, one of the two DPs must be oblique in order to obtain a possessive interpretation. Conversely, if the two referents of a possession construction are unmarked, there can be no copula.

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b. **Mihi** est gladius.
 me.DAT is.PRES.3.SG sword.NOM
 'I have a sword.'

Latin, de Acosta (2011: 155, his (22))

These examples show that, in order to encode a possessive interpretation in the presence of a copula BE, either the possessee or the possessor should be marked oblique. In Bernstein & Tortora's analysis, the morpheme *you* in *your*, for instance, is a nominative pronoun. If this analysis was correct, we would therefore expect the possessee to be marked oblique, contrary to fact. In English possessive DPs, such as in (58), the possessee, *book*, is not marked oblique: it is not preceded by any oblique preposition such as dative *to*, or instrumental/comitative *with*, nor does it bear any morpheme which could be analysed as a case marker.

(58) *your book*

The argument can also be formulated the other way. The possessee is unmarked. The prediction is thus that the possessor, *you-* in (58), has to be marked oblique, again contrary to Bernstein & Tortora's hypothesis.

Given that *book* in example (58) is clearly unmarked, let us assume that the possessor *you* in *your* spells out an oblique KP. The question arises whether the presence of a copula in this possessive DP is nevertheless likely. Observe that in examples (56) and (57), the argument which triggers agreement on the copula is always the unmarked one, never the oblique one. Hence, if there was a copula in English possessive DPs, it would agree with the unmarked possessee, not with possessor, contrary to what Bernstein & Tortora propose.

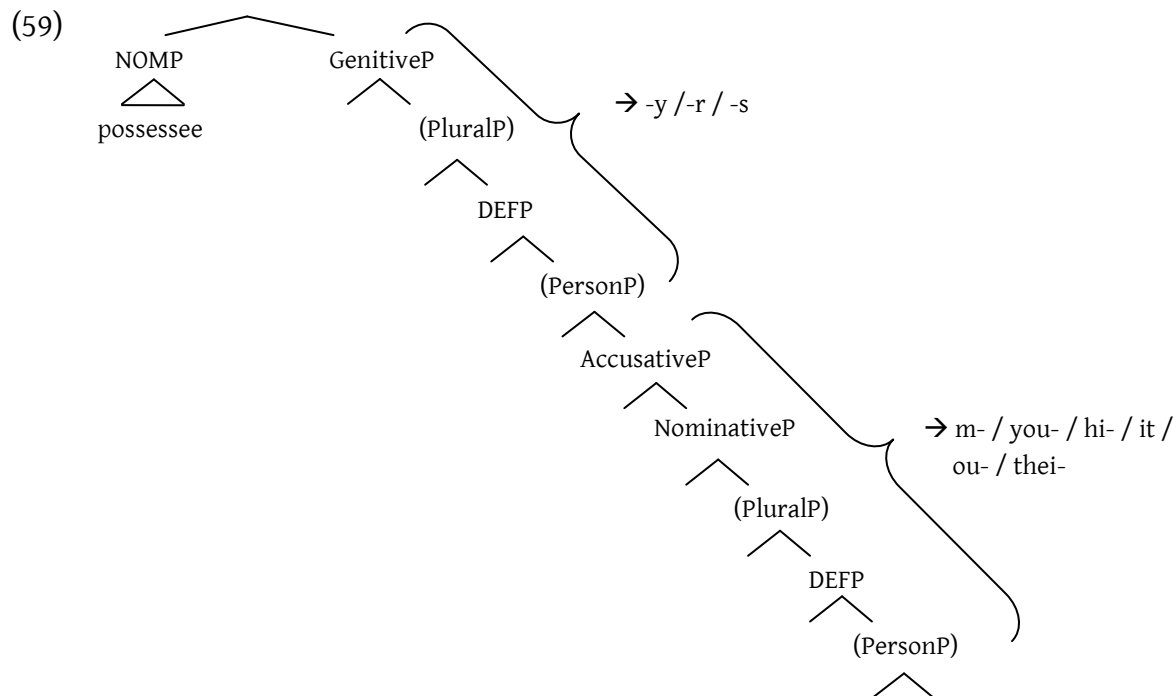
However, there is a way to reconcile Bernstein & Tortora's insight that *-s* and *-r* (and potentially *-y*) spell out the phi-features of the possessor with the arguments presented here against their analysis. I propose that the morphemes *-s*, *-r* and *-y* are not the spell-out of an agreeing copula but of reduplicated phi-feature layers of the pronominal possessor. I assume that oblique marking of one of the arguments in a clausal possession construction is also required in possessive DPs.⁴² Building on the proposal presented in section 5.3.1, I take the pronominal possessor in English possessive DPs to be

⁴² In many languages, oblique marked possessors appear in nominal possession as well. This is illustrated for Arabic in (i) (cf. also the Czech and French examples in section 5.3.3).

(i) xādim-u l-malik-i
 servant-NOM-PL DEF-king-GEN
 'the servants of the king', 'the king's servants'

Lyons (1999: 93, his (76))

base-generated as an oblique argument. More precisely, I argue that the base-generated structure of Hungarian possessive DPs proposed in section 5.3.4 is also that of English possessive DPs. As illustrated in (59), I assume that *-s*, *-r* and *-y* spell out the reduplicated phi-feature and definiteness layers as well as the genitive layer of the KP*possessor.^{43, 44}



Before turning to a comparison between the makeup of English and Hungarian possessive DPs with a pronominal possessor, I want to point out that Hungarian possessor suffixes also show that there is no copula in possessive DPs. If the possessor suffixes were the spell-out of a copula agreeing with a nominative possessor, we would expect them to have the same form as the conjugated copula. This is not the case. As shown in Table 29, most of the endings of agreeing *van* ‘be’ in the left column do not correlate with the forms of the possessor suffixes in the right column.⁴⁵

⁴³ The morpheme *-y* [ai] is syncretic with the nominative pronoun *I*. I therefore assume that *-y* only spells out the structure built by the reduplicated phi-feature layers [DEFP[PersonP]], which are a subset of the structure spelled out by the 1st person singular nominative pronoun *I*, [NOM[DEFP[PersonP]]]. The consequence is that the genitive marker is null. As for *her*, I assume that it spells out the whole genitive KP.

⁴⁴ The idea that *m-*, *you-*, *hi-*, *it-*, *ou-*, *thei-* contain an accusative case layer will be discussed in section 5.4.7.

⁴⁵ The 1st and 2nd person plural endings of the copula *-Vnk* and *tVnk* are isomorphic with the 1st and 2nd person plural possessor suffixes. However, as argued in section 4.4 of Chapter 4, the forms of the personal markers *-m*, *-d*, *-n* and *-t* are associated in the lexicon with the structure in (i). Hence, they can also spell out the person layer of the subject without the definiteness layer of the direct object. The endings *-unk* / *-tok* of the indefinite conjugation

Table 29: Comparison of the inflectional endings of *van* with the possessor suffixes on possesseees

Number	Person	Present tense conjugation of the copula <i>van</i> ‘be’		possessor suffixes on possesseees
Singular	1	vagy- ok	≠	-Vm
	2	vagy- ø	≠	-Vd
	3	van- ø	≠	-(j)a / (j)e
Plural	1	vagy- unk	=?	-unk / ünk
	2	vagy- tok	=?	-tVk
	3	van- nak	≠≈	-jök

To sum up, I propose that, in English and Hungarian possessive DPs, the argument bearing the possessor theta-role is base-generated with a genitive KP on top.⁴⁶ There is, as far as I can see, no need to postulate the presence of an agreeing copula. As discussed in sections 5.3.4 and 5.4.4.1, the second realization of the possessor’s phi-features is the spell-out of a reduplication of these layers in between the accusative and the genitive case layers of the possessor KP.

Pursuing this line of thought, the only difference between possessive DPs in Hungarian and English is that in Hungarian, the base-generated genitive KP*possessor is split in the

and the possessor markers are thus structurally different. The former only spell out PersonP, the latter spell out the whole constituent.

(i) [DEFP [PersonP]]

I represent this spurious identity by adding a question mark in the central column.

⁴⁶ As for Hungarian so-called ‘dative’ marked possessors (i), I assume that they double the possessor of a full-fledged possessive DP whose possessor is base-generated as a genitive KP*possessor and subsequently split in the course of the derivation of the possessive DP (see Den Dikken 1999: 162 for a similar idea). This is illustrated in (ii).

(i) Kornél-nak a kalap-ja

Kornél-DAT the hat-3.SG

‘Kornél’s hat’

(ii) Kornél-nak [a ø kalap-ja]

possessor double possessive DP with pro-dropped pre-possessee pronominal possessor

From the proposal that possessors are base-generated under a genitive KP, the question arises why Hungarian possessors may be marked by the dative morpheme *-nVk*, as illustrated in (i). I tentatively suggest the following. Assume that *-nVk* is associated in the lexicon with the constituent [Dative[GenitiveP[Accusative[NominativeP]]]]. By the Superset Principle, *-nVk* can also spell out the constituent [GenitiveP[Accusative[NominativeP]]]. It might thus be that *-nVk* on doubling possessors, such as *Kornél-nak* in (i), is the spell-out of a genitiveKP, in conformity with Caha (2009)’s proposal. Non-doubling possessor are base-generated under a genitiveKP but the latter is split during the derivation of the possessive DP, it thus cannot be spelled out by *-nVk*.

I leave a full-fledged account of Hungarian dative marked possessors for further research.

course of the derivation of the possessive DP while its English analogue remains a syntactic unit. The result is that the two sets of phi-features of the possessor flank the possessee in Hungarian while they are contiguous in English. As an illustration, compare the morphological makeup of *your pen* and *my pen* in English (60) and their Hungarian counterparts *a ti tollatok* and *én tollam* in (61).

- (60) a. you-r pen ⁴⁷
 2.DEF.PL.ACC-2.DEF.PL.GEN possessee
 b. m-y pen
 1.DEF.SG.ACC-1.DEF.SG.GEN possessee

- (61) a. a t-i toll-at-ok ⁴⁸
 the **2.DEF-PL.ACC** pen-**2.DEF-PL.GEN**
 b. az én toll-am
 the **1.DEF.SG.ACC** pen-**1.DEF.SG.GEN**

This parallelism between Hungarian and English possessive DPs is also clear when we compare the possessive pronouns of these languages. Hungarian possessive pronouns were presented in Chapter 4. I repeat their paradigm in the left column of Table 30. The right column displays their English equivalents.

Table 30: Hungarian and English possessive pronouns

Number	Person	possessive pronouns	
		Hungarian	English
Singular	1	az enyém	mine
	2	a tied / a tiéd	yours
	3	az övé	his/hers/its
Plural	1	a mienk / a miénk	ours
	2	a tietek / a tiétek	yours
	3	az övék	theirs

⁴⁷ Note that the morpheme spelling out the lower part of the genitive KP* precedes the morpheme spelling out the higher part of the structure. This means that the lower layers, [ACCP[NOMP[phi-featuresP₁]]], raise to a position above the genitive layer.

⁴⁸ I assume that what is spelled out by Hungarian *a* ‘the’ in possessive DPs is spelled out by a null morpheme in English.

As discussed in section 4.3.3 of Chapter 4, Hungarian possessive pronouns contain the anaphoric possessee *-e/é-*. As illustrated by the bracketing in (62), when the possessor is a full DP, the anaphoric possessee is suffixed onto this DP (Dékány 2011: 208). But when the possessor is pronominal, as in Table 30, the anaphoric possessee is flanked by the two parts of the possessor (63).

- (62) [az okos diák-ok]-é
 [the clever student-PL]-possessee
 ‘the clever students’ (one)’

Dékány (2011: 208, her (91, 92a))

- (63) Szeretjük a t-i -é -t -ek -et.
 We.like the **2.DEF-PL.ACC** -possessee -**2.DEF -PL.GEN** -ACC
 ‘We like yours.’

Setting aside the first person singular form *mine* for a short moment, English possessive pronouns are composed of two elements: the possessive determiner, which spells out two sets of phi-features, and a suffix *-s*. Given that the presence of this suffix turns the possessive determiner into a possessive pronoun, I assume that it spells out the possessee. In other words, English *-s* is the equivalent of the Hungarian anaphoric possessee *-e/é-*.⁴⁹ Consider the English translation of (63) in (64). We see again that the two sets of phi-features are contiguous and precede the possessee in English while they flank the possessee in Hungarian.

- (64) We like you -r -s.
2.DEF.PL.ACC -**2.DEF.PL.GEN** -possessee

Bernstein & Tortora (2005: 1233, fn 26) observe that *-n-* in *mine* seems “to be a reduced form of the pronominal *one*”. If this is correct, *mine* is a condensed form of *my one*. In other words, *-ne* is the spell out of the anaphoric possessee, like the suffix *-s* of the other possessive pronouns. The parallel between Hungarian and English possessive pronouns thus holds in the 1st person singular as well. Examples (65) and (66) illustrate this.

⁴⁹ The spelling of the possessive pronoun *his* is identical to that of the possessive determiner *his*. However, these forms differ phonologically, the former being a strong form [hɪz] of the latter [ɪz] (Jones 2003: 254). I suggest that the strong form results from the addition of the pronominal possessee to the structure of the weak form.

- (65) They like me -i -ne.
 1.DEF.SG.ACC -**1.DEF.SG.GEN** -possessee
- (66) Szeretik az enyémét -é -m (-et)
They.like the **1.DEF.SG.ACC** -possessee-**1.DEF.SG.GEN** (-ACC)
'They like mine.'

In the next section, I present data from Hungarian dialects in which the morpheme order of a possessive DP is identical to that found in English (60) and ((64), (65)). That is, in these dialects, possessive determiners and possessive pronouns display two contiguous sets of phi-features and precede the possessee. The latter does not bear any possessor suffix.

5.4.4.3 Evidence from Hungarian dialects

Imre (1972: 320) reports that in a dialect of Hungarian spoken in Váhovce (Slovakia), full noun possessors are not suffixed by a possessor marker. Instead, they are preceded by a pronominal possessor which displays two linearly adjacent sets of phi-features. He provides three examples. They are reproduced in (67a), (68a) and (69a). The glosses are mine and reflect my analysis. In the b-examples, I provide the Standard Hungarian form for comparison. Consider for instance the examples in (67). In (67a), the possessee *tehenek* ‘cows’ is not suffixed by a morpheme referring to the possessor. The pronominal possessor spells out the phi-features of the possessor twice. In the Standard Hungarian counterpart, the pronominal possessor is split: one part precedes the possessee and the second part is suffixed on the possessee.

- (67) a. eny-im tehen-ek
 1.DEF.SG.ACC-1.DEF.SG.GEN cow-PL
 b. az én tehen-ei-m
 the **1.DEF.SG.ACC** cow-PL-**1.DEF.SG.GEN**
 Both: ‘my cows’
- (68) a. ti-ed disznó
 2.DEF.SG.ACC-2.DEF.SG.GEN pig
 b. a te disznó-d
 the **2.DEF.SG.ACC** pig-**2.DEF.SG.GEN**
 Both: ‘your pig’
- (69) a. t-i-et-ök ökr-ök
 2-PL.ACC-2.DEF-PL.GEN ox-PL

b. a t-i ökr-ei-t-ek⁵⁰
 the 2.DEF-PL.ACC ox-PL-2.DEF-PL.GEN
 Both: ‘you_{pl}r oxen’

The a-examples are parallel to English (60): the two sets of phi-features of the possessor are not split during the derivation. Thus, the reduplicated phi-features layers and the genitive case layer are not stranded on the possessee. As a result, the latter appears without possessor suffix.⁵¹

Similar examples but with an anaphoric possessee are provided by Bartos (1999) and reported in Dékány (2011: 179). I reproduce the paradigm in (70) and interpret the forms as follows. The anaphoric possessee -é is not flanked by the two sets of the possessor’s phi-features. Instead, the unsplit genitive pronominal possessor precedes the anaphoric possessee. That is, the order is identical to that displayed in English possessive pronouns in (64), (65).

(70) Possessive pronouns in Hungarian dialects⁵²

- | | |
|------------|------------|
| a. enyim-é | b. tied-é |
| ‘mine’ | ‘yours’ |
| c. öv-é | d. mienk-é |
| ‘his’ | ‘ours’ |

⁵⁰ The morpheme *-ei-* spells out the plural of the possessee ‘oxen’, not that of the possessor.

⁵¹ In the light of this, observe that accusative pronouns in Standard Hungarian could be analysed in a similar way. Recall from section 4.1.1 in Chapter 4 that the accusative marker *-Vt* in *engem(et)*, *téged(et)*, *őjet*, *minket*, *titeket* and *őjeket* follows the second phi-features set. I have assumed in section 5.4.1 that this marker was the spell-out of an additional accusative KP merged on top of the possessive structure of these pronouns. However, this accusative marker could also be analysed as the KP*possessee (similarly to dative *nek* in *énnek-em* ‘for/to me’, for instance). The fact that it appears to the left of the two phi-features markers would indicate that the whole genitive KP_{possessor} raises over the KP*possessee. That is, the structure of accusative pronouns in Standard Hungarian, would be identical to that of the possession construction in Hungarian dialects and in English. I do not pursue this hypothesis here. The subextraction mechanism proposed in Chapter 5 to capture the displacement is the DEF-layer out of 3rd person direct object pronouns will not hinge on the choice between these two options. Note however that this hypothesis could explain why the first set of phi-markers is always present in accusative pronouns while it only appears in case of emphasis in the other non-nominative pronouns such as *(én)nek-em* ‘for/to me’ and *(mi)vel-ünk* ‘with us’: it is only in the latter that the lower part of the genitive KP*possessor raises to an FP (focus?) position over the KP*possessee. In accusative pronouns, the lower part of the genitive KP*possessor would not raise to FP but would stay within the KP. In turn, the consonant *-g-* in *engem* and *téged* (cf. Chapter 4, section 4.1.1) could be assumed to spell out the genitive layer of the genitive KP* possessor. Similarly, I assume that *-i-* and *-e-* in dialectal *enyim* and *mienk*, for instance, spell out the genitive layer of the KP* possessor.

⁵² Bartos does not give the name of the dialect in question (Éva Dékány, p.c). Whether it is the same dialect as that mentioned by Károly is unclear.

- e. *tietek-é* f. *övék-é*
 'yours' 'theirs'

Dékány (2011: 179, her (40a-f))

Let me summarize the results of this section. In English and Hungarian dialects, the possessee does not bear any possessor suffix. Instead, the two sets of the possessor's phi-features are contiguous. This was taken as evidence that the structure of the base-generated pronominal possessor raises as a whole over the possessee in these languages instead of being split like in Standard Hungarian. If the two sets of phi-features are the spell-out, at different locations, of the same pieces of structure, we expect not to find standard or dialectal forms in which a possessee is preceded by two contiguous sets of phi-features and suffixed by another such set. This seems to be correct: forms such as (71) and (72) (with simplified glosses) are unknown and totally ungrammatical to my informants.

- (71) a. * *ti-ed* *disznó-d* b. * *mi-enk* *disznó- nk*
 2.SG -2.SG pig-2.SG 1.PL-1.PL pig-1.PL
 (72) **you-r* *pig-r*
 2.PL-2.PL pig-2.PL

In the previous sections, I have presented evidence in support of the base-generated structure of the genitive KP*possessor proposed in (41) and for the main derivational steps leading to the formation of non-nominative personal pronouns presented in (44). I now elaborate on this derivation, taking the accusative pronouns *minket* 'us' and *őket* 'them' as examples.

5.4.5 Step-by-step derivation of non-nominative pronouns

5.4.5.1 Preliminary remarks

First, recall some of the facts discussed in Chapter 4: (i) the DEF-marker found on the finite verb when the direct object is a 3rd person pronoun is base-generated within the pronominal direct object, (ii) the DEF-marker is not found on the verb when the direct object is a 1st or 2nd person personal pronoun, (iii) whether their referent is singular or plural, 3rd person accusative personal pronouns trigger the appearance of the same object marker on the verb. The aim of this section is to develop a structure of accusative personal pronouns which will enable me to capture these facts in section 5.4.6.

In section 5.4.5.2, I develop a nanosyntactic derivation of the 1st person plural pronoun *minket* 'us'. In section 5.4.5.3, I apply this derivation to the 3rd person pronoun *őket* 'them'.

The description of each step of the derivation will also show how the proposal can capture the phenomenon of anti-agreement with pronominal possessors presented in sections 5.2.1 and 5.2.2.

5.4.5.2 Nanosyntactic derivation of *minket* ‘us’

As shown in section 5.2.2, the makeup of *minket* is identical to that of accusative possessive DPs with a nominative pronominal possessor. This is illustrated again in Table 31.

Table 31: The possessive makeup of the 1st person plural accusative pronoun *minket*

		PART 1: nominative personal pronoun		PART 2	PART 3: possessor marker		PART 4	
		Person marker 1	Number marker 1	possessee	DEF-marker	Person marker 2	Number marker 2	Acc. marker
1	(<i>mi</i>) <i>bábunket</i> ‘our puppet _{ACC} ’	(m	i)	bábu	n		k	et
2	<i>minket</i> ‘us’	m	i	∅	n		k	et

Descriptively, *minket* spells out the 1st person feature and the plural feature twice and accusative once. However, it is crucial for what follows to keep in mind that morphemes may spell out more than one structural layer (cf. Chapter 2). For instance, as discussed in section 4.4 of Chapter 4, the allomorphs *m-* and *-n-* spell out the structure [DEFP [1st personP]]. By the Superset Principle, they can therefore also spell out the single layer [1st person].

Let us turn to the steps of the derivation. For clarity, each step is numbered.

1. The derivation of a pronoun starts by inserting the person layer (Starke 2013).⁵³ In *minket*, the possessor is 1st person. The 1st person layer of the pronominal possessor is thus merged. This layer is then sent to spell-out. There, the lexicon is consulted. The lexical item *m*, which is associated with the structure [DEFP[1st Person]] is the best match for the structure which has been built in the syntax, namely [1st PersonP]. This structure is thus spelled out by the lexical item *m*.

(73)

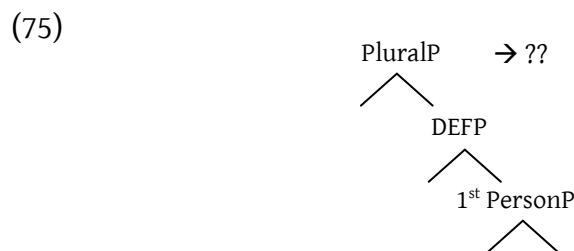
$$\begin{array}{c}
 1^{\text{st}} \text{ PersonP} \rightarrow m \\
 \wedge
 \end{array}$$

⁵³ It is irrelevant for our purposes whether 1st and 2nd person-features should be decomposed into features such as [speaker], [hearer], [author] or [participant] (Benveniste (1966: 232, 252-253, Harley & Ritter (2002), Lyons (1999: 318), Nevins (2011), Starke (2013), Van Koppen (2012)).

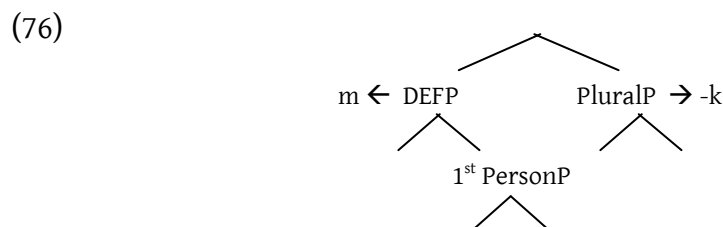
2. A layer of definiteness, DEFP, is merged on top of the possessor's person layer. The resulting structure is sent to spell-out and the lexicon is consulted. As this structure perfectly matches that associated with the lexical item *m*, it is spelled out by this lexical item. That is, *m* now spells out not only the 1st person layer but also the definiteness layer. I will henceforth call this structure $|m|$.



3. The pronoun *minket* has a plural referent, this means that the possessor is plural. Thus, a plural layer is merged on top of the structure $|m|$. The resulting tree is sent to spell-out and the lexicon is consulted. There, no lexical item is associated with a structure that matches the structure built in syntax. That is, no single lexical item can spell out the constituent formed of the plural, definiteness and person layers. This is shown in (75).



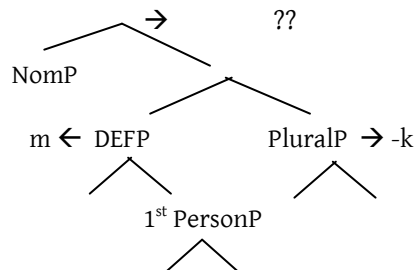
The structure thus goes back to the syntax and is modified: structure $|m|$ undergoes Spell-Out Driven Movement (cf. section 2.1.4 of Chapter 2). That is, it raises over the plural layer. Now, the plural layer does not form a constituent with the structure $|m|$ anymore. The resulting structure is sent to spell-out. There, the lexicon is consulted and the lexical item *k*, which is associated with the structure $[PluralP]$, is found. The plural layer is thus spelled out by *-k*. I call this structure $|k|$. The structure $|m|$ is in the specifier of structure $|k|$ and the entire structure is now linearized as *m-k*.



4. As argued in section 5.3, the pronominal possessor is a genitive pronoun. Case layers must thus be merged on top of the phi-features layers of this pronoun. Following Caha (2009), I take the nominative layer to be the closest to the nominal root (cf. section 2.2.1 of Chapter 2). Thus, a nominative case layer, NomP, is merged on top of $|k|$.

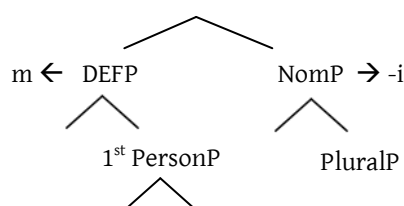
The structure obtained cannot be spelled out (77).

(77)



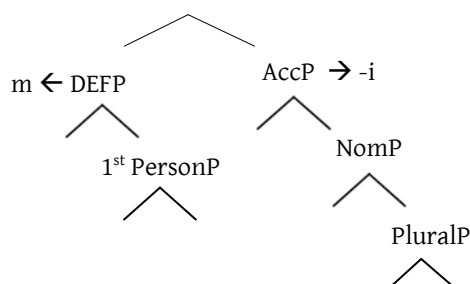
Hence, it goes back to the syntactic module and the structure $|m|$ raises over NomP. The layers NomP and PluralP form a constituent. I assume that a lexical item, *i*, can spell out this constituent. That is, the lexical item *i* occurs in the plural instead of the usual plural marker *k* because it can spell out two layers at once, NomP and PluralP. In other words, the previous spell-out *-k* of the plural layer is overridden by the spell-out *-i* (cf. section 2.1.4 of Chapter 2). The structure obtained corresponds to the nominative pronoun *mi*.

(78)

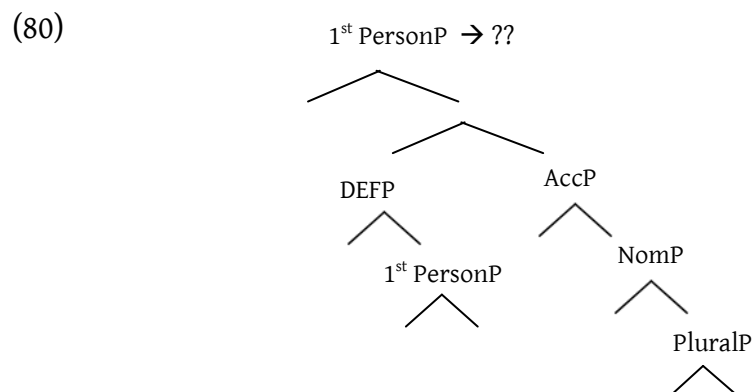


5. Now that the nominative case layer has been spelled out, we merge the second case layer, namely AccP, on top of NomP. The structure obtained finds no match in the lexicon and thus returns to the syntactic component. Structure $|m|$ raises over AccP. The accusative layer now forms a constituent with the layers NomP and PluralP. I assume that this constituent can also be spelled out by *i*. That is, *i* is associated with the structure $[AccP[NomP[PluralP]]]$ in the lexicon. This lexical item is hence able to spell out the nominative and plural layers of the nominative pronoun *mi* (and *ti*) as well as the accusative, nominative and plural layers which enter in the composition of possessor pronouns. The structure obtained yields *mi* again, I call it $|m-i|$.

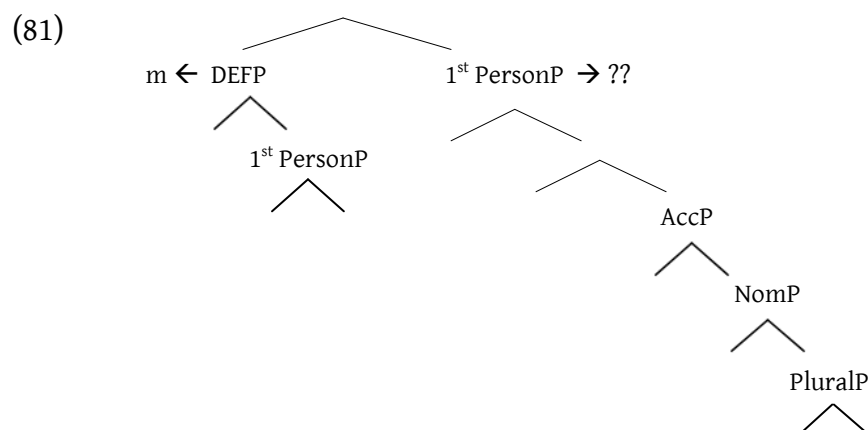
(79)



6. The set of phi-features of the possessor is now reduplicated. First, a reduplication of the possessor's person layer is merged on top of AccP. In the lexicon, no lexical item is stored whose structure matches the structure built in syntax. This structure can thus not be spelled out (80).



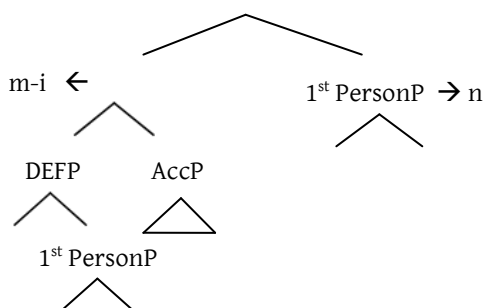
As a consequence, the structure represented in (80) must be modified. The first attempt to modify the structure consists in moving the initial constituent [DEFP[1PersonP]] over the reduplicated Person layer. Then, the lexicon is consulted again. There is however no lexical item which could spell out the reduplicated person layer together with the case and the plural layers (81).



The structure is thus sent back to the syntactic component and modified a second time. The movement of [DEFP[1PersonP]] over the reduplicated 1st person layer is undone. We are thus back to the configuration given in (79). From there, [DEFP[1PersonP]] pide-pipes

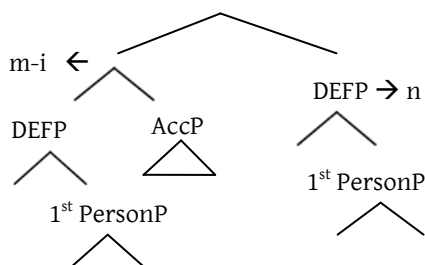
the case and plural layers. That is, the whole structure $|m-i|$ raises over the reduplicated person layer. The latter can now be spelled out by $-n$.⁵⁴

(82)



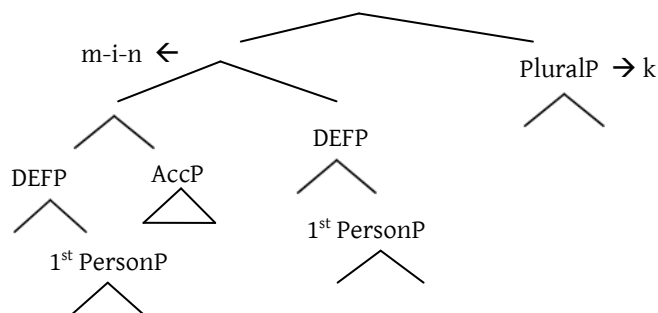
7. Now that the structure containing the reduplicated person layer has been spelled out successfully, the definiteness layer is reduplicated and merged on top of the reduplicated person layer. The structure $|m-i|$ raises over the reduplicated DEFP . The latter forms a constituent with the reduplicated 1^{st} PersonP . This constituent is realized by $-n$, I call it $|n|$. The structure now generates the string $m-i-n$. I call this structure $|m-i-n|$.

(83)



8. Finally, a reduplication of the possessor's plural layer is merged over DEFP . The structure $|m-i-n|$ raises over the reduplicated plural layer, which I call $|k_2|$. The latter is spelled out by $-k$. The structure yields the string $m-i-n-k$. I call this structure $|m-i-n-k|$.

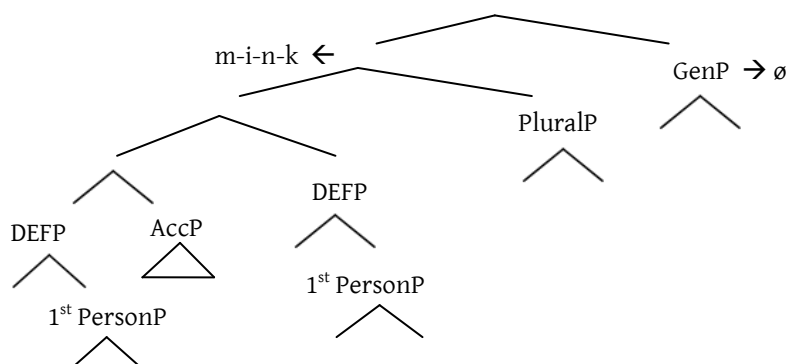
(84)



⁵⁴ In what follows, I gloss over the derivational steps which produce structures that cannot be spelled out. I only describe the steps of spell-out driven movements that lead to successful lexicalizations.

9. The genitive layer is merged on top of the reduplicated PluralP $|k_2|$. The structure $|m-i-n-k|$ raises over the genitive layer. As discussed in section 5.3.3, this layer is spelled out by a null morpheme.

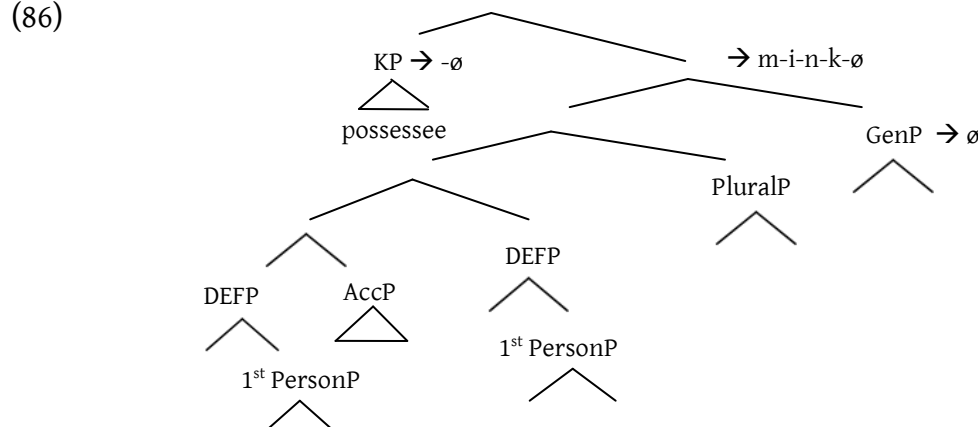
(85)



The resulting structure, linearized by the string of morphemes $m-i-n-k-\emptyset$, is that of the 1st person plural genitive pronominal possessor.⁵⁵

10. This structure is now merged as the sister of the possessee. As we have seen in section 4.1.1 of Chapter 4, in *minket*, the KP* possessee is spelled out by $-\emptyset$.⁵⁶

(86)

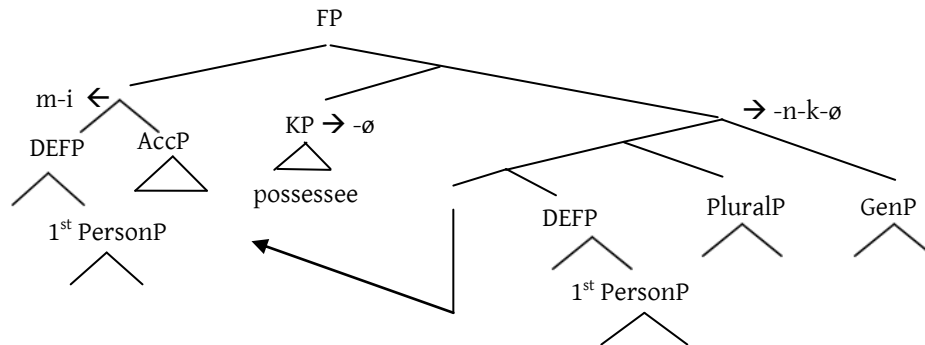


⁵⁵ Recall from section 5.4.4.3 that in some Hungarian dialects, the genitive pronominal possessor is not split and appears as a whole in front of the possessee. In these dialects, the 1st plural person genitive KP is *mienk*, not *mink*. In footnote 51 above, I tentatively suggested that, in these dialects, *-e-* was the spell-out of the genitive case layer. As *-e-* appears between *mi-* and *-nk*, this suggestion would imply that in the derivation of *mienk*, it is only the structure $|mi|$ which raises over the genitive layer. The structure leading to the string *-n-k* would be stranded. In order for the string *m-i-e-n-k* to surface, we would need to adopt Caha (2009: 66-67)'s relaxed matching approach according to which spelled out constituents may be ignored for further matching. I leave the suggestion at this tentative stage here.

⁵⁶ In *(mi)nek-ünk* 'to/for us', for instance, the dative morpheme *nek* spells out the dative KP embedding the structural possessee. I thus propose that the KP embedding the structural possessee in accusative personal pronouns such as *minket* is an accusative KP. This accusative KP is realized as the accusative morpheme *t* in *őt* 'him', the variant of *ő*. In *őt* and *ők*, it is lexicalized by the null allomorph of the accusative case marker, whose existence I will postulate in section 5.4.7.

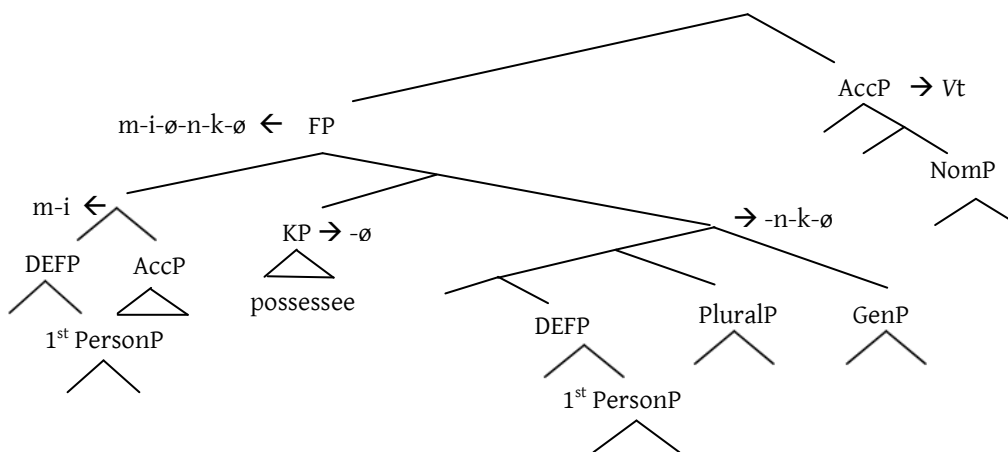
11. The layer FP is merged on top of the possessee and attracts the structure $|m-i|$ of the genitive pronominal possessor. The structure $|n-k-\emptyset|$ composed of the structures $|n|$ and $|k_2|$ and of the genitive layer is stranded. The structure obtained yields the string $m-i-\emptyset-n-k-\emptyset$. I call this structure $|m-i-\emptyset-n-k-\emptyset|$.

(87)



12. On top of $|m-i-\emptyset-n-k-\emptyset|$, two case layers are merged. First a nominative one and then an accusative one. The structure $|m-i-\emptyset-n-k-\emptyset|$ first raises over NomP and then over AccP. The two case layers form an accusative KP which is spelled out by $-Vt$. The structure obtained is that of the 1st person plural accusative personal pronoun. It is spelled out by the string $m-i-\emptyset-n-k-\emptyset-et$.

(88) Derived structure of *minket*



Now that the derivation of *minket* is in place, two points should be stressed. First, the derivation presented above used the 1st person plural accusative pronoun as an example. However, as I have discussed at length, all the other non-nominative pronouns have a parallel morphological makeup. This derivation thus applies to these items as well (though

step 12 is specific to accusative pronouns, as mentioned in section 5.4.1). Second, the derivation captures the intriguing fact that plurality seems to be realized by two distinct morphemes in plural personal pronouns, i.e. by *-i-* and *-k*. In the proposed derivation, *-i* and *-k* are not allomorphs: the former spells out the constituent [ACC[NOM[PL]]] while the latter only spells out the plural layer. The precise decomposition of *minket* is thus that in (89).

(89) Decomposition of *minket* ‘us’

m -i -ø -n -k -ø -et
 1.DEF -**PL.ACC** -KP*possessee -1.DEF -PL -GEN -ACC
 ‘us’

Let us now turn to the derivation of the 3rd person plural accusative pronoun *õket* ‘them’.

5.4.5.3 Nanosyntactic derivation of *õket* ‘them’

I argued in section 5.2.2 that the 3rd person direct object pronouns *õt* ‘him’ and *õket* ‘them’ are also built on a possessive template. On lines 2 and 4 of Table 32, I reproduce the decomposition of these pronouns. For comparison, I also repeat the decomposition of possessive DPs with a singular possessor (line 1) and with a plural possessor (line 3). In the 3rd person direct object pronouns, the structural position of the possessee is occupied by a null morpheme. As above, the DEF-markers of these pronouns are set in grey font. This is to illustrate the proposal that they are base-generated within the pronouns but that they are not present in the surface forms.

Table 32 : The possessive makeup of the 3rd person accusative pronouns *õt* and *õket*

		PART 1: nominative personal pronoun		PART 2	PART 3: possessor marker			PART 4
		Person marker 1	Number marker 1	possessee	DEF-marker	Person marker 2	Number marker 2	Accusative marker
1	(<i>õ</i>) <i>cipõjët</i> ‘his shoe _{ACC} ’	(<i>õ</i>)		<i>cipõ</i>	je			t
2	<i>õt</i> ‘him’	<i>õ</i>		ø	<i>je</i>			t
3	(<i>õ</i>) <i>cipõjüket</i> ‘their shoe _{ACC} ’		(<i>õ</i>)	<i>cipõ</i>		jük ⁵⁷		et
4	<i>õket</i> ‘them’		<i>õ</i>	ø		jük		et

⁵⁷ Recall from section 4.3.1.4 of Chapter 4 that the allomorphs *-(j)uk* / *-(j)ük* are the spell-outs of a portmanteau composed of the (reduplicated) definiteness and the plural layers.

Just like *minket*, *ǫket* has a possessive structure. The only difference between *minket* and *ǫket* is that the former contains a person/DEF feature while the latter does not. Everything else being equal, the components of *ǫket* and its derivation should be identical to those of *minket*. The detailed linear decomposition of *ǫket* (90) can thus be built on the model of that obtained for *minket* in (89). From left to right, the features spelled out by *ǫket* are the following ones. The morpheme *ǫ* spells out the definiteness and plural features as well as the accusative and nominative layers of the base-generated genitive KP* possessor. The null morpheme corresponds to the KP* possessee. The morpheme *je* is the allomorph that would spell out the reduplicated DEF-layer prior to its subextraction during the clausal derivation. The marker *k* lexicalizes the reduplicated plural layer. The genitive layer is spelled out by *ø* and *-et* spells out the Accusative KP which embeds the possessive construction.

(90) Decomposition of *ǫket* ‘them’

ǫ	-ø	-je	-k	-ø	-et
DEF.ACC.PL	-KPpossessee	-DEF	-PL	-GEN	-ACC
‘them _{Acc} ’					

In what follows, I provide the detailed derivation of *ǫket*. It is essentially identical to that of *minket*. However, extra care must be taken for the derivation of the 3rd person pre-possessee pronominal possessor *ǫ*. In *minket*, the accusative pre-possessee pronominal possessor *mi* is formally identical to the nominative pronoun *mi*. In *ǫket*, as in all possession constructions with a 3rd person plural possessor, the pre-possessee pronominal possessor is *ǫ* and thus formally different from the nominative pronoun *ǫk*. To show how this difference can be captured, I proceed in two steps. To build an accusative pronoun, we first need to build its nominative counterpart (cf. steps 4 and 5 of the derivation of *minket*). I thus first describe the derivation of the nominative pronoun *ǫk*. I then go on with the derivation of *ǫket*.

Derivation of the nominative pronoun *ǫk*

1. As there is no person layer in 3rd person personal pronouns, the first layer to be merged is DEFP. This layer is sent to spell-out, where the lexicon is consulted. A matching structure, a DEF-layer, is found. As shown in sections 4.3.1.2 and 4.3.1.3 of Chapter 4, the lexical item this matching structure is associated with is a vocalic phoneme. Recall that the choice of allomorph, *-a*, *-e*, *-i* or the occurrence of Low Vowel Lengthening, depends on the phonological properties of the stem on which this layer is suffixed. For expository

purposes, I call this vocalic element V_{DEF} . This element spells out the DEF-layer merged in the syntax.

(91)

$$\begin{array}{c} \text{DEFP} \\ \swarrow \quad \searrow \end{array} \rightarrow V_{DEF}$$

2. The pronoun *ǝk* refers to a plural entity. Thus, a plural layer is merged on top of the DEF-layer. The resulting structure is sent to spell-out. However, in the lexicon, no item is associated with the structure derived in the syntax. That is, no single lexical item can spell out the constituent [PluralP[DEFP]]. The structure thus goes back to the syntactic module and is modified: spell-out driven movement targets the DEF-layer, which raises over the plural layer. Now, the plural layer can be sent to spell-out. There, the lexicon is consulted and the lexical item *k*, which is associated with the structure [PluralP], is found. The plural layer is thus spelled out by *-k*. I call this structure $|k|$. The DEF-layer is in the specifier of structure $|k|$, so the entire structure is linearized as $V_{DEF} -k$.

(92)

$$\begin{array}{ccccc} & & \swarrow & & \searrow \\ V_{DEF} \leftarrow & \text{DEFP} & & & \text{PluralP} \rightarrow -k \\ & \swarrow \quad \searrow & & & \swarrow \quad \searrow \end{array}$$

3. Next, the nominative case layer, NomP, is merged on top of $|k|$. The resulting structure is sent to spell-out but no lexical item with a matching structure is found. The structure thus goes back to the syntax and the DEF-layer raises over NomP. The resulting structure is given in (93).

(93)

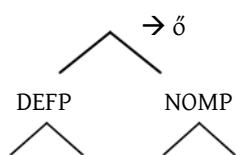
$$\begin{array}{ccccc} & & \swarrow & & \searrow \\ & \text{DEFP} & & & \text{NomP} \\ & \swarrow \quad \searrow & & & \swarrow \quad \searrow \\ & & & & \text{PluralP} \end{array}$$

The layers NomP and PluralP form a constituent. This constituent is sent to spell-out and the lexicon is consulted. As suggested in steps 4 and 5 of the derivation of *minket*, the lexicon contains a lexical item *-i* which is associated with the structure [AccP[NomP[PluralP]]]. The constituent [NomP[PluralP]] is thus a subset of the structure associated with *-i*. By the Superset Principle, the lexical item *-i* can thus lexicalize the right

branch of (93). Empirically, this is however not the case: the nominative pronoun is $\acute{o}k$, not $*\acute{o}i$. That is, the plural layer in (93) is spelled out by $-k$ and not together with the nominative by the morpheme $-i$. This apparently contradictory lexicalization is actually expected. Let us see why.

Consider first the nominative singular personal pronoun \acute{o} ‘he’. As \acute{o} refers to a definite entity, it is reasonable to assume that it contains a definiteness layer. I assume that \acute{o} spells out a definiteness and a nominative layer. As case-markers are always suffixed in Hungarian. I propose that the DEF-layer raises over the nominative layer. This yields the following structure.

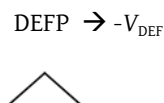
(94)



If it is this structure that \acute{o} spells out, \acute{o} must be associated with this structure in the lexicon. Now, let us see how and why the structure in (93) is spelled out by the string $\acute{o}k$ and not by the string $*\acute{o}i$. The task is slightly complicated by the fact that each layer composing this structure may be spelled out by two distinct lexical items. That is, several lexical items enter in competition for the morphological realization of each layer. As I now show, the nanosyntactic apparatus however enables us to predict which lexical items are ultimately chosen.

The lexical items which can spell out the layers of the structure in (93) are as follows. The definiteness layer alone is associated with the morpheme $-V_{DEF}$ in the lexicon (95). The plural layer alone is associated with the morpheme $-k$ (96). As argued in 5.4.5.2, the constituent formed of the accusative, nominative and plural layers is associated with the morpheme i (97). This morpheme can thus spell out a subpart of this constituent. Thus, i can also spell out the layers nominative and plural. In principle, i could also spell out the plural layer alone but the lexical item $-k$ is a better match (cf. (96)). Thus, i can only lexicalize $[Acc[Nom[Pl]]]$ and $[Nom[Pl]]$. Finally, the structure in 0, in which the DEF-layer is in the specifier the nominative layer, is associated with the morpheme \acute{o} , as discussed above (94).

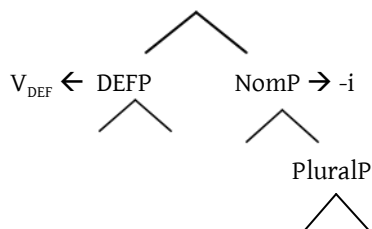
(95)



- (96) $\text{PluralP} \rightarrow -k$
- (97) $\text{AccP} \rightarrow -i$
- (98) $\rightarrow \text{ǫ}$

Given these lexical items, there are two ways to spell out the structure in (93). I present both in turn. First, as we have already seen, the nominative and the plural layers could be spelled out together by $-i$ (97) and the DEF-layer could be spelled out alone by $-V_{DEF}$ (95). This is illustrated in (99). The 3rd person plural nominative pronoun would wrongly be predicted to be $*-V_{DEF}-i$.

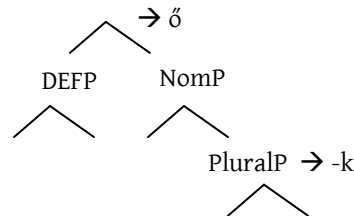
- (99)



The second option is that the definiteness layer is spelled out together with the nominative layer giving ǫ and the plural layer is spelled out alone by $-k$ (96). This yields the attested string $\text{ǫ}k$. Is there any way to predict that the latter solution is the correct one? The answer is yes and here is why. In the latter option, both lexical items ǫ and $-k$ are associated in the lexicon with a structure which perfectly matches that built in the syntax. In the former option, the DEF-layer perfectly matches with the structure associated with $-V_{DEF}$ in the lexicon (95). Spelling out the remaining constituent $[\text{NomP}[\text{PluralP}]]$ by $-i$, however, is not the ideal option because this constituent is only a subset of the structure (97) with which i is associated in the lexicon. Thus, the former option results in the insertion of more specific lexical items than the latter. This option is in conformity with the Elsewhere

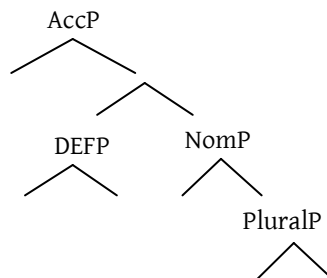
Principle and is therefore chosen. This explains why the structure of the 3rd person plural nominative pronoun in (93) is realized by the string *ǫ-k*. I illustrate the correct spell-out of the structure (93) in (100).⁵⁸

(100) Structure and spell-out of the 3rd person plural nominative pronoun *ǫk*



Now that the derivation of the nominative pronoun *ǫk* is in place, we can proceed to the derivation of its accusative counterpart, *ǫket*. For this, the structure in (100) re-enters the syntax. There, an accusative case layer is merged over the nominative layer (101).

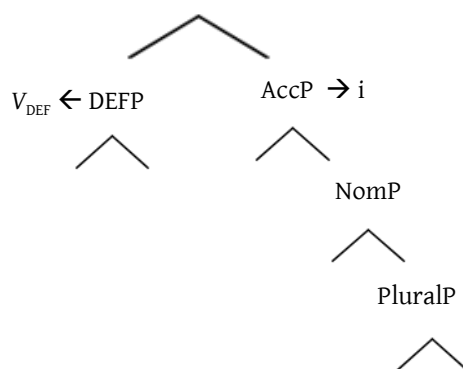
(101)



4. No lexical item can spell out this structure so the DEF-layer undergoes spell-out driven movement. The accusative layer now forms a constituent with the layers NomP and PluralP. This constituent is a perfect match for the structure associated with the lexical item *-i* in the lexicon (97). This constituent is thus spelled out by *i*. As for the DEF-layer raised over AccP, it is spelled out by V_{DEF} . The whole structure is represented in (102) and yields the string $V_{\text{DEF}}-i$.

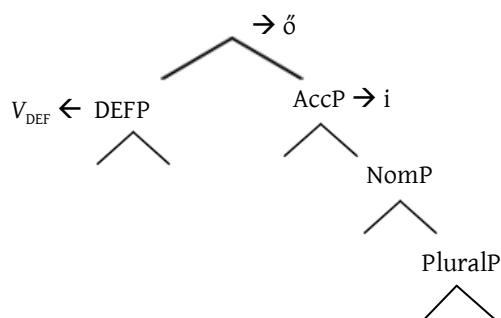
⁵⁸ I assume here Caha (2009: 66-67)'s relaxed matching approach according to which spelled out constituents may be ignored for further matching. That is, once the plural layer is spelled out, the structure $[[\text{DEFP}] [\text{NomP}]]$ matches that associated with the lexical item *ǫ* in (98). Another option would be to follow Starke (2011)' rigid matching approach and to assume that the plural layer raises over $[[\text{DEFP}] [\text{NomP}]]$. This structure itself would then have to undergo remnant movement over the plural layer.

(102)



The structure in (102) is that of the accusative pre-possessee pronominal possessor. However, the spell-out of this structure, $V_{\text{DEF}}-i$, does not correspond to the actual form of this pronoun. Instead, as we have seen in (90), the form of the pre-possessee pronominal possessor is ő . The question thus arises why the predicted string $V_{\text{DEF}}-i$ gives rise to the form ő . Observe the following. The morpheme $-V_{\text{DEF}}$ is usually suffixed: it is suffixed to nominal stems in the expression of possession, to case morphemes or postpositions to form oblique pronouns and, as argued in section 4.3.1.3 of Chapter 4, it is suffixed to the finite verb in the definite conjugation. In the structure in (102), however, $-V_{\text{DEF}}$ is not suffixed to any stem. I propose that, as a consequence, the phonological component merges this vocalic element together with the vowel i , which spells out the constituent $[\text{AccP}[\text{NomP}[\text{Plural}]]]$. This produces a long vowel, ő . As mentioned in section 4.3.1.2 of Chapter 4, the formation of a single long vowel from two adjacent vocalic items, is a frequent phonological process in Hungarian: Siptár & Törkenczy (2000: 125) note that it is a common way to resolve hiatuses. I therefore suggest that the whole structure in (102) is ultimately spelled out by the long vowel ő . This is illustrated in (103). I call this structure $|\text{ő}_{\text{ACC.PL}}|$.

(103)



Before moving on to the next step of the derivation of *ők*_{ket}, let me stress the following point. In section 5.2 of Chapter 5, I mentioned the phenomenon of anti-agreement. The data is illustrated again in (104)-(105) (the glosses are descriptive and do not reflect the featural composition argued for presently). Descriptively, the plurality of a pronominal 3rd person possessor is not indicated on the pronoun preceding the possessor. That is, the form *ő* of the plural pre-possessee pronominal possessor (105) is syncretic with that of its singular counterpart in (104). If the analysis proposed in (103) is on the right track, then this syncretism is spurious: contrary to the structure of *ő* in (104), the structure of the plural pre-possessee pronominal possessor in (105) contains a plural layer. However, the formation of a long vowel out of the spell-out V_{DEF} -i conflates the two different underlying structures.

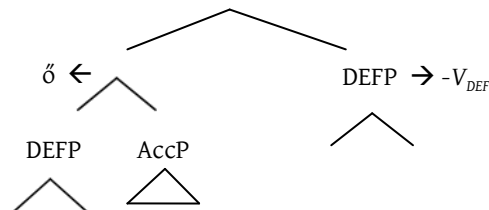
(104) az *ő* könyv-e
the 3.SG book-3.SG
‘his book’

(105) a. az *ő* könyv-ük
the 3.SG book-3.PL
‘their book’
b. *az *ők* könyv-ük
the 3.PL book-3.PL

Let us now go back to the derivation of *ők*_{ket}.

6. Now that the accusative layer is merged (103), the phi-features of the possessor are reduplicated. First, a reduplication of the possessor’s DEF-layer is merged on top of AccP. The structure $[\check{o}_{ACC.PL}]$ raises over this reduplicated DEF-layer. The latter can now be spelled out by $-V_{DEF}$.⁵⁹ I call the resulting structure $[\check{o}_{ACC.PL} - V_{DEF}]$; it is depicted in (106).

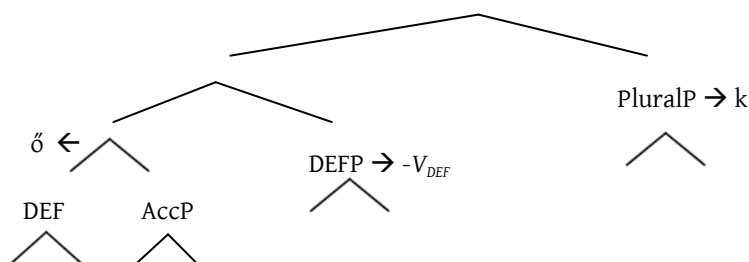
(106)



⁵⁹ Recall that, as discussed at the beginning of this section (Table 32), if this reduplicated DEF-layer stayed within the pronoun, the allomorph chosen for V_{DEF} would be *-je*.

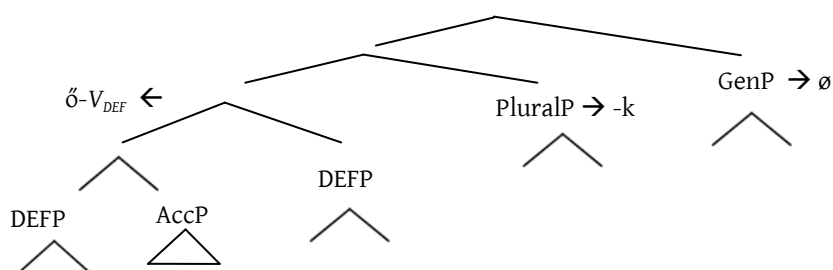
7. The plural layer is reduplicated and merged on top of the reduplicated DEF-layer. The structure $|\check{\sigma}_{ACC.PL} - V_{DEF}|$ raises over the reduplicated PluralP. The latter is spelled out by $-k$. I call this structure $|\check{\sigma}_{ACC.PL} - V_{DEF} - k|$.

(107)



9. Then, the genitive layer is merged on top of the reduplicated PluralP. The structure $|\check{\sigma}_{ACC.PL} - V_{DEF} - k|$ raises over the genitive layer. Like in step 9 of the derivation of *minket*, this genitive layer is spelled out by a null morpheme.

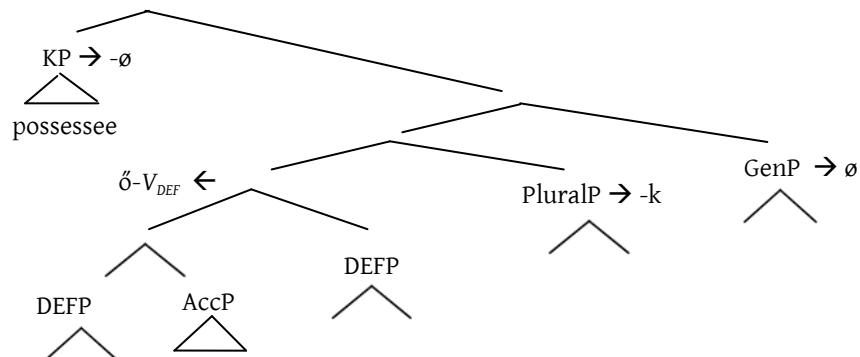
(108)



The structure obtained is realized by the string of morphemes $\check{\sigma} - V_{DEF} - k - \emptyset$. It is that of the 3rd person plural genitive KP* possessor.

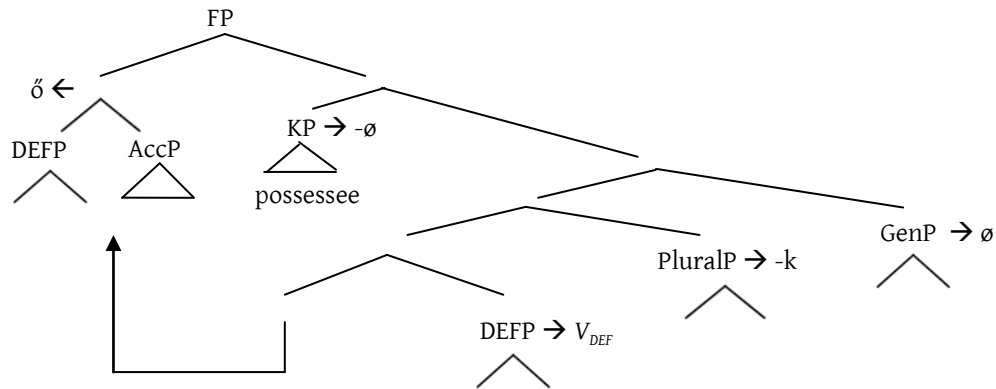
10. This genitive KP* is now merged as the sister of the possessee. As we have seen in section 4.1.1 of Chapter 4, in *σket*, the KP* possessee is spelled out by $-\emptyset$.

(109)



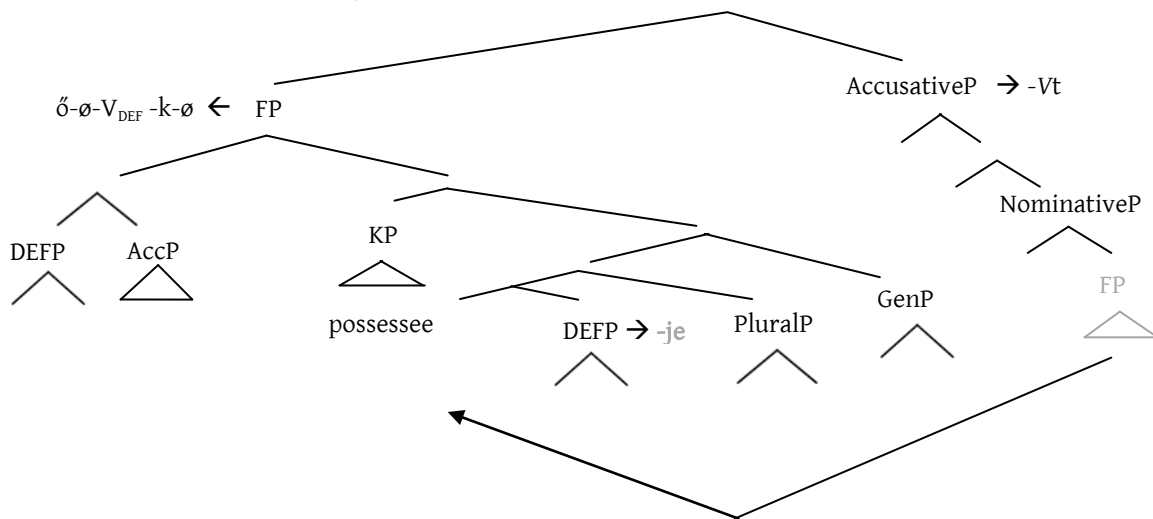
11. The layer FP is merged on top of the possessee and attracts the structure $|\check{\sigma}_{\text{ACC.PL}}|$ of the genitive KP* possessor. The genitive layer together with the reduplicated definiteness and plural layers are stranded. The structure obtained yields the string $\check{\sigma}\text{-}\emptyset\text{-}V_{\text{DEF}}\text{-}k\text{-}\emptyset$. I call it $|\check{\sigma}\text{-}\emptyset\text{-}V_{\text{DEF}}\text{-}k\text{-}\emptyset|$.

(110)



12. On top of $|\check{\sigma}\text{-}\emptyset\text{-}V_{\text{DEF}}\text{-}k\text{-}\emptyset|$, two case layers are merged. First a nominative case layer and then an accusative one. The structure $|\check{\sigma}\text{-}\emptyset\text{-}V_{\text{DEF}}\text{-}k\text{-}\emptyset|$ first raises over NomP and then over AccP. The two case layers form a constituent which is spelled out by -Vt.

(111) Derived structure of $\check{\sigma}jeket$



This is the structure of the 3rd person plural accusative pronoun $\check{\sigma}jeket$. As already mentioned, I will argue in Chapter 6 that the reduplicated DEF-layer subextracts during the derivation of a clause of which $\check{\sigma}jeket$ is the direct object. This is why the pronoun never surfaces as $^*\check{\sigma}jeket$ but as $\check{\sigma}ket$.

5.4.6 The lack of definiteness marking with 1st and 2nd person pronouns

From the analysis of the possession construction with a nominative pronominal possessor developed in this chapter, it falls out that the structure of the pre-possessee possessors contains not only a nominative case layer but also an accusative one. In the following section, I present some evidence for this claim.

Before doing so, however, I point out that we are now in a position to capture the lack of definiteness marking with 1st and 2nd person pronouns. Recall from Chapter 3 that 1st and 2nd person pronominal direct objects are incompatible with the definite conjugation. I reproduce an example below.

- (112) János ismer / *-i engem / téged / minket / titeket.
 János know.3.SG.INDEF / -DEF me_{ACC} you_{SG.ACC} us_{ACC} you_{PL.ACC}
 ‘János knows me/you/us.’

Recall also that the morphemes *-Vm*, *-Vd*, *-Vn* and *-Vt* in 1st and 2nd person pronouns spell out the following structure (section 4.4 of Chapter 4 and section 5.4.5.2 of the present chapter):

- (113)
-
- ```

graph TD
 DEFP --- DEF
 DEFP --- PersonP
 PersonP --- 1st_Person[1st Person]

```

The DEF-layer cannot extract out of this structure. This would namely disrupt the constituent, as schematized below. As a consequence, the DEF-layer cannot raise and be spelled out on the finite verb. This is why 1<sup>st</sup> and 2<sup>nd</sup> person pronouns do not co-occur with the definite conjugation. As there is no Person layer inside 3<sup>rd</sup> person pronouns, the DEF-layer can subextract and be subsequently spelled out on the finite verb.

- (114)
- 
- ```

graph TD
  DEFP --- DEF
  DEFP --- PersonP
  PersonP --- 1st_Person[1st Person]
  DEF --- X((X))
  
```

5.4.7 The accusative status of the pre-possessee pronominal possessor

In the previous sections, I have proposed that the Hungarian pre-possessee pronominal possessor is embedded under an accusative KP. This proposal may be surprising for the following reason. As illustrated in Table 33, the forms of the pre-possessee pronominal possessors are nearly identical to that of nominative personal pronouns. This often lead authors to assume that it is a nominative pronoun (Coppock & Wechsler 2012: 33, De Groot 1989: 84, Den Dikken 1999: 154-160, Rounds 2001: 140, Szabolcsi 1992: 7).⁶⁰

Table 33: Nominative pronouns and pre-possessee pronominal possessors

Number	Person	Nominative pronouns	Pre-possessee pronominal possessors
Singular	1	én 'I'	én
	2	te 'you _{SG} '	te
	3	ő 'he/she/it'	ő
Plural	1	mi 'we'	mi
	2	ti 'you _{PL} '	ti
	3	ők 'they'	ők

Here, I provide support for the accusative KP* analysis in showing that the English counterparts of the Hungarian pre-possessee pronominal possessors may be analysed as accusative KP*s as well.

I argued in section 5.4.4.2 that the base-generated structure of Hungarian possessive determiners is identical to that of English possessive determiners. I have also proposed that, like in Hungarian, English possessive determiners are bi-morphemic: one part spells out an accusative KP* and phi-feature layers, the other part spells out the genitive layer and the reduplicated phi-feature layers. Examples (60) and (61) are repeated in (115). In (116) and (117) I represent the bi-morphemic spell-out of English and Hungarian possessive determiners, respectively.

(115) a. Decomposition of *your pen*

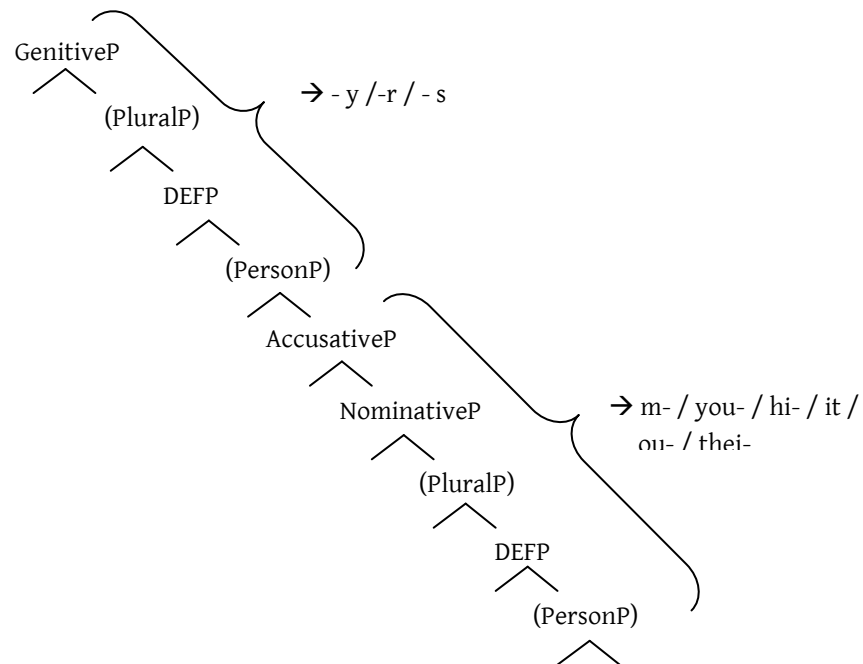
you -r pen
2.DEF.PL.ACC -2.DEF.PL.GEN possessee

b. Decomposition of *ti tollatok* 'your_{PL} pen'

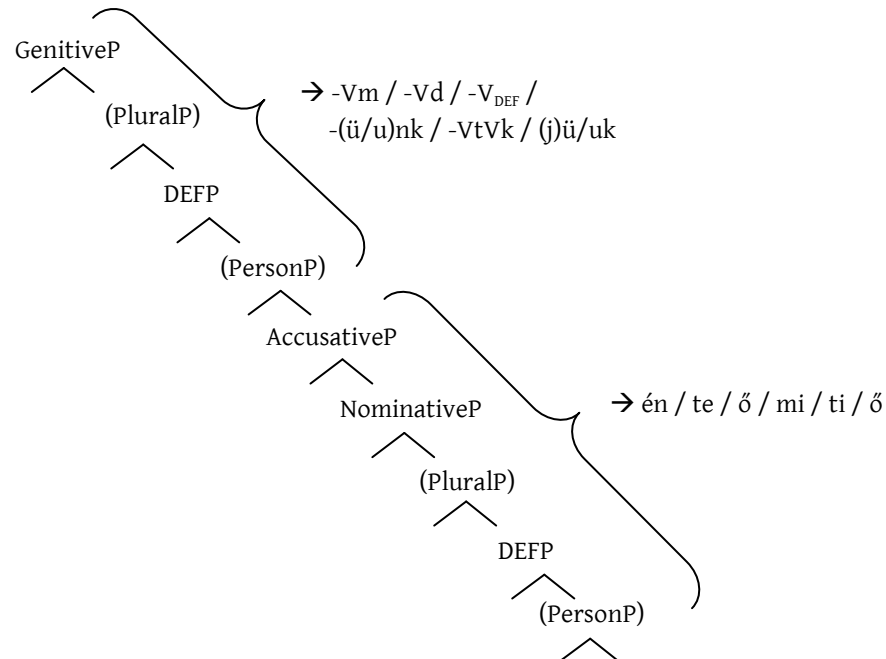
a t -i toll -at -ok
the 2.DEF -PL.ACC pen -2.DEF-PL.GEN

⁶⁰ É. Kiss (2002: 157) and Dékány (2011: 213-214) propose that the pre-possessee pronominal possessor is caseless.

(116) Spell-out of the layers of English possessive determiners



(117) Spell-out of the layers of Hungarian possessive determiners



As explained above, the decomposition of English possessive determiners in (116) is inspired by but also departs from Bernstein & Tortora (2005)'s proposal according to which *you-r*, *hi-s*, *it-s*, *ou-r* and *thei-r* come from the contraction of conjugated *be* and the

nominative pronouns *you*, *he*, *we* and *they* respectively. Bernstein & Tortora (2005: 1223, fn5) themselves observe that their claim that English possessive determiners contain a nominative pronoun is weakened by two facts. Interestingly, these facts suggest that possessive determiners contain an accusative pronoun instead. First, the possessive determiner *her* is homophonous with the accusative personal pronoun *her*, not with *she's*.⁶¹ Second, there is no homophony between the possessive determiners *his* [ɪz]⁶² and *he's* [hɪz]. Similarly, *our* [aʊə] and *we're* [wɪə] are not homophones. Bernstein & Tortora point out that the form *his* could be analysed as resulting from the contraction of *-s* onto the accusative personal pronoun *him* [hɪm], whose vowel is lax, like that of *his*. They add that, similarly, *our* could result from the contraction of *-r* onto the accusative personal pronoun *us*.⁶³ These data show that, for several forms of the English possessive determiner, an analysis according to which the pronominal possessor contains an accusative KP* is preferable.

Let us complete the inventory of possessive determiners by discussing the forms *your*, *its*, *my*, and *their*. The question arises what evidence there is in favour of treating these forms as containing either a nominative or an accusative KP*. First, Bernstein & Tortora (2005: 1223) consider *your* and *its* to contain the nominative pronouns *you* and *it* respectively. However, since the nominative forms of these pronouns is syncretic with their accusative forms, *you-* and *it-* in *your* and *its* might as well spell out an accusative KP. Moreover, the first morpheme *m-* of the form *my* is also identical to the first morpheme of the accusative pronoun *me*. Finally, if Bernstein & Tortora's alternative analysis of *his* and *our* is correct, *their* could also be analysed as the contraction of *-r* onto the accusative pronoun *them*.⁶⁴ Table 34 summarizes the forms discussed and provides their phonetic transcriptions.⁶⁵

⁶¹ I pointed out in footnote 35 that possessive *her* is considered by Bernstein & Tortora to be a suppletive form. In footnote 43, I assumed that *her* spells out the whole genitive KP*. Now, note that, as a genitive KP* is built on an accusative KP*, by the Superset Principle, if *her* can spell out the genitive KP*, it can also spell out the accusative KP*. This accounts for the homophony between the possessive determiner *her* and the accusative pronoun *her*.

⁶² The phonetic transcriptions are those of the weak, unstressed forms given in Jones (2003).

⁶³ Bernstein & Tortora (2005: 1223, fn 3) also note that in certain varieties of British English, the accusative personal pronoun *us* is used as a possessive pronoun instead of *our* (i).

- (i) *us holidays*
'our holidays'

In some varieties, *me holidays* 'my holidays' is attested as well. However, *me* in these varieties might be an unstressed form of *my* because it cannot be associated with a contrastive interpretation (ii).

- (ii) This is my / *me book, not your book. Bernstein & Tortora (2005: 1223, fn 3)

⁶⁴ Bernstein and Tortora (2005: 1223, fn 5) rightly point out that such an analysis should be complemented by an account of the elimination of the final consonants *-s* and *-m* of the accusative pronouns *his*, *him* and by an account of the change in vowel quality occurring between the forms *us* and *our*. I have to leave this, as well as a detailed

Table 34: English possessive determiners, personal pronouns and nominative pronouns + copula

Nominative pronoun + contracted copula	Nominative personal pronouns	accusative personal pronouns	possessive determiners
I'm [aɪm]	I [aɪ]	me [mi]	my [maɪ]
you're [jə ˈ]	you [ju]	you [ju]	your [jə (r)]
he's [hɪz]	he [hi]	him [ɪm]	his [ɪz]
she's [ʃɪz]	she [ʃi]	her [(h)əʔ]	her [(h)əʔ]
it's [ɪts]	it [ɪt]	it [ɪt]	its [ɪts]
we're [wɪəʔ]	we [wi]	us [(ə)s]	our [aʊəʔ]
they're [ðeəʔ]	they [ðeɪ]	them [ð(e)m]	their [ðeəʔ]

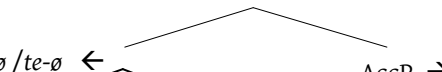
The conclusion of section 5.4.4.2 was that the final consonant of English possessive determiners cannot be a reduced form of conjugated *be*. Bernstein & Tortora's proposal according to which the first morpheme of possessive determiners must be a nominative pronoun (because only a nominative DP can trigger agreement on a copula) thus loses its rationale. In the present section, I have proposed to extend to all English possessive determiners an alternative analysis proposed by Bernstein & Tortora themselves for the forms *his* and *our*. This analysis takes the first morpheme of English possessive determiners to spell out a pronominal accusative KP*. Given the parallel argued for section 5.4.4.2 between the first morpheme of English possessive determiners and the Hungarian prepossessionee pronominal possessor (cf. examples (115)), this perspective on the former supports the analysis developed for Hungarian in section 5.4 according to which the prepossessionee pronominal possessor not only spells out a nominative but also an accusative case layer.

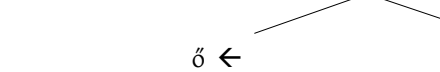
If the pre-possessionee pronominal possessor contains an accusative KP*, the question arises why this accusative KP* is never spelled out by the accusative marker *-t* in

nanosyntactic derivation of English pronouns and possessive determiners for future research. See Caha (2009: 273-292) for a nanosyntactic proposal as to the forms of genitive pronouns, possessive determiners and possessive pronouns in Old English, German, Latin and Czech, among others.

⁶⁵ Note that the Swedish possessive determiners *hennes* 'her' and *ens* 'one's' also appear to be built from an accusative personal pronoun to which a genitive marker is suffixed (thanks to Eric Lander for discussion):

	NOM	ACC	possessive determiner
3.SG.FEM	hon	henne	henne-s
3.SG.INDEF	man	en	en-s

(118) a. 

b. 

In this chapter, I have shown that the structure of Hungarian non-nominative pronouns is that of a possession construction. I have argued that this structure is composed of a genitive KP*_{possessor} which is merged as the sister of a KP*_{possessee}. In between the accusative and the genitive layer of the possessor KP*, the phi- and definiteness features of the pronoun are reduplicated. In the course of the derivation of the pronoun, the lower part of the genitive KP*, the Accusative KP*, raises on top of the KP*_{possessee}. The higher part of the genitive KP*, the reduplicated phi- and definiteness features and the genitive layer, is stranded. I have further proposed that it is the stranded definiteness layer which subextracts from 3rd person pronouns and is subsequently spelled out on finite verbs. This layer, however, cannot subextract from 1st and 2nd person pronoun. This leads to the incompatibility of these pronouns with the definite conjugation.

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6 Direct object marking with full DPs

6.1 Introduction

Recall from Chapter 3 that non-pronominal direct object DPs, just like 3rd person accusative pronouns, trigger the use of the definite conjugation on the finite verb. Indefinite direct objects, on the other hand, co-occur with the indefinite conjugation on the finite verb. I repeat the data below for convenience. In (1), the direct object is indefinite. The finite verb is suffixed by two morphemes which mark the person and number of the subject respectively. In (2), the direct object is a full definite DP. The morphemes encoding the phi-features of the subject occur on the finite verb but they are preceded by the object marker *-i*. Examples (2a) and (2b) show that the same object marker occurs regardless of whether the direct object is singular or plural. As the comparison between (2) and (3) reveals, the object marker which occurs in the presence of a full definite direct object is identical to the one which occurs when the direct object is a 3rd person pronoun.

- (1) (Ti) ismer-t-ek egy lány-t.
(You_{PL}) know-2-PL a girl-ACC
'You_{PL} know a girl.'
- (2) a. (Ti) ismer-i-t-ek a lány-t.
(You_{PL}) know-DEF-2-PL the girl-ACC
'You know the girl.'
- b. (Ti) ismer-i-t-ek a lány-ok-at.
(You_{PL}) know-DEF-2-PL the girl-PL-ACC
'You know the girls.'

- (3) (Ti) ismer-**i-t-ek** őt / őket.
 (You_{PL}) know-**DEF-2-pl** him / them
 ‘You know him / them.’

As mentioned section 4.4 of Chapter 4 the endings of the definite conjugation do not all analytically display a subject and an object marker. For instance in (4), the ending -*Vm* occurs to mark both the 1st person singular subject and the definite DP object. Observe that same ending -*Vm* occurs regardless of whether the direct object is a full DP or a personal pronoun.

- (4) (Én) ismer-**em** a lány-t / a lány-ok-at / őt / őket.
 (I) know-**1.SG.DEF** the girl-ACC / the girl-PL-ACC / him / them
 ‘I know the girl / the girls / him / them’

When the direct object is indefinite (or when the verb is intransitive), an ending of the indefinite conjugation must be used (5). Endings of the definite conjugation are ungrammatical in that case.

- (5) (Én) ismer-**ek** / *-em egy lány-t.
 (I) know-1.SG.INDEF 1.SG.DEF a girl-ACC
 ‘I know a girl.’

I therefore proposed in section 4.4 of Chapter 4 that the endings of the definite conjugation which do not display a subject and an object marker analytically are portmanteau morphemes. In other words, these morphemes spell out the features of the subject and the definiteness feature of the object in a synthetic manner.

In Chapters 4 and 5, I developed an account of the use of the definite conjugation in the presence of a 3rd person pronominal direct object (examples (3) and (4)). As just pointed out, the same endings of the definite conjugation also occur when the direct object is a full DP. In the present chapter, I therefore build on the analysis of Chapters 3 and 4 and propose a nanosyntactic account of the use of the definite conjugation with full definite direct object DPs (examples (2) and (4)). This account proceeds in several steps. In section 6.2, I argue that the existence of a definite and an indefinite conjugation is an instance of Differential Object Marking (henceforth ‘DOM’). More specifically, I propose that direct objects which co-occur with the definite conjugation are differentially marked. In section 6.3, I lay the foundations for a nanosyntactic analysis of DOM. I argue that the KP of differentially marked direct objects is built by adding a definiteness layer on top of the KP

of non-differentially marked direct objects. In section 6.4, I show how this analysis captures the occurrence of the definite conjugation with full definite direct object DPs in Hungarian. In section 6.5 I discuss some consequences of the proposal. Section 6.6 concludes.

6.2 Differential Object Marking in Hungarian

As observed in Bárány (2012), Bossong (1998: 205, 241), Coppock (2013: 7, 14) and Lyons (1999: 86-87, 207-210), the use of distinct conjugation paradigms in function of the (in)definiteness of the direct object in Hungarian is reminiscent of DOM patterns. After presenting the basic characteristics of the DOM phenomenon, I discuss how it surfaces in Hungarian.

6.2.1 The basic characteristics of DOM

DOM is a general term for crosslinguistically diverse patterns in which direct objects whose referents are high on a certain semantic scale are morphologically differentiated from direct objects whose referents are lower on this same scale (Aissen 2003: 436, Bossong 1991, 1998, Lazard 1984, 2001: 879).¹ Consider the example from Tatar, a Turkic language, given in (6). In (6a), the direct object *kitap* ‘book’ is definite and it is suffixed by the marker *-nï*. In (6b), the direct object is indefinite and appears bare.

- (6) a. *bala-lar bu kitap-nï ukïy-sïnnar.*
 children-PL this book-ACC⁺ read-OPT.3PL
 ‘The children should read that book.’
 b. *bala-lar kitap ukïy-lar*
 children-PL book read-3.PL
 ‘The children are reading a book / books.’

Bossong (1998: 248, his (87))

Cross-linguistically, the substantive content of the scale in question varies. The most common semantic ilks at play are the degree of animacy and/or of definiteness of the direct object’s referent. However, the referent’s gender, person, number features, its topical or focal nature as well as the aspect, mood or tense of the predicate also play a role

¹ DOM is crosslinguistically very frequent. It is found in many language families such as Indo-European, Finno-Ugric, Bantu, Turkic and Micronesian (Bossong 1991: 144 ; Lazard 2001: 874). See Lyons (1999: 212) and Bossong (1985, 1991, 1998) for detailed expositions of the cross-linguistic variation in DOM.

in some languages (Bossong 1998: 203 ; Aissen 2003: 436-437; Heusinger et al. 2008: 1-2 ; Moravcsik 1978: 275-281 ; Woolford 1995, 1999).^{2,3}

As an illustration, consider languages in which definiteness is the determining factor behind DOM. Typological works such as Lazard (2001) and Bossong (1985, 1991, 1998) have revealed that the higher a direct object is on the definiteness hierarchy in (7), the more likely it is to co-occur with a differential marker (Aissen 2003: 436-437). Additionally, if a direct object of a certain category is differentially marked, so will direct objects of the higher categories be. Direct objects of lower categories will not necessarily be marked.⁴

(7) personal pronoun > proper name > definite NP > indefinite specific NP > non-specific NP
Aissen (2003: 437, her (4b))⁵

In Hebrew, for instance, all definite direct objects are case marked while indefinite ones are unmarked (Aissen 2003: 453-455; Givón 1978: 305; but see Danon 2006 for a different view). For instance, in (8a), the direct object is a definite DP and as a result, it has to be

² See also Næss (2004), who argues that DOM systems are driven by the involvement of the direct object's referent in the event depicted by the verb. I will not discuss this hypothesis here.

³ Often, two or more scales are at play in a single language. The most frequent two-dimensional DOM system combines the animacy and the definiteness hierarchies (Aissen 2003: 458-472; de Swart 2007: 129, 174-194; Heusinger et al. 2008: 1, 7 ; see Klein & de Swart 2011 for a formalization). For instance, in Hindi, all direct objects referring to human entities (and some other animates) are case-marked, independently of their degree of definiteness. Inanimates, however, are marked only if they are definite (Aissen 2003: 458). A similar pattern is found in Palauan, as we will see shortly. See Aissen (2003) for an analysis of DOM in the framework of Optimality Theory and Keine & Müller (2008) for an extension of Aissen's proposal. For a critical review of Aissen's account, see Haspelmath (2008) and Næss (2004). DOM has not yet been studied in Nanosyntax. In the present chapter, I will lay the foundations for a nanosyntactic account of DOM. However, a full-fledged formalization will have to await further research.

⁴ Functionally, the phenomenon of DOM is often explained in terms of markedness. In transitive constructions, semantic notions such as animacy, definiteness, and topichood are typical characteristics of subjects while inanimacy, indefiniteness and rhematicity are typical of direct objects (Comrie 1979: 19; 1989: 128). The role of DOM is thus said to be that of marking those direct objects which are atypical due to their high degree of animacy, definiteness or topichood (Aissen 2003: 437-438 ; Bossong 1998: 202, 223 ; Lazard 2001: 879-880). For discussions of the shortcomings of this functional explanation see Bossong (1998: 223), Cristofaro (2013), Kornfilt (2008: 82), Næss (2004), Primus (2012) and von Heusinger & Kornfilt (2005).

⁵ As is well known, this definiteness hierarchy as well as the animacy hierarchy presented below play a role beyond DOM (Primus 2010: 26-27) and were already studied in Croft (1988), Dixon (1979), Greenberg (1978), Silverstein (1976), among others. Additionally, it should be noted that these hierarchies are a simplification of a more complex array of semantic and pragmatic notions (Bossong 1998: 203-205). See footnote 10 for details. Finally, I point out that there is debate whether specificity and definiteness belong to the same scale, as in (7). For instance, von Heusinger (2002) argues that specific NPs are not a subclass of indefinite NPs but form an independent class. For the present purposes, though, I adopt the traditional view depicted in (7).

prefixed by the morpheme *'et-*. When the direct object is indefinite, as in (8b), this marker is necessarily absent.^{6,7}

- (8) a. Ha-seret her'a **'et**-ha-milxama.
the-movie showed **ACC**-the-war
'The movie showed the war.'
b. Ha-seret her'a (***'et-**)milxama.
the movie showed (**ACC-**)war
'The movie showed a war.'

Aissen (2003: 453, her (25a,b))

⁶ Bossong (1998: 212) observes that even though in most cases, differential marking is instantiated by an overt marker on the one side and a null marker on the other, cases with two distinct non-null markers are also found. Consider the following examples from Bikol, a Philippine language. When the subject is the topic of the clause, a direct object is marked by *ning-* if it is indefinite and by *sa-* if it is definite (i), (ii) (Comrie 1978: 323).

- (i) nag-pákul 'ang-babáye ning-kandíng.
AGENT-hit TOP-woman ACC/INDEF-goat
'The woman hit a goat.'
(ii) nag-pákul 'ang-babáye sa-kandíng.
AGENT-hit TOP-woman DAT/DEF-goat
'The woman hit the goat.'

In section 6.4.2, I argue that Hungarian also displays two distinct non-null accusative markers.

⁷ In the literature, differential object markers are often glossed 'ACC' (cf. for instance Aissen's example in (8a)). This suggests that a nominal can only bear accusative case if its referent is high on a certain semantic hierarchy. Danon (2006), for instance, argues that this is the case in Hebrew. I will however argue below that both direct objects that are high on a semantic hierarchy and direct objects that are low on this same hierarchy bear accusative case. This idea is supported by the fact that in languages where no DOM-system is at play, all nominals can bear accusative case, regardless of whether they are definite or indefinite, or animate or inanimate for instance. To illustrate this, I reproduce the sample paradigm of Latin feminine nouns given in Morwood (1999: 16-17). We can see that regardless of whether a noun refers to an animate or an inanimate entity, it is marked for accusative case.

	puella 'girl'	r-ēs 'thing'	urbs 'city'
Nominative	puell-a	r-ēs	urbs
Accusative	puell- am	r- em	urb- em
Genitive	puell-ae	r-eī	urb-is

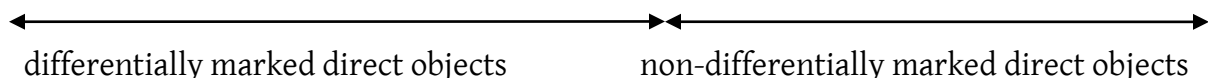
Bossong (1998)'s glosses, an example of which is provided in (i), capture the idea that direct objects bear accusative case, regardless of their degree of animacy or definiteness. To represent the accusative case borne by definite/animate direct objects, Bossong uses the gloss ACC⁺. The accusative case borne by direct objects that are lower on the semantic scales are glossed by ACC⁻.

- (i) prete Sartoli cunniscia ∅ l'omi in ginerale e a Ziu don Santu in particolare.
prêtre Sartoli connaissait **ACC⁺** l'homme en général et **ACC⁺** oncle don Santu en particulier
'Priest Sartoli knew men in general and uncle don Santu in particular.'

Corsican, Bossong (1998: 226, his (41), English translation and emphasis are mine)

For Hebrew, thus, the definiteness scale can be represented as in (9). Definite nominal phrases, as well as proper names and personal pronouns are differentially marked. Nominal phrases that are part of a lower category are not marked.

(9) personal pronoun > proper name > definite NP > indefinite specific NP > non-specific NP



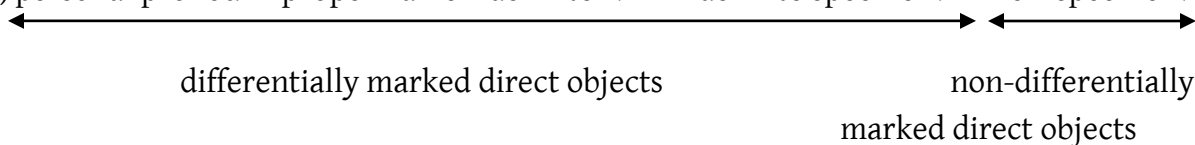
Note however that the cut off point in the scale varies from language to language.⁸ In Turkish, for instance, not only definite direct objects (10a) but also specific indefinite ones (10b) are differentially case-marked (Aissen 2003: 453-455, Kornfilt 2008: 81-82, Öztürk 2005). Non-specific indefinites, on the other hand, do not bear any differential case marker (10c).⁹

- (10) a. (Ben) kitab-ı oku-du-m.
 I book-ACC read-PST-1.SG
 ‘I read the book.’
 b. (Ben) bir kitab-ı oku-du-m.
 I a book-ACC read-PST-1.SG
 ‘I read a certain book.’
 c. (Ben) bir kitap(*-ı) oku-du-m.
 I a book read-PST-1.SG
 ‘I read a book.’

Turkish, Kornfilt (2008: 81, her (1))

In Turkish, the definiteness scale can thus be represented as in (11).

(11) personal pronoun > proper name > definite NP > indefinite specific NP > non-specific NP



⁸ This cut off point also varies diachronically (Bossong 1991: 152-153). For instance, the evolution of Spanish DOM is discussed in Aissen 2003: 462-465, 471-472). See also the references mentioned in footnote 11 below for the evolution of DOM in Slavic languages.

⁹ According to Lyons (1999: 203-204), the semantic ilk at play in Turkish DOM is not definiteness or specificity but rather referential prominence.

Let us now turn to animacy-driven DOM. This type of DOM follows the animacy scale in (12). If a noun on this hierarchy is differentially marked, then all nouns which belong to the same or to a higher category are also differentially marked. This is not necessarily the case for nouns belonging to a lower category (Aissen 2003: 437).

(12) Human > Animate > Inanimate

Aissen (2003: 437, her (4b))¹⁰

As is well-known, animacy-driven DOM is at play in most Slavic languages (Comrie & Corbett 1993: 16).¹¹ In Russian, for instance, masculine singular direct objects referring to animates bear a differential object marker (13a) while masculine nouns referring to non-animates are not suffixed by this marker (13b) (Wade 1992: 47-48 ; Timberlake 2004: 166).¹²

- (13) a. Miša uvidel kot-**a** / brat-**a**.
 Misha saw cat-DOM / brother-DOM
 'Misha saw the cat/the brother.'
 b. Miša uvidel dom (*-a).
 Misha saw house
 'Misha saw the house.'

based on Haspelmath (2008: 2, his (4))

¹⁰ As an illustration that these scales can be further refined, consider the following, more detailed animacy hierarchy :

(i) deictic (especially 1st / 2nd person pronouns > 3rd pers. pronoun) > proper nouns > human > animate > count > mass

adapted from Bossong (1998: 203, his (7)), my translation

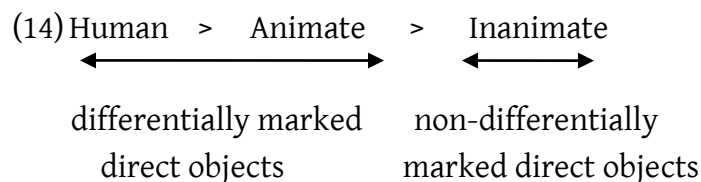
An even more fine-grained hierarchy is presented in Bossong (1998: 214, his (18), my translation) for Old Bulgarian:

(ii) pronouns > pers > proper nouns > God > slaves > adult sons > angels > animals > young sons > devils > children in general > spirits > inanimates > mass nouns

¹¹ For a description of the diachronic and cross-linguistic variation of the DOM-systems in Slavic, see Bossong (1998: 209-218), Comrie & Corbett (1993) and Huntley (1980).

¹² In the singular, the animacy-driven split only affects masculine nouns in Russian. In the plural, all nouns referring to animates are differentially marked, independently of their gender (Wade 1992: 49 ; Timberlake 2004: 166). This suggests that the number and gender of direct objects are also involved in DOM in Russian (and in Slavic in general). I abstract away from this here.

The animacy scale for Russian masculine nouns can thus be represented as follows:



Russian DOM is further discussed in section 6.3.2.

In this section, I have illustrated the fact that direct objects often display a two-way morphological split which encodes a semantic distinction. In other words, the syntactic function ‘direct object’ does not correspond to a uniform morphological class. I elaborate on this fact in section 6.3. Before doing this, however, I turn to Hungarian and argue that the presence of the direct object marker on the finite verb is an instance of definiteness-driven DOM.

6.2.2 DOM in Hungarian

In Hungarian two types of direct objects are also distinguished: those which co-occur with the definite conjugation and those which co-occur with the indefinite conjugation. Similarly to the direct object split in Hebrew and Turkish discussed in the previous section, the difference between these two types of direct objects is definiteness-driven. However, as we have seen in Chapter 3, not only definite direct objects but also some indefinite ones co-occur with the definite conjugation. That is, the cut-off point on the definiteness hierarchy is not always clear cut in Hungarian. I repeat some of the most representative examples below.

Definite direct objects all co-occur with the definite conjugation.¹³ Indefinite direct objects usually co-occur with the indefinite conjugation but possessed indefinites (15) and the interrogative pronouns *melyiket* ‘which’ (16) are only compatible with the definite conjugation in standard Hungarian.

- (15) Lát-om / *lát-ok öt ember-ed-et.
 See-1.SG.DEF / see-1.SG.INDEF five man-2.SG-ACC
 ‘I see five of your men.’

Bartos (2001: 313, his (3b))

¹³ I set aside *minden* noun phrases and 1st and 2nd person pronouns. See the discussions in Chapter 3.

- (16) Melyiket lát-om / *-ok ?
 Which.one see-1.SG.DEF / 1.SG.INDEF
 ‘Which one I am seeing?’

adapted from Marác (1991: 82, his (5c’))

Recall also that specific indefinites are not compatible with the definite conjugation (17).

- (17) Egy bizonyos könyv-et olvas-ok /*-om.
 A certain book-ACC read-1.SG.INDEF / *-1.SG.DEF
 ‘I read/am reading a particular book.’

Thus, I assume that, on the definiteness scale, the cut between differentially and non-differentially marked direct objects is situated somewhere between the category of definite and specific indefinite noun phrases (18).¹⁴

- (18) personal pronoun > proper name > definite NP > > indef. specific NP > non-specific NP
-
- differentially marked direct objects non-differentially marked
direct objects

Observe that the choice of the conjugation is determined by almost the same semantic conditions which are at play in the use of the differential object marker *’et* in Hebrew (cf. example (8) above). This similarity led several authors to propose that Hungarian definiteness marking is an instantiation of DOM on verbs (Bárány 2012; Bossong 1998: 205, 241; Coppock 2013: 7, 14; Lyons 1999: 86-87, 207-210). I follow these authors and propose that the definite conjugation in Hungarian and the use of a differential object case marker (or preposition) in languages such as Hebrew and Turkish are one and the same phenomenon. In the following section, I provide data from Palauan which support this view. In section 6.4, I address the fact that the differential object marker appears on the finite verb and not on the direct object in Hungarian.

¹⁴ Given the examples mentioned in (15) and (16), it seems that the hierarchy in (18) could be refined so as to display the categories ‘possessive NP’ and ‘subset of D-linked set’ in between ‘definite NP’ and ‘non-specific NP’. For my present purposes, though, I do not need to elaborate on this. As pointed out in footnotes 5 and 10, semantic scales often need to be refined. It might thus be that the position of Hungarian direct objects on the definiteness hierarchy would be clearer on a more refined hierarchy.

6.2.3 Support for the proposal

Georgopoulos (1991: 24-36) reports that in the Austronesian language Palauan, direct objects do not all behave alike syntactically. In the imperfective aspect, when a direct object refers to a human entity, it is accompanied by the preposition *er*. The appearance of the preposition is independent of the definiteness and number of the direct object (19a, b).¹⁵ The same preposition occurs with non-human referents but only if they are definite and singular (19c). In (19d), the direct object's referent is neither human nor singular definite and it appears without the preposition.

- (19) a. ng'emolt el ngoltoir **er** a Tmerukl a Latii.¹⁶
3s-clear COMP R-3s-love P Tmerukl Latii
'It's clear that Latii loves Tmerukl.'

- b. a sensei a mengelebed **er** a rengalek.
teacher R-hit P children
'The teacher is hitting the children.'

Georgopoulos (1991: 35, her (36a), (27a))

- c. Ng-milengelebed **er** a bilis.
3s-Im-hit P dog
'S/he hit the dog.'

- d. Ng-milengelebed a bilis.
3s-Im-hit dog
S/he hit a dog /the dogs /some dogs.

Georgopoulos (1991: 29, her (14a, b))

These data from Palauan clearly resemble the definiteness- and animacy-driven DOM cases presented in section 6.2.1: direct objects whose referents are high on the animacy and/or definiteness scales are marked while direct objects whose referents are lower appear without overt marker.

¹⁵ As far as I could determine, Georgopoulos however does not provide any example of a direct object preceded by *er* whose human referent is indefinite.

¹⁶ Georgopoulos (1991: 32) writes that the unglossed morpheme *a* accompanies all nominals except pronouns and that it neither marks definiteness nor case. It is not clear to me why *a* also appears on the left of the finite verb in (19b). As for the glosses, *s* stands for 'singular', *p* for 'plural', *R* for 'realis mood', *P* for 'preposition', *Pf* for 'perfective aspect' and *Im* for 'imperfective aspect' (Georgopoulos 1991: 237).

In (19), the verbs are in the imperfective aspect. Georgopoulos (1991: 29) points out that the way direct objects are marked in the perfective aspect is different. However the split between the two semantic categories of direct objects remains the same. In the perfective aspect, direct objects which refer to humans co-occur with an object marker on the verb (20a, b). Direct objects which do not refer to humans co-occur with a marker on the verb only if they refer to a specific, singular entity (20c). In (20d), the indefinite interpretation of the direct object leads to the absence of the object marker.

- (20) a. *akumdasu el kmo te'illeded-ii a rubak a rebuik.*
 1s-think Comp R-3p-hit-3s old.man boys.
 'I think the boys hit the old man.'

Georgopoulos (1991: 42, her (36))

- b. *Ak mils-terir a retede el sensei.*¹⁷
 I saw-3p three teacher
 'I saw three teachers.'

Woolford (1999: 4-5, her (6b))

- c. *te-'illebed-ii a bilis a rengalek.*
 3p-Pf-hit-3s dog children
 'The kids hit the dog.'

- d. *te-'illebed a bilis a rengalek.*
 3p-Pf-hit-Ø dog children
 'The kids hit a dog/the dogs/some dog(s).'

Georgopoulos (1991: 30, her (15a, b))

Summing up, the same semantic conditions lead certain direct objects in Palauan to be marked differently from others by means of either a preposition or a marker on the finite verb. This provides support for the claim of section 6.2.2 according to which the marking of the object's definiteness on the verb in Hungarian is an instance of DOM.^{18, 19}

¹⁷ Though not glossed in Woolford's example, *el* is the linker which joins head nouns with their modifiers (Georgopoulos 1991: 31, 237).

¹⁸ Joseph (1975) and Woolford (1995) discuss data similar to those provided by Georgopoulos (1991). Woolford (1995: fn 1) argues that the trigger of DOM in Palauan is not definiteness but specificity. This does not hinder the point being made in this section.

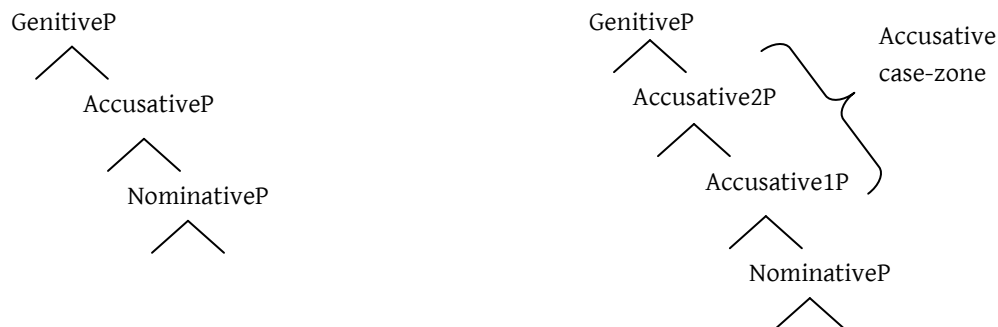
¹⁹ Several other languages have been argued to have verbal-DOM: other Uralic languages are discussed in Bossong (1998: 241-242) and Bányi (2012: 16-18), Woolford (1999) studies data from Bantu languages and Lyons (1999: 207-210) mentions Macedonian. I come back to this in section 6.5.3.

In the following section, I lay the foundations for a nanosyntactic analysis of DOM. I base myself on a comparison of direct object marking in Japanese and Hebrew. In sections 6.3.2 and 6.4, I apply this theoretical proposal to the Russian and Hungarian DOM patterns discussed in 6.2.1 and 6.2.2, respectively.

6.3 A first step towards a nanosyntactic account of DOM

In this section, I argue that the DOM data discussed above show that Caha (2009)'s accusative case layer is actually a case-zone which contains (at least) two distinct case layers situated between the nominative and the genitive case layers. In (21a), I reproduce the lower part of Caha's case sequence, which is composed of three case layers. In (21b), I present the alternative structure with four layers that I put forth in this section. Anticipating on the following discussion, I take the layer Accusative2P to be merged over Accusative1P when direct objects in a language are high on the semantic scale at play in that language.

- (21) a. The lower part of Caha's case sequence b. Sequence with two accusative layers



In the following sections, I show how the structure in (21b) enables us to account for direct object marking in languages with and without a DOM system.

6.3.1 Japanese vs Hebrew direct object marking

In Japanese, none of the semantic ilks mentioned above influences the marking of direct objects by the suffix *-o*.²⁰ Starting with the animacy scale, the following examples illustrate that direct objects are marked alike regardless of whether they refer to humans ((23), (24), (26)), animals (25), count or mass inanimates (22), (27). Turning to the definiteness scale, all

²⁰ I thank Reiko Vermeulen for the Japanese data in this section and discussion thereof.

the a.-examples show that direct objects suffixed by -o may be interpreted as definite, indefinite, specific or non-specific. The use of *ano* and *aru* in the b.-examples is to force the definite reading of the direct objects. Similarly, the second sentence in (23) guarantees that ‘a woman’ has a specific referent. Additionally, example (26) shows that person and gender do not influence case-marking. Finally, the examples in (28) show that aspect, or more precisely (a)telicity, also has no influence on -o marking.²¹ To use Bossong (1991: 146)’s term, accusative in Japanese can thus be said to be “non-differential” (Aissen 2003: 455).^{22, 23}

- (22) a. John-ga sara-o aratta.
 John-NOM plate-ACC washed
 ‘John washed a specific / a non-specific/ the plate(s) / plates.’²⁴
 b. John-ga ano sara-o aratta.
 John-NOM that plate-ACC washed
 ‘John washed that plate.’
- (23) John-ga (aru) zyosee-o otozureta. Kanozyo-no namae-wa Mari da.
 John-NOM (certain) woman-ACC visited. she-GEN name-TOP Mari COP
 ‘John visited a (certain) woman. Her name is Mari.’
- (24) a. John-ga sensee-o otozureta.
 John-NOM teacher-ACC visited
 ‘John visited a specific / a non-specific teacher / the teachers (s) / teachers.’

²¹ Japanese direct objects can be marked by -wa instead of -o when they are topicalized. However, -wa appears on any topicalized argument and is thus not a differential object marker.

²² To be accurate, it should be noted that certain Japanese verbs take direct objects which are not marked for accusative case. For instance, certain (generally stative) verbs take a nominative direct object and a dative subject.

(i) aro-ni Hanako-no kimoti-ga wakarū.
 Taro-dat Hanako-gen feeling-nom understand
 ‘Taro understands Hanako’s feelings.’

Whether this is an instance of DOM or not is not clear to me. I abstract away from this fact here.

²³ According to Aissen (2003: 455), Dhalandji (Australia) is another language in which accusative is non-differential. Bossong (1991: 146, 151) argues that accusative case in Latin, Greek and Sanskrit is also non-differential. The fact that, in Latin for instance, masculine and feminine nouns have distinct nominative and accusative forms while the nominative and accusative forms of neuter nouns are syncretic does not constitute an instance of DOM. This is because in Latin, the split between masculine and feminine nouns on the one side and neuter nouns on the other is not (completely) based on semantic properties (Bossong 1991: 151-152).

²⁴ Japanese has no definite or indefinite articles similar to English *a* or *the*. Also, nouns are usually unspecified for number.

- b. John-ga ano sensee-o otozureta.
John-NOM that teacher-ACC visited
'John visited that teacher.'
- (25) a. John-ga neko-o nadeta.
John-NOM cat-ACC stroked
'John stroked a specific / a non-specific / the cat(s) / cats.'
- b. John-ga ano neko-o nadeta.
John-NOM that cat-ACC stroked
'John stroked that cat.'
- (26) a. John-ga watasi-o / anata-o / kare-o / kanozyo-o otozureta.
John-NOM I-ACC / you-ACC / he-ACC / she-ACC visited
'John visited me / you_{SG} / him'
- b. John-ga watasi-tati-o / anata-tati-o / karera-o otozureta.
John-NOM I-PL-ACC / you-PL-ACC / they-ACC visited
'John visited us / you_{PL} / them.'
- (27) a. John-ga sake-o nonda.
John-NOM sake-ACC drank
'John drank sake / a (specific) / a non-specific sake / the sake(s) / sakes.'
- b. John-ga ano sake-o nonda.
John-NOM that sake-ACC drank
'John drank that sake.'
- (28) a. John-ga kesa ronbun-o kaki-oeta.
John-nom this morning article-acc write-finished
'John finished writing the article this morning.'
- b. John-ga kesa ronbun-o ka-ite-ita
John-nom this morning article-acc write-prog-past
'John was writing an article this morning.'

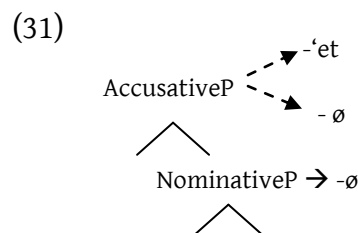
This absence of morphological split in Japanese could suggest that the single accusative layer in structure (21) is sufficient to represent the KP merged on top of direct object arguments. This KP and its spell-out by *-o* are shown in (29).

Recall however the definiteness-driven DOM pattern of Hebrew presented in (8) and repeated below for convenience.

- (30) a. Ha-seret her'a 'et-ha-milxama.
 the-movie showed ACC-the-war
 'The movie showed the war.'
 b. Ha-seret her'a (*'et-)milxama.
 the movie showed (ACC-)war
 'The movie showed a war.'

Aissen (2003: 453, her (25a,b))

Unlike in Japanese, Hebrew direct objects display a morphological split. Importantly, this split is not a matter of allomorphy but reflects a semantic distinction: indefinite direct objects do not bear an overt case-marker (30b) while definite direct objects are prefixed by the overt case-marker 'et- (30a). Hebrew thus marks direct objects with two distinct morphemes while Japanese only uses one morpheme. This suggests, that the constituent composed of the accusative and the nominative layer is associated with two lexical items in the lexicon (31).

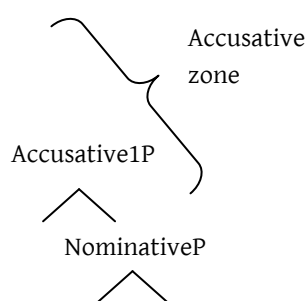


However, this is not possible in Nanosyntax: a single syntactic structure cannot be associated with two different functional morphemes since there would then be no principled way to account for the choice of one morpheme over the other. Rather, each morpheme must be associated with its own syntactic structure.²⁵ Thus, in order to capture the existence of two lexical items to encode the function of direct object in Hebrew, we need to make the structure in (21a) more fine-grained in such a way that each morpheme can be associated with its own constituent. Specifically, we need two constituents. This refined structure should also be able to derive the fact that these two constituents are spelled out by a single morpheme in Japanese. In other words, this structure must capture

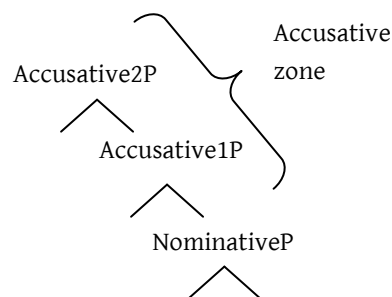
²⁵ Note that the fact that DOM is a crosslinguistically widespread phenomenon makes an analysis of the choice between 'et- and -∅ in Hebrew in terms of free allomorphy or accidental homophony very unlikely.

the existence of a syncretism between the two constituents. As syncretisms can only occur between morphemes whose structures are in a subset/superset relation with one another (cf. section 2.2.3 of Chapter 2), the refined structure must display two accusative constituents, one of which must be part of the other. The only way to achieve this is to assume that the accusative layer of (21a) is actually a direct-object zone, in which two adjacent accusative case layers can be merged. I call these layers ‘Accusative1P’ and ‘Accusative2P’. The structure with one accusative layer merged in the accusative case zone is displayed in (32a). Merging the two accusative layers yields (32b).

(32) a.

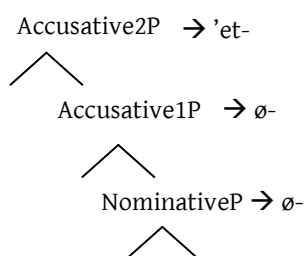


b.



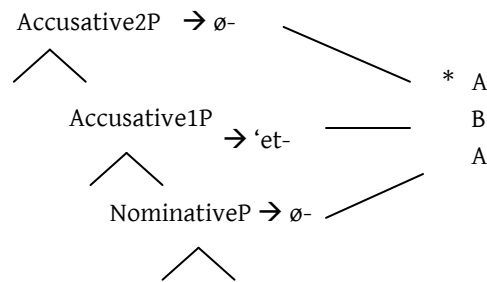
The question now arises which of these two KPs is linked to the interpretation of a direct object as indefinite and which leads to a non-specific interpretation. Recall from example (30) that Hebrew indefinite direct objects do not bear an overt case-marker. As such, their form is syncretic with that of nominative DPs. The layer merged in the KP of indefinite direct objects must thus be adjacent to that of the nominative layer. This layer corresponds to Accusative1P in (32). This leaves Accusative2P as the layer whose presence leads to the definite interpretation of a direct object. Each structure with its Hebrew spell-out is represented in (33).

(33)

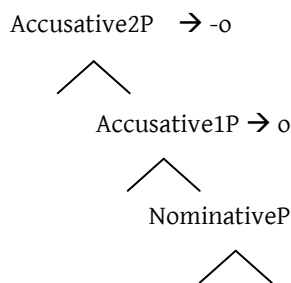


The alternative structure, in which Accusative2P is merged below Accusative1P, is impossible for the following reason. The null marker of indefinite direct objects and that of nominative DPs would be syncretic across the marker ‘*et-*’ of definite direct objects. That is,

(34)

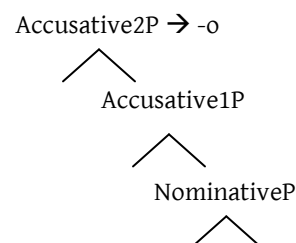
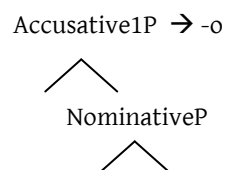


(35)



(36)

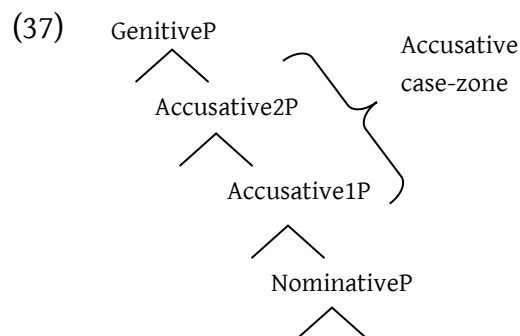
b. Accusative marker on Japanese definite direct objects



The Nanosyntactic spell-out mechanism thus enables us to capture the Hebrew and Japanese data: the underlying structures are identical in both languages, and the morphological difference between their direct objects arises only from the way the case layers are “packaged” in the lexicon.²⁶

Finally, consider the following. The Accusative2P layer projects only when a direct object is high on a semantic scale. Let us take Hebrew and the definiteness scale as an example. In Hebrew, Accusative2P is merged above Accusative1P when a direct object is definite. However, definiteness is a property encoded within the DP. I therefore assume that the projection of Accusative2P arises from the reduplication of the direct object’s DP-internal definiteness-layer.²⁷

The data discussed in this section provided evidence for the claim that Caha (2009)’s three layer sequence in (21a) needs to be refined. Specifically, I proposed that Caha’s accusative layer must be split into two layers: the Accusative1P layer is merged in the KP of all direct objects and Accusative2P is merged on top of Accusative1P when a direct object is high on a semantic scale. However, I have not yet provided evidence that Accusative2P is base-generated below the genitive layer, as suggested by the representation in (21), repeated in (37). In the next section, the discussion of the Russian animacy-driven DOM pattern presented in (13) will provide us with this missing piece of evidence.



²⁶ The fact that the case-markers are suffixed in Japanese and prefixed in Hebrew has to do with the height of noun movement over the case layers (Caha 2009: 27) and is thus orthogonal to the present discussion.

²⁷ Recall from section 6.2.1 that in certain definiteness-driven DOM systems, the morphological cut is between definite vs indefinite direct objects while in other systems, the cut is between specific and non-specific direct objects. This could suggest that the Accusative2P layer should itself be split into a definiteness and a specificity layer. From the perspective adopted here, these two layers within the KP of the direct object could be the reduplication of the definiteness and specificity layers which, according to Puskás & Ihsane (2001), are merged within DPs. I do not elaborate on this theoretical possibility here.

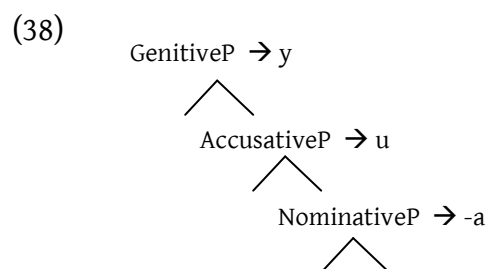
6.3.2 Animacy-driven DOM in Russian

Consider first Russian singular nouns of the so-called second declension (most of which are of feminine gender). As illustrated in Table 35, regardless of whether they refer to an animate or to an inanimate entity, these nouns take a distinct ending for each of the three cases nominative, accusative and genitive (Timberlake 1993: 841).

Table 35: Declension II (based on Timberlake 1993: 842, 2004: 141 ; Wade 1992: 69, transcriptions are mine)

	Inanimate			Animate		
	kárta 'map'	gorá 'mountain'	dýnja ²⁸ 'melon'	žénščina 'woman'	žená' 'wife'	njánja 'nurse'
Nominative	kárt-a	gor-á	dýnj-a	žénščin-a	žen-á	njánj-a
Accusative	kárt-u	gór-u	dýnj-u	žénščin-u	žen-ú	njánj-u
Genitive	kárt-y	gor-ý	dýn[j]-i	žénščin-y	žen- ý	nján[j]-i

As illustrated in (38), the three-layer case sequence in (21a) is sufficient to capture this paradigm. When only the nominative layer is present, for instance when the noun is used as a subject, the ending on the noun is *-a*. When the argument is the direct object of a verb (or the complement of a preposition which selects an accusative complement), the accusative layer is added above the nominative layer. The resulting constituent is spelled out by *-u*. When the argument is for instance a possessor, it bears the genitive marker *-y*, which spells out the constituent composed of the three layers genitive, accusative and nominative.



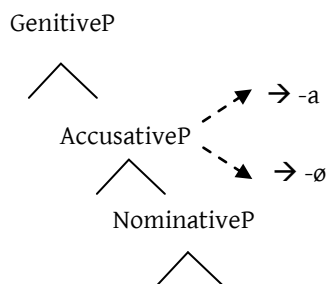
²⁸The glide *-j-* indicates the palatalization of the stem final consonant triggered by the suffixed vowel. As Leonid Kulikov (p.c.) pointed out to me, in the ISO transcription of the Cyrillic alphabet, palatalization is orthographically represented by *-j-* when the suffixed vowels are *-a* and *-u* but not when the suffixed vowel are *-i* and *-e*. The palatalization of the stem final consonant is nevertheless also audible when *-i* and *-e* are suffixed. I thus add *-j-* in brackets to signal the phonological realization of the palatalization despite its absence in the spelling.

Let us now turn to masculine singular nouns. As already mentioned in 6.2.1, when these nouns bear accusative case, e.g. when they are used as direct objects, they display a morphological split. That is, contrary to the nouns of the second declension, in the accusative case, singular masculine nouns are not all marked in the same way. The marker they take depends on whether they refer to an animate or to an inanimate entity. Consider in this respect the direct objects of example (13), repeated below in (39). In this example the direct objects which refer to an animate entity, *kot-a* ‘cat’ and *brat-a* ‘brother’, are suffixed by the accusative marker *-a*. The noun *dom* ‘house’, which refers to an inanimate entity, bears no overt case marker. As the form of the accusative marker does not depend on the phonological properties of the noun or on the declension class it belongs to (i.e. these two forms are not allomorphs) but reflects a semantic distinction, the morphemes *-a* and *-∅* must spell out different structures. Thus, as was the case for Hebrew, structure (21a) with a single accusative layer is not sufficient: if there was only one accusative case layer, there would be no way to capture the systematic difference in case-marking between animate and inanimate direct objects. In order to capture this difference, the structure has to be refined. This is illustrated in (40).

- (39) a. Miša uvidel kot-a / brat-a.
 Misha saw cat-DOM / brother-DOM
 ‘Misha saw the cat/the brother.’
 b. Miša uvidel dom / *-a.
 Misha saw house -DOM
 ‘Misha saw the house.’

Haspelmath (2008: 2, his (4)), glosses added

(40)



While the accusative markers of nouns which refer to animate and inanimate entities are distinguished in the masculine gender, they are syncretic in the feminine. In order to capture this morphological difference between masculine and feminine nouns by means of a single structure, it suffices, once again, to assume that the accusative layer in (21a) is a

direct-object zone in which one or two structurally adjacent accusative layers can be merged, as in (32a, b). The number of accusative layers merged will depend on whether the referent of the direct object is animate or not.

In order to determine the position of these two layers in the case sequence, we again need to look at syncretisms. As shown in Table 36, the accusative and nominative endings of inanimate nouns are identical.

Table 36: Nominative-Accusative and Accusative-Genitive syncretisms in Russian (based on Timberlake 1993 :839, Wade 1992: 54, transcriptions are mine)

	Inanimate			Animate		
	<i>čin</i> 'rank'	<i>muzěj</i> 'museum'	<i>portfél'</i> 'briefcase'	<i>studént</i> 'student'	<i>gerój</i> 'hero'	<i>test'</i> 'father -in-law'
Nominative	<i>čin-∅</i>	<i>muzěj-∅</i>	<i>portfél' -∅</i>	<i>studént-∅</i>	<i>gerój-∅</i>	<i>test' -∅</i>
Accusative	<i>čin-∅</i>	<i>muzěj-∅</i>	<i>portfél' -∅</i>	<i>studént-a</i>	<i>gerój-a</i>	<i>téstj-a</i>
Genitive	<i>čin-a</i>	<i>muzěj-a</i> ²⁹	<i>portfélj-a</i>	<i>studént-a</i>	<i>gerój-a</i>	<i>téstj-a</i>

Given the nanosyntactic perspective of syncretism adopted here, this means that the accusative layer of inanimate direct objects must be adjacent to the nominative layer. I call this accusative layer 'Accusative1P'. The KP of an inanimate direct object and its spell-out in Russian are represented in (41).

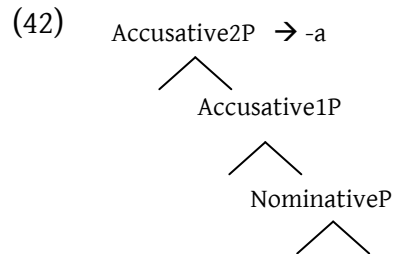
(41) Accusative1P → -∅



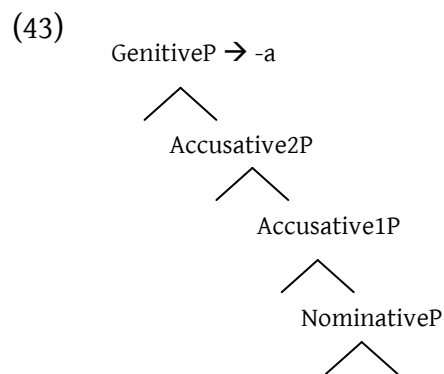
²⁹ As a side note, observe that palatalization occurs in the dative, instrumental and prepositional as well. This is shown in the table below (based on Wade 1992: 54). This indicates that palatalization is not the spell-out of a particular case layer or case constituent and hence justifies the spelling of -j- / [j] and of the soft sign together with the stem rather than with the case ending.

	<i>muzěj</i> 'museum'	<i>gerój</i> 'hero'	<i>portfél'</i> 'briefcase'
Nominative	<i>muzěj-∅</i>	<i>gerój-∅</i>	<i>portfél' -∅</i>
Accusative	<i>muzěj-∅</i>	<i>gerój-a</i>	<i>portfél' -∅</i>
Genitive	<i>muzěj-a</i>	<i>gerój-a</i>	<i>portfélj-a</i>
Dative	<i>muzěj-u</i>	<i>gerój-u</i>	<i>portfélj-u</i>
Instrumental	<i>muzěj[j]-em</i>	<i>gerój[j]-em</i>	<i>portfél[j] -em</i>
Prepositional	<i>o muzěj[j]-e</i>	<i>o gerój[j]-e</i>	<i>o portfél[j]-e</i>

If the first accusative layer is merged in the KP of inanimate direct objects, the second accusative layer, Accusative2P, must be merged on top of Accusative1P in the KP of animate direct objects (42).



This is in accordance with the fact that the accusative-marker of animate direct objects is syncretic with the genitive case-marker, as illustrated in Table 36. Because the genitive and the Accusative2P layers are adjacent, they can be spelled out by the same morpheme.³⁰



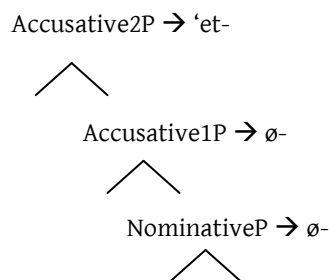
To sum up, I have elaborated on the lower part of Caha’s case sequence by proposing that the accusative layer is actually a direct object zone which is composed of two accusative layers. This structure enabled us to capture the direct object marking patterns of DOM languages, such as Hebrew and Russian as well as those of non-DOM languages, such as Japanese. The structure proposed for direct object markers in all these languages is identical. The differences only depend on how the layers are spelled out, i.e. on how they are “packaged” in the lexicon. This is illustrated by the summary in (44).^{31, 32}

³⁰ I leave it open whether the Accusative2P layer of animate direct objects is the reduplication of a DP-internal animacy layer, as animacy is less often encoded by a distinct morpheme within DPs than definiteness. However, the fact that Bantu languages, for instance, have class-markers which mostly only appear on nouns referring to human beings could be evidence for the projection of an animacy layer within DP.

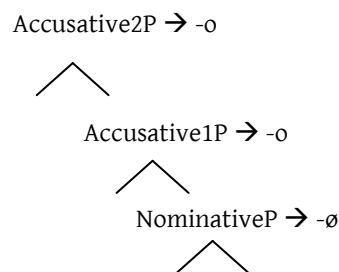
³¹ Syncretism between the differential object marker and the genitive is also found in Ossète (Bossong 1998: 231), in Mordvin (Bossong 1998: 243) and in Proto-Semitic in the plural (Bossong 1991: 145). Most frequently, however,

(44) Spell-out of direct object markers

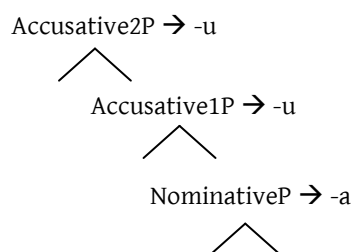
a. in Hebrew



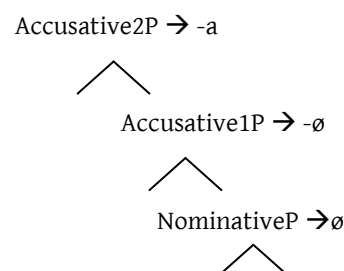
b. in Japanese



c. in Russian, singular nouns, declension II



d. in Russian, masculine singular nouns



As is implicit in these representations, I assume that the substantive content of Accusative2P can vary. That is, this layer is merged regardless of whether the semantic notion at play is definiteness, such as in Hebrew or animacy, such as in Russian.^{33, 34}

differential object markers are syncretic with a dative case morpheme, rather than with a genitive one (Aissen 2003: 446, Bossong 1985: 109-121, 1991: 153-158, 162, 167). This is admittedly an issue for the approach proposed here, which is based on the case sequence argued for in Caha (2009), in which the genitive case layer is situated in between the accusative and the dative case layer. I leave the treatment of this issue for further research.

³² In descriptive grammars and in the literature on Slavic languages, the accusative marking of animate direct objects is called “animate accusative” (e.g. Wade 1992: 548 ; Timberlake 1993: 837; Baerman et al. 2005: 147). In the same way, some typological literature describes differential object markers in definiteness-driven DOM systems as a combination of accusative and definiteness (or specificity) marking (Kornfilt 2009: 82,85 ; Bossong 1998: 239). Also, in Spanish, the DOM marker *a* is sometimes called a ‘prepositional accusative’ (De Swart 2007: 128 and references therein). This reflects the intuition that in both types of DOM-systems, two types of accusative cases must be distinguished.

³³ This recalls Ritter & Wiltschko (2009)’s proposal about the clausal head INFL. They argue that while INFL is a universal category, it may be associated with cross-linguistically variable substantive content. They demonstrate that INFL may not only be associated with Tense but also with Location and Person. However, Ritter & Wiltschko show that these substantive contents are in complementary distribution. For instance, if in a language INFL is associated with Location, it cannot also be associated with Tense or Person. In contrast, in DOM systems, the substantive contents frequently interact, as mentioned above. I thus leave it open for now, whether the variation in substantive content found in DOM systems is similar to that observed for INFL or not.

³⁴ Caha (2009: 118-120) argues on the basis of data from Armenian and Sanskrit that a locative case layer is situated between the genitive and the accusative layer of the structure in (21a). My proposal, according to which

6.4 Hungarian direct object marking with full DPs

I have argued in section 6.2.2 that Hungarian object marking on finite verbs is an instance of definiteness-driven DOM. I have also argued that object marking on finite verbs, i.e. verbal-DOM, is the same phenomenon as DOM instantiated by a preposition or a case marker on direct objects. In the present section, I first show how the theory of DOM presented in section 6.3 accounts for the Hungarian data. Then, I propose a way to capture the fact that Hungarian has verbal rather than adnominal DOM.

6.4.1 Proposal

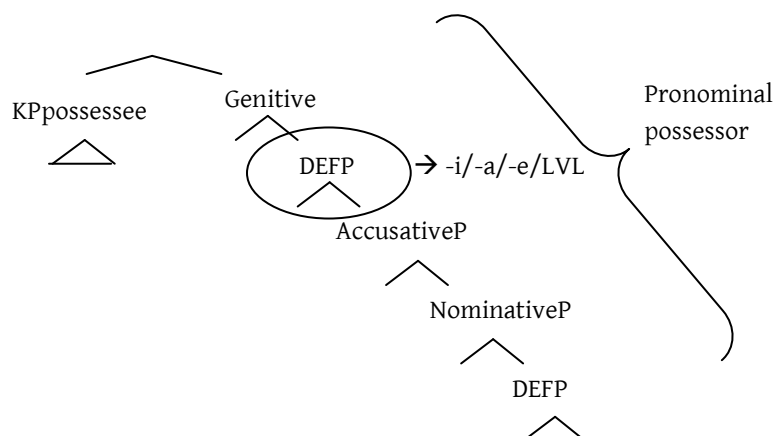
Consider the following two points. First, in section 6.1, I pointed out that the direct object marker on a finite verb with a pronominal direct object is morphologically identical to the one triggered by a full DP direct object. Second, recall from Chapter 4 that the direct object marker occurring on finite verbs with a 3rd person pronominal direct object is the spell-out of a reduplicated definiteness layer which is base-generated between the accusative and the genitive layer of the pronominal possessor. In (45) I reproduce the base-generated structure of the 3rd person singular direct object pronoun *ő*t (see Chapter 4). I circle the reduplicated DEF-layer which is spelled out on the finite verb at the end of the clausal derivation.

the Accusative layer of (21b) should be decomposed into two layers would suggest that the layer Accusative2P is situated right below Caha's locative layer, yielding the sequence in (i).

- (i) [GenitiveP[LocativeP[Accusative2P[Accusative1P[NominativeP [DP]]]]]]

If this is correct, we predict that a differential object marker could be syncretic with the locative morpheme. Another prediction would be that the differential marker could not be syncretic with the genitive morpheme while at the same time being distinct from the locative morpheme, as this would represent an ABA-pattern. For Sanskrit and Classical Armenian, the data I have access to are currently too scarce to determine whether these predictions are borne out. However, the proposal is in accordance with the following data from Czech. Caha (2009: 120) notes that in Czech, the genitive and locative morphemes are syncretic. As the differential object marker has the same form as the genitive morpheme (like in Russian), this leads to a licit AAA-pattern.

(45) Base-generated structure of *őt* ‘him’³⁵

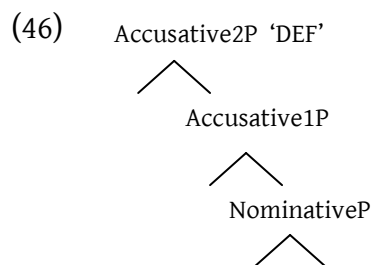


On the base of these two points, I propose the following: the direct object marker which appears on finite verbs with a full DP direct object is the spell-out of a definiteness layer base-generated in the structure of the full direct object DP. Let us first see how the above discussion of DOM provides a straightforward way to account for the base-generation of this definiteness layer within the full direct object DPs. The spell-out of this definiteness layer as a suffix on the verb is addressed in section 6.4.3.

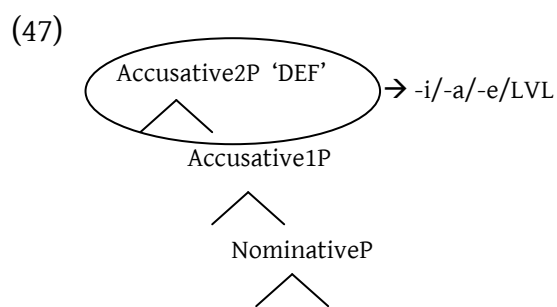
6.4.2 The spell-out of the accusative case zone

Recall from sections 6.3.1 and 6.3.2 that direct object DPs are merged with a KP composed of a nominative layer and a direct object case-zone. In this zone, I have argued, two accusative case layers must be distinguished. The lower one is part of the KP of all direct objects. The higher one is merged when a direct object is high on a semantic scale, such as the animacy or the definiteness hierarchy. This higher layer is a reduplication of a DP-internal layer encoding definiteness (or specificity, animacy, etc). As argued in section 6.2.2, Hungarian has a definiteness-driven DOM system. Thus, in the KP of definite full direct objects DPs, the substantive content of the higher accusative layer is definiteness. The KP of Hungarian definite direct objects is illustrated in (46).

³⁵ In order to make the hierarchical order of layers clear, I do not represent all the steps of Spell-Out driven movement which take place. See Chapter 5 for details.



Just like DEFP in (45), Accusative2P in (46) is the reduplication of a DP-internal definiteness layer on top the first accusative layer of the KP. My proposal is as follows: the object marker which appears on a finite verb with a full definite direct object DP is the spell-out of the Accusative2P layer in (46). As DEFP and Accusative2P both encode definiteness, their spell-out is identical. In other words, the morpheme which appears on finite verbs with a 3rd person pronominal direct object or a full direct object DP is the spell-out of the same layer. This layer is the reduplication of the DP-internal definiteness layer on top of the Accusative1P in the KP of a pronominal possessor or in that of a full direct object DP. We can thus make the structure in (46) more precise by representing the spell-out of the Accusative2P layer.



As represented in (47), Accusative2P is spelled out independently of the rest of the case sequence. The question now arises what is the spell-out of the lower layers, Accusative1P and NominativeP. Recall from section 6.3 that these two layers are merged on all direct objects, both definite and indefinite. We thus predict that the morpheme which spells out this constituent appears on all direct objects in Hungarian as well. This prediction is correct: all direct objects in Hungarian are suffixed by the marker *-Vt*, independently of the position of their referent on the definiteness scale.³⁶ The following examples illustrate this. In (48), the direct object is definite, in (49) it is specific indefinite. In (50), *könyvet* receives a

³⁶ Except direct objects possessed by 1st and 2nd singular possessors, as discussed in section 5.2.2 of Chapter 5. I leave this aside here.

non-specific interpretation. This latter, so called “incorporated” direct object has to precede the finite verb and cannot itself be preceded by an article (Marácz 1991: 147).³⁷

- (48) Felolvas-t-am a level-ek-**et** az apá-m-nak.
 read-PAST-1.SG.DEF the letter-PL-**ACC** the father-1.SG-DAT
 ‘I read the letters to my father.’

Rounds (2001: 96), glosses are mine

- (49) Elénekel-t nek-em egy gyönyörű népdal-**t**.
 sing-PAST DAT-1.SG a beautiful folksong-**ACC**.
 ‘He sang me a beautiful folksong.’

Rounds (2001: 73), glosses are mine

- (50) Mary (*a /*egy) könyv-et olvas (*könyv-et).
 Mary the/ a book-ACC read-3.SG.INDEF book-ACC
 ‘Mary is book-reading.’

adapted from Marácz (1991: 147, his (5a))

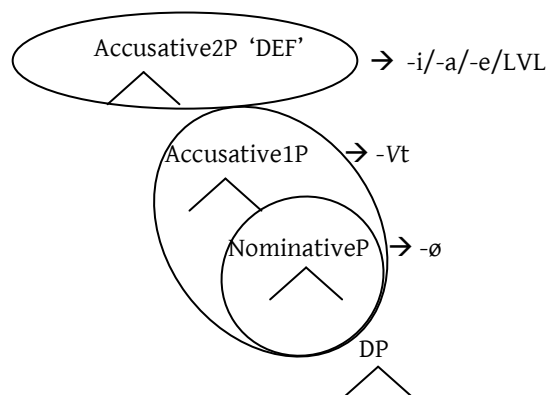
We can now represent the spell-out of the Accusative1P-Nominative constituent by -Vt in (51). In this illustration, I also add the spell-out of the nominative layer. As nominative DPs do not display any overt case morpheme, I assume that the spell-out of this layer is - \emptyset .³⁸

³⁷ The generic, indefinite interpretation of this direct object is replaced by a specific one if a determiner is present (Rounds 2001: 258, fn 1).

(i) Mary egy könyv-et olvas- \emptyset
 Mary a book-ACC read-3.SG.INDEF
 ‘Mary is reading a (specific) book.’

³⁸ As mentioned above, the case of direct objects which are low on the semantic scale is cross-linguistically often realized by a null morpheme while that of direct objects which are high on the scale is an overt morpheme. The question thus arises why there are two overt markers in Hungarian. My explanation is as follows. Bossong (1991: 152-153) observes that direct object marking sometimes becomes non-differential over time because the differential marker spreads to all direct objects or gets phonologically eroded (see Bossong (1998: 237, 243, 245) for examples). In this case, a new DOM system usually arises. This seems to be exactly what has happened in Hungarian (Bossong 1998: 242, 245). As discussed in Károly (1972: 98-99), the marker -t used to only be suffixed to definite direct objects but it gradually spread to all direct objects. Thus, nowadays, even the objects which are low on the definiteness scale are overtly marked. The spell-out of the Accusative2P layer by a verbal morpheme thus represents a reinstatement of the DOM system.

(51)



To summarize, this figure represents the fact that nominative DPs are suffixed by a null case morpheme, that all direct objects are suffixed by the marker *-Vt* and that definite direct objects co-occur with an additional morpheme, namely one of the allomorphs *-i/-a/-e/LVL*.

Note that, if nothing more were said, (51) would lead to the prediction that not only the accusative marker *-Vt* but also the morpheme spelling out the Accusative2P layer is spelled out on the direct object. As discussed in detail in Chapter 4, this is however not the case: the Accusative2P marker appears on the finite verb. In the following section, I propose that the Accusative2P layer is attracted to the finite verb during the clausal derivation.

6.4.3 Definiteness marking on the finite verb

In this section, I sketch a partial clausal derivation in which the nanosyntactic analysis of direct object marking developed in this chapter can be framed.³⁹ In section 6.4.3.1, I present the steps of the clausal derivation. In section 6.4.3.2, I suggest that the movement of Accusative2P is similar to that of direct objects undergoing scrambling.

6.4.3.1 Clausal derivation

The order of the morphemes composing Hungarian finite verbs was presented in section 3.2 of Chapter 3. Let us briefly review the facts by taking a look at (52). The verbal stem, i.e. the verbal root together with potential derivational morphemes, is directly followed by a tense or mood marker (henceforth ‘T/M marker’). Then, if the verb takes a direct object

³⁹ A precise identification of the base-generated and landing positions of the elements involved in direct object marking would require an in depth study of Hungarian word order, a notoriously complex matter which lies beyond the scope of this work. Some key references on Hungarian word order include: Kenesei (1986), É. Kiss (2002), Marác (1991) and Puskás (2000).

whose referent is definite, a direct object marker is suffixed. This morpheme is followed by markers which encode the person and number of the subject.

- (52) a. *kér-(het)-t-é-t-ek*
 ask.for(-POTENTIAL)-PAST-DEF-2-PL
 ‘You_{PL} (may) ask.for it.’
 b. *vár-j-á-t-ok*
 wait-SUBJ-DEF-2-PL
 ‘You_{PL} wait.for_{SUBJ} him/it.’

The important fact to note here is that the direct object morpheme appears to the right of the T/M marker. This suggests that the base-generated order is DP_{DO}-VP. The reason is the following one. In Nanosyntax, all movements are phrasal. As we have seen in section 2.2.4 of Chapter 2, one of the consequences of this is that if case layers are stranded within the VP, they will be carried along if the VP raises. This in turns predicts that case layers that are stranded within the VP will be spelled out by a morpheme on the verbal stem. For instance, in (53), the order of the morphemes is PL-TENSE-VERBAL STEM-APPL-ASPECT. The case layers which are spelled out by the applicative morpheme *ir* are adjacent to the verbal stem because they were carried along by the latter during VP-movement to higher functional projections (Caha 2009: 161). Morphemes which spell out higher layers, such as Tense and Aspect, thus cannot intervene between these two morphemes.

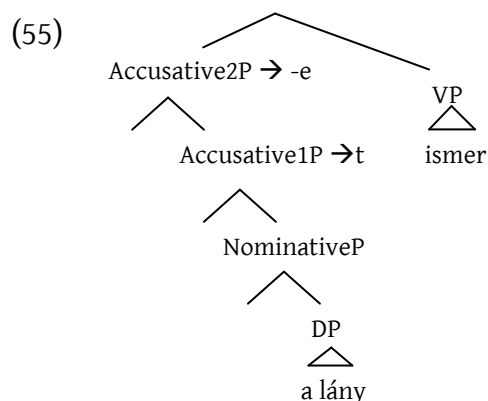
- (53) *asilikali a-na-bay-ir-a mikondo njovu.*
 soldiers PL-PAST-stab-‘WITH’-ASP spears elephants
 ‘The soldiers stabbed the elephants with spears.’
 Chichewa ; Caha (2009: 160), from Baker (1988)

Differently from the applicative morpheme in Chichewa, the direct object marker in Hungarian is not adjacent to the verbal stem. The two are separated by a T/M morpheme. The layer spelled out by the direct object marker thus cannot have been stranded inside the VP, contrary to the layers spelled out by the applicative morpheme in (53). The order of the morphemes attached to the Hungarian verbal stem thus suggests that the VP which raises to tense and/or mood projections contains nothing but the layers which the verbal stem itself spells out.⁴⁰ This explains why I take direct objects to be base-generated outside

⁴⁰ Observe that an alternative analysis in which the direct object is merged inside the VP and raises out of it prior to VP movement is theoretically possible but lacks morphological support. In Nanosyntax, all movement operations involving KP* strand (at least) one layer of case. Thus, if the direct object KP* originated inside the VP

VP. As an illustration, the base-generated hierarchical order of the verb and of the definite direct object in (54) is as depicted in (55).

- (54) János ismer-t-e a lány-t.
 János know-PAST-DEF the girl-ACC
 'János knew the girl.'



I now describe the steps of the clausal derivation which lead to the marking by *-t* of all direct objects and to the suffixation of the finite verb by the direct object marker.

I argued in section 6.4.2 that the direct object marker, *-e* in (54), is the spell-out of the Accusative2P layer in the KP of definite direct objects. In order for this layer to be spelled out independently from the other case layers of the direct object KP, it has to be peeled. I thus assume that the Accusative1P layer raises to a S(ector)-k position (cf. section 2.2.4 of Chapter 2) stranding the Accusative2P layer. Following É. Kiss (2002: 64) and Surányi (2005: 568 and references therein), I assume that the verb raises to the IP domain. From the perspective adopted here, this means that the VP raises over a T/M projection. These steps are illustrated in (56).⁴¹

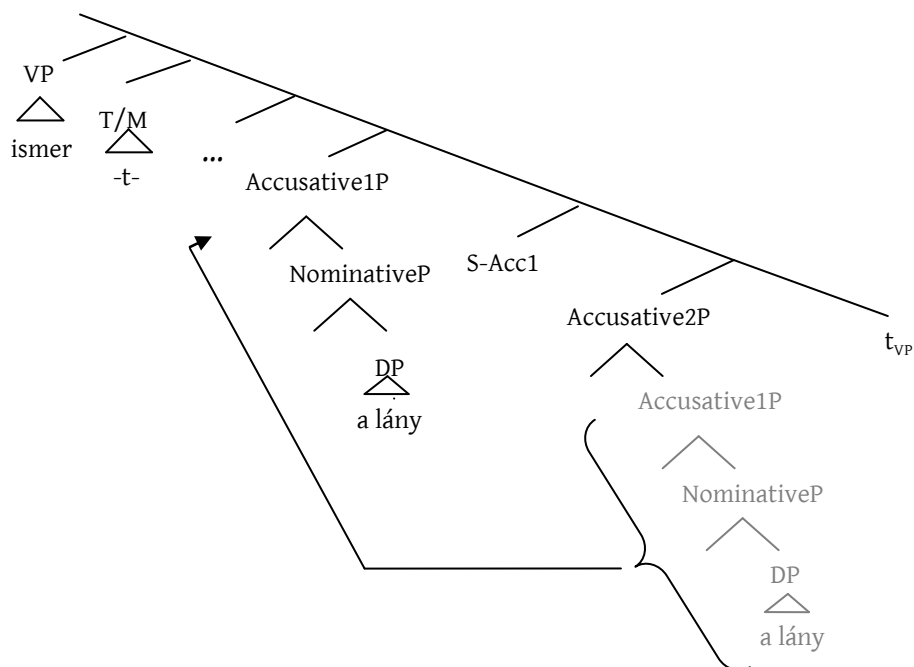
and subsequently raised out of it, it would leave a case layer stranded inside the VP. This layer would have to be spelled out by a morpheme on the verbal stem. There is however no such morpheme. For instance, the verbal stem *vár* 'wait for', has the same form, regardless of whether it takes a 3rd person direct object or not.

- | | |
|--|------------------------------|
| (i) a. vár -t | b. vár -t-a |
| wait.for-PAST.3.SG.INDEF | wait.for-PAST-DEF |
| 'He was waiting.' / 'He was waiting for me / you _{SG} ' | 'He was waiting for him/it.' |

Another alternative analysis is to assume that Hungarian direct objects are merged inside the VP but that the size of the VP which raises to T/M in Hungarian is different from that of the VP which raises in Chichewa. More precisely, in Hungarian, only part of the extended VP would move up while the whole VP would raise in Chichewa. I leave the question open.

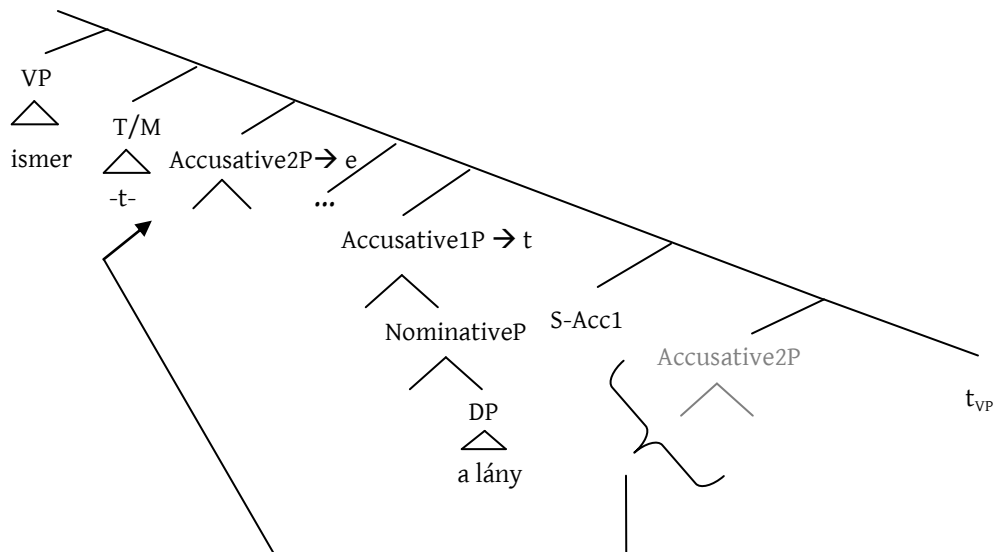
⁴¹ The representation of the T/M projection and its spell-out by *-t* in (56) are solely for illustrative purposes. Similarly to the claim that VP should be decomposed into several projections (Ramchand 2008), so are T/M morphemes probably the spell-out of multiple functional layers (Starke 2011).

(56)



Subsequently, the peeled Accusative2P layer is attracted to a position just below the T/M projection (57). I propose in section 6.4.3.2 that this attraction is similar to the movement of scrambling objects.

(57)



As a result of this derivation, the Accusative2P layer is spelled out as a suffix on the T/M morpheme. The direct object DP *a lány* raises to the Accusative1P layer and the constituent [Accusative1P [NomP]] is spelled-out by the accusative suffix -Vt.

In the following section, I propose that the movement of the stranded Accusative2P layer is similar to that of scrambling objects in Germanic languages.

6.4.3.2 Attraction of the Accusative2P layer: D-linking

Recall from above, that not only definite direct objects but also some indefinite ones co-occur with the definite conjugation. Following the analysis developed in this chapter, an Accusative2P layer is thus merged in the KP of these direct objects. This Accusative2P is then stranded and attracted to a position near the finite verb. Scrambling of direct objects in Germanic also targets definite DPs as well as a subset of indefinites ones. An illustration of Germanic scrambling is provided in (58). This Dutch example illustrates that direct objects which precede the adverb *gisteren* ‘yesterday’ refer to a specific entity. Zwart (1993: 315) notes that *een meisje* in (58) refers to specific girl the speaker has in mind. In (58a), however, the interpretation of the direct object which appears below the adverb is ambiguous. *Een meisje* may refer to a certain girl or to any girl from Jan’s class. Diesing (1997: 376-377, 390-395) shows that a similar distinction between scrambled and non scrambled indefinite direct objects holds in German and in Yiddish.

- (58) a. ...dat Jan gisteren een meisje uit zijn klas gekust heeft.
 that John yesterday a girl from his class kissed has
 ‘...that John kissed a girl from his class yesterday.’
 b. ...dat Jan een meisje uit zijn klas gisteren gekust heeft.
 that John a girl from his class yesterday kissed has
 ‘...that John kissed a girl from his class yesterday.’

Zwart (1993: 315, his (25a,b))

On this basis, I propose that the movement of Accusative2P is triggered by the same process which causes objects in Germanic to scramble. The idea that differential object marking and scrambling occur under similar semantic conditions and for similar reasons has a few antecedents in the literature.⁴² Delfitto & Corver (1998: 289-290), Diesing (1992:

⁴²Other phenomena have been shown to be related to D-linking: object shift (Diesing 1997), clitic movement (Uriagereka 1995), *wh*-movement (Pesetsky 1987; Starke 2001: 22-28; Boeckx & Grohmann 2004), extraction out of *wh*-islands (Starke 2001: 10-22), clitic doubling (Alexiadou & Anagnostopoulou 1997: 143; Delfitto 1995: 509-512), French past participle agreement with *wh*-direct objects (Obenauer 1994, see section 7.2.1 in Chapter 7). See Corver & Delfitto (1998) for discussion.

85-88) and De Swart (2007: 153) are references in point. For instance, Delfitto & Corver (1998: 290) write:

“It is quite significant that the DP-readings which undergo morphosyntactic encoding crosslinguistically tend to overlap with the cluster of interpretations which has been shown to correlate with scrambling in Germanic.”

Under which precise conditions scrambling occur is a matter of debate and is probably to a certain extent language specific. Referentiality, presuppositionality, familiarity, specificity and definiteness of the raised direct object are often invoked (see Thráinsson 2001: 151, 188; Diesing 1992, 1997; Delfitto & Corver 1998). However, there seems to be a consensus in the literature that it corresponds to the broad notion of D-linking (Delfitto & Corver 1998: 281). The reason often invoked for the link between scrambling and D-linking is grounded in Diesing (1992)’s Mapping Hypothesis (see also Diesing 1997 and Diesing & Jelinek 1995). For different perspectives see Delfitto & Corver 1998 and Zubizarreta 1994). According to Diesing (1992), when the existence of an entity is presupposed (and thus, a fortiori when an entity is D-linked), the noun referring to that entity has to undergo Quantifier Raising in order to raise out of the nuclear scope of the clause. When the existence of an entity is not presupposed, the noun stays within the nuclear scope and is bound by an existential quantifier. In German and Dutch, scrambling is thus said to occur because of the presuppositional interpretation of a noun. Nouns which do not scramble are preferably interpreted as non-presuppositional.

Recall now that the indefinites which co-occur with the definite conjugation in Hungarian refer to entities that are a subset of a definite set. In that sense, they are D-linked, similarly to scrambled direct objects. I therefore suggest that the movement of the Accusative2P layer in Hungarian is related to D-linking.

6.4.3.3 Intermediate summary

The main goal of this section was to account for the presence of a direct object marker on finite verbs with a definite full direct object DP. I have argued that this direct object marker is the spell-out of a definiteness layer externally merged in the KP of full direct objects DPs. I have further provided an understanding of the fact that this morpheme appears on the finite verb instead of being spelled out on the direct object itself. I have proposed that the definiteness layer is stranded by the direct object and subsequently attracted to a position near the finite verb for D-linking purposes, similarly to scrambled direct objects. In the next section, I extend the analysis to other types of direct objects

which also co-occur with the definite conjugation: possessive and reflexive pronouns and direct object clauses.

6.4.4 Beyond regular full DPs

So far, I have provided an account of the occurrence of a direct object marker on the finite verb when the direct object is a 3rd person personal pronoun and when it is a regular full DP. In the remainder of this section, I address the occurrence of the definite conjugation with possessive pronouns, reflexive pronouns and direct object complement clauses. The analysis will be essentially the same as above: the origin of the direct object marker is an Accusative2P (=DEFP) layer projected in the KP of these direct objects.

6.4.4.1 Possessive and reflexive “pronouns”

I have argued in Chapter 4, that possessive and reflexive pronouns share properties with direct object DPs. I argued on this basis that their co-occurrence with the definite conjugation, as illustrated in (59) and (60), is therefore expected.

(59) János akar-**ja** / *- \emptyset az övét.

János wants-DEF / 3.SG.INDEF his

‘János want his.’

(60) (Ő) lát-**ja** / *- \emptyset magá-t a tükör-ben.

He can.see-DEF / 3.SG.INDEF himself-ACC the mirror-in

‘He can see himself in the mirror.’

The occurrence of the definite conjugation with these pronouns can now be formalized: just like full definite DPs, they are embedded under an Accusative2P constituent. This Accusative2P is stranded and spelled out on the finite verb at the end of the clausal derivation.

In the next section, I discuss the use of the definite conjugation with direct object complement clauses.

6.4.4.2 Direct object clauses

As discussed in Chapter 3, direct object clauses all co-occur with the definite conjugation. The sentences in (61) illustrate that finite direct object clauses (henceforth ‘DOC’) trigger

the presence of a direct object marker on the finite verb. The complementizer is *hogy* ‘that’, ‘how’.⁴³

(61) a. János remél-i, hogy Mari Szeged-en tartózkodik.

János hope-DEF that Mari Szeged-SUPERESS reside

‘János hopes that Mari resides in Szeged.’

b. John sajnál-ja / tud-ja / állít-ja / hisz-i, hogy telefonál-t Mari-nak.

John regret-DEF / know-DEF / claim-DEF / believe-DEF that phone-PAST Mari-DAT

‘John regrets / knows / claims / believes that he called Mari.’

c. Elmagyaráz-t-a, hogy kellett betör-ni a ház-ba.

explain-PAST-DEF how had.to break-INF the house-ILL

‘He explained at length how he had to break into the house.’

Rounds (2001: 73, glosses are mine)

Following Kenesei (1994), Bartos (2001: 320) and É. Kiss (2002: 231, 233) argue that matrix verbs which take a clausal direct object do not agree with the DOC but with an expletive pronoun associated with the DOC. Their view is supported by the fact that this pronoun can be overt, as shown in (62).

(62) Tud-om / *tud-ok (az-t), hogy Péter okos.⁴⁴

know-1.SG.DEF / *know-1.SG.INDEF it-ACC that Péter smart

‘I know that Peter is smart.’

Bartos (2001: 320, his (17))

When the pronoun is absent, they assume that it has undergone pro-drop. That is, Bartos and É. Kiss assume that the structure of (62) is the same, whether the accusative pronoun is

⁴³ Other types of finite direct object clauses also co-occur with a matrix verb in the definite conjugation. An example of an *if*-clause is given in (i). I will not discuss these clauses here.

(i) Nagyon szeret-n-ém, ha sikerül-ne.

much like-COND-1.SG.DEF if succeed-COND.3.SG.INDEF

‘I would really like it if he succeeded.’

Coppock & Wechsler (2012: 6, their (19))

⁴⁴ This pronoun has the same form as the accusative marked 3rd person pronoun used to refer to inanimates (i) (Bartos 2001: 320), which is itself formally identical to the accusative form of the demonstrative pronoun ‘that’ (Rounds 2001: 131).

(i) Szeret-em (az-t).

love-1.SG.DEF it-ACC/that-ACC

‘I love it/that.’

overt or not. If they are right in claiming that DOCs are always associated with the pronoun *azt*, the analysis of direct object marking I put forth above for full DPs extends straightforwardly to finite verbs with a direct object DOC. In particular, the structure of the pronoun *az* must be identical to that of a full DP with a null noun. This is suggested by the fact that inflectional markers, such as case and plural morphemes, are suffixed to *az* in the same way as they are on full DPs. This is shown in (63) and (64).

- (63) a. *az-t* b. *az asztal-t* c. *az-ok-at* d. *az asztal-ok-at*
 it/that-ACC the table-ACC it/that-PL-ACC the table-PL-ACC
 it/that_{ACC} ‘the table_{ACC}’ ‘them/those_{ACC}’ ‘the tables_{ACC}’

- (64) a. *az-on* b. *az asztal-on*
 it/that-SUPERESS the table-SUPERESS
 ‘on it/that’ ‘on the table’

 c. *az-ok-on* d. *a lány-ok-on*
 it/that-PL-SUPERESS the girl-PL-SUPERESS
 ‘on them/those’ ‘on the girls’

Thus, in terms of my analysis, the source of the direct object marker in (61) and (62) is the Accusative2P layer merged in the KP of the (dropped) pronoun *az*.

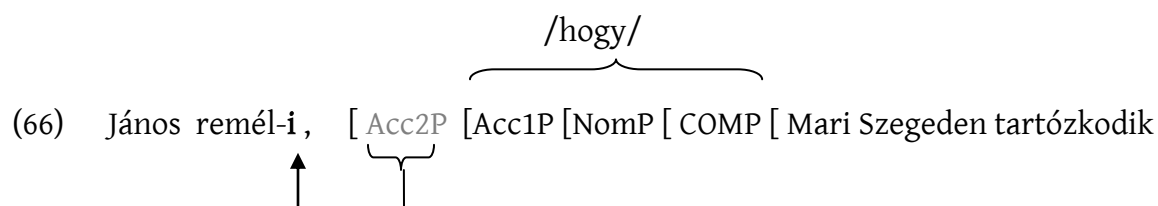
However, Coppock & Wechsler (2012: 26) point out a problem with Bartos and É. Kiss’ claim that a matrix finite verb always agrees with a (c)overt accusative pronoun associated with the DOC. They show that the presence or absence of the associated pronoun is not simply a matter of object drop. Rather, it indicates a different clause structure, as the extraction facts (65) show. In the a-example, the DOC is not associated with an accusative pronoun in the matrix clause. Extraction of the adverb *holnap* ‘tomorrow’ out of the embedded clause is possible. In the b-example, on the other hand, the presence of an associated pronoun makes the extraction of *holnap* impossible.

- (65) a. *János holnap mond-t-a* [*hogy érkez-ik*].
 John.NOM tomorrow say-PAST-3.SG.DEF that arrive-3.SG.INDEF
 ‘It is tomorrow that John said that he is arriving.’
 b. **János holnap mond-t-a az-t* [*hogy érkez-ik*].
 John.NOM tomorrow say-PAST-3.SG.DEF it-ACC that arrive-3.SG.INDEF
 ‘It is tomorrow that John said it, that he is arriving.’

Coppock & Wechsler (2012: 26, their (90))

If the structure of (65b) was identical to that of (65a), as Bartos and É. Kiss argue, this fact would remain unexplained. Coppock & Wechsler thus propose an alternative to Bartos and É. Kiss' analysis. First, they provide an understanding of the extraction fact presented in (65) based on Huang (1982)'s Condition on Extraction Domains. Huang showed that while extraction out of complements generally results in grammatical sentences, extraction out of adjuncts (and subjects) yields degraded sentences. Thus, according to Coppock & Wechsler, the impossibility for *holnap* 'tomorrow' to leave the DOC in (65) shows that this clause is adjoined to the main clause instead of being in the complement of the verb. As extraction of *holnap* is possible in (65a), where the pronoun is absent, the DOC must occupy the complement position of the matrix verb. This leads Coppock & Wechsler to conclude, contra Bartos and É. Kiss, that in (65a), the matrix verb agrees with the DOC and not with a dropped accusative pronoun.⁴⁵ Thus, while the analysis of the present chapter naturally accounts for the use of the definite conjugation with DOCs under Bartos and É. Kiss' pro-drop analysis, Coppock & Wechsler's objection leads us to reconsider that account.

The analysis of direct object marking put forth here is that the direct object marker on the finite verb is the spell-out of an Accusative2P layer merged in the KP of the verb's direct object. As a consequence, the fact that DOCs trigger the definite conjugation must be interpreted as follows: subordinate complement clauses, just like definite direct object DPs, are embedded under a KP and, more precisely, under an Accusative2P constituent. The Accusative2P layer is then peeled and attracted to a projection near the finite verb. The analysis is sketched in (66), using the sentence in (61) as an example.⁴⁶



The hypothesis that finite complement clauses are embedded under a KP is not self-evident. For instance, Stowell (1981: 147-166) argues that in English, finite complement clauses cannot be case-marked.⁴⁷ However, this is clearly not a universal fact. Franco (2012:

⁴⁵ Coppock & Wechsler (2012) assume that the definite conjugation arises on finite verbs as a consequence of a feature checking mechanism taking place between verbs and those direct objects that are specified as [+DEF] in the lexicon.

⁴⁶ Given that the constituent [Accusative1P[NominativeP]] is not spelled out by the accusative marker -t, I assume that these layers are spelled out by *hogy*. That is, *hogy* would not only be the spell-out of the complementizer layer CP but also of the first two case layers.

⁴⁷ However, Emonds (1985) argues that English complementizers are a subcategory of prepositions. If prepositions spell out case layers, as argued in Caha (2009), Emonds' proposal would suggest that CPs are case-marked.

86) shows that there are languages in which subordinate clauses or complementizers bear an overt accusative case marker. He argues on this basis that complement clauses are embedded under KPs.⁴⁸ In the following sentences, the DOCs display an overt accusative case marker. In Cuzco (67), the suffix *-ta* on the complementizer *chay* is identical to the accusative marker on the noun *platanu* ‘banana’. A similar pattern can be observed in Khoekhoe (68). In the b-example, we can see that *-à* also marks case on nouns.⁴⁹ In Japanese, the accusative morpheme found on nouns, such as *toori-o* ‘street_{ACC}’ in (69), is also used to mark DOCs.⁵⁰

(67) mariacha muna-n xosecha platanu-ta rantì-nqa **chay-ta**.
 Maria want-PRES.3.SG Jose banana-ACC buy-FUT.3.SG **COMP-ACC**
 ‘Maria wants Jose to buy banana.’
 Cuzco Dialect - Quechua ; Franco (2012: 86, his (7) ; from Lefebvre & Muysken (1982))

(68) a. //’íip ke ‘am’a-se kèrè =/om [/’aé//amsà xuú-kxm
 he DECL true-ADV REM.PST believe Windhoek from-1.DU
 /xií hàà **!xáís-à**
 come PFV **COMP-ACC**
 ‘He really believed that we had come from Windhoek.’
 Khoekhoe ; Franco (2012: 89, his (16) ; from Hagman (1973))
 b. //’íip ke ‘áop-à kè ≠aí .
 he DECL man-ACC PAST call
 ‘He called the man.’

Khoekhoe; Hagman (1973: 118), glosses are mine

⁴⁸ Franco not only studies the complementizer area of direct object clauses but also that of relative clauses and adverbial clauses. Adopting a nanosyntactic perspective, he argues for a fine-grained structure of the complementizer area of these different types of subordinate clauses. He proposes that the embedding KP is separated from the complementizers by other structural layers (i). I gloss over this here and assume that these layers are spelled out by *hogy* in Hungarian.

(i) [_{K[ASE]}... [_{DEM}... [_{NUM}... [_λ ... [_C ...]]]]] Franco (2012: 90, his (18))

⁴⁹ The suffix *-à* has many more uses which extend beyond case marking, see Hagman (1973: 111-112) for discussion.

⁵⁰ Other languages for which DOCs appear to be case marked include Palauan (Georgopoulos 1991: 84-95), Diegueño (Gorbet 1979: 253), Korean (Jeong 2006), Persian (Joseph 1975: 143) and Chinese (Li 1990, Tsai 1995). See also Aikhenvald (2008)’s typological study on the use of case markers as clause-linkers or aspect and mood markers in subclauses .

(69) John-wa Mary-ga toori-o watat-ta koto-o amoidasi-ta
 John-TOP Mary-NOM street-ACC cross-PAST COMP-ACC remember-PAST
 ‘John remembered that Mary had crossed the street.’

Japanese ; Horie (2001: 987, his (38))

Finally, consider Turkish. Examples (70) and (71) show that DOCs in Turkish are marked in the same way as definite and specific indefinite direct objects. In (70a), the case marker on the DOC is -ü. As can be seen by comparing with (70b), this marker is identical to the case suffix on the definite direct object köyü ‘the village_{ACC}’. In (70b), the allomorph -ı is used to case mark the DOC.⁵¹ The comparison with example (71), repeated from section 6.2.1, shows that -ı also serves as a differential markers on direct objects. This shows that in Turkish, DOCs are considered high on the definiteness scale and thus eligible for differential object marking.

(70) a. (Ben) [Ahmed-in öl-düg-ün]-ü duy-du-m.
 I Ahmet-GEN die-NOM.3.SG-ACC hear-PAST.1.SG
 ‘I heard that Ahmet died.’

Turkish ; Franco (2012: 86, his (8) ; from Kornfilt (1997))

b. [köy-ü haydut bas-tığ-ın]-ı duy-du-m
 village-ACC robber raid-FN-3.SG-ACC hear-PST-1.SG
 ‘I heard that robbers raided the village.’

Turkish ; Kornfilt (2009: 84, her (3b))

(71) (Ben) kitab-ı oku-du-m.
 I book-DOM read-PST-1.SG
 ‘I read the book.’

Turkish, Kornfilt (2008: 81, her (1))

These data from Turkish provide support for the analysis of the fact that DOCs trigger the use of the definite conjugation in Hungarian (cf. (66)). I argued in section 6.3 that differential object markers spell out an Accusative2P constituent, i.e. a KP which contains not one but two accusative case layers. In sections 6.2.2 and 6.4.2, I argued that the direct object-marker on Hungarian finite verbs is also a differential object marker and that it spells out the Accusative2P layer. The data in the present section show that Turkish DOCs

⁵¹ Note that vowel harmony is operative in Turkish (Göksel & Kerslake 2005: 21-25). There are three allomorphs for the differential object marker: -ı, -yu and -ü (i).

(i) saray_ı ‘the palace (ACC)’ ; su_{yu} ‘the water (ACC)’ ; küçüğü ‘the small one (ACC)’

Göksel & Kerslake (2005: 67)

are case-marked by a differential object marker, just like regular definite DPs. If in Hungarian, like in Turkish, DOCs are case marked like regular definite direct object, the fact that they trigger the use of the definite conjugation is expected. Just like regular definite direct objects, DOCs are embedded under an Accusative2P constituent. The Accusative2P layer is stranded and attracted to the finite verb where it gets spelled out.⁵² The only difference between Hungarian and Turkish is that in the latter language, the Accusative2P layer is not split off from the rest of the KP. The whole Accusative2P constituent is thus spelled out as a suffix on the DOC in Turkish.

To sum up, I agree with Coppock & Wechsler that when the DOC is not associated with an accusative pronoun in the main clause, the target of the definite conjugation of the matrix verb is the DOC itself and not a dropped pronominal direct object. To account for this fact, Coppock & Wechsler (2012: 27-28) assume that *hogy*-CPs are endowed with a [+DEF] feature in the lexicon, which, they claim, allows them to trigger definiteness agreement on the finite verb. In this section, I have argued that the source of the definite conjugation with DOCs is a case layer which is part of the KP embedding the DOC. This was supported by morphological evidence from other languages, especially from Turkish.⁵³

I have argued that the source of the direct object marker on finite verbs is identical regardless of whether the direct object is a full definite DP or a 3rd person pronoun. In both

⁵² Turkish DOCs are usually considered to be (partially) nominalized clauses (see for instance Kornfilt 2009: 83, 95-97, 99). In examples (70a,b), the morphemes *düğ* and *tiğ* are nominalizers (also called “subordinators” in Göksel & Kerslake 2005: 70, 84, a.o). The parallel between Turkish and Hungarian DOCs advocated here would thus suggest that Hungarian DOCs contain a null equivalent of the Turkish nominalizer. While I do not exclude the possibility that an empty NP is merged in between the KP and the DOC in Hungarian, the absence of any morphological evidence for this analysis leads me to assume that the KP takes the *hogy*-CP directly in its complement, as illustrated in (66). Note that Aikhenvald (2008: 579) and Franco (2012: 87-88) argue that case marking of subordinate clauses does not necessarily imply nominalization. Finally, the possibility for a KP to take a CP complement might be a variant of Lipták’s (1998) proposal (reported in É. Kiss 2002: 234-235) that the C heads of clausal arguments are endowed with case-features (as well as other features that an equivalent nominal complement could have).

⁵³ Contrary to Coppock (2013) who proposes that all DOCs are referential, Haegeman & Ürögdi (2010: 136-144) claim that the DOC of certain non-factive verbs such as *say* and *claim* may be non-referential. If Haegeman & Ürögdi are right, the question arises why the DOCs of such verbs always co-occur with the definite conjugation in Hungarian as well as with the differential object marker in Turkish, as shown in (i).

(i) a. Mary John -un piyango-yu kazan-dığ-in-*(1) iddia et-ti.
 Mary John-GEN lottery-ACC win-NOM-3s-ACC claim make-past.3s
 ‘Mary claimed that John won the lottery.’
 b. Mary komşu-nun o-nu ara-dığ-in-*(1) söyle-di.
 Mary neighbor-GEN s/he-ACC call-NOM-3s-ACC say-past.3s
 ‘Mary said that the neighbour called her.’

Metin Bagriacik (p.c)

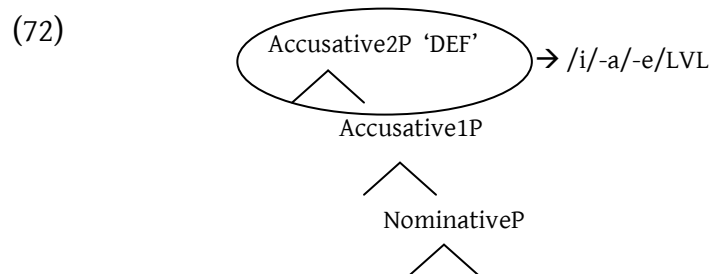
I leave the question open here.

cases, the morpheme spelled out on the finite verb is the spell-out of a reduplicated definiteness layer in a KP. In the next section, I discuss a difference between the KPs which are merged on top of full direct object DPs and those which are merged on top of the pronominal possessor of direct object pronouns. In the former, only the definiteness layer is reduplicated. In the later, as we have seen in Chapter 5, the phi-features of the referent are also reduplicated.

6.5 Parameterized reduplication in KPs

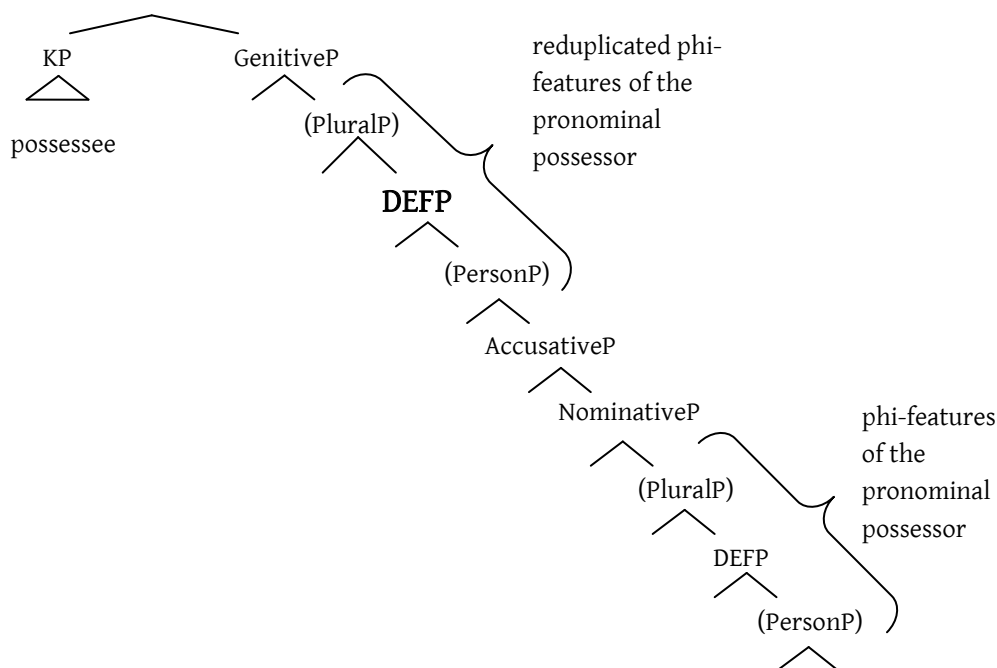
6.5.1 Pronominal vs full DP possessors in Hungarian

I have argued in the preceding sections that the source of the direct object marker on the finite verb is the Accusative2P layer, which is base-generated in the KP of full direct object DPs. The structure of this KP is repeated in (72).



As noted in section 6.4.1, this proposal is in line with the one made in Chapter 5 about the source of the direct object marker on finite verbs with a 3rd person direct object pronoun. This marker is the spell-out of a definiteness layer reduplicated in between the accusative and genitive layers of the possessor KP. I repeat the base-generated structure of non-nominative pronouns in (73). The boldfaced layer is the one which, after the derivation of the pronoun, subextracts and raises near the finite verb.

(73) Base-generated structure of non-nominative personal pronouns
(repeated from Chapter 5)



In other words, the Accusative2P layer in (72) and the DEF-layer in (73) are one and the same piece of structure. Regardless of whether the direct object is a full DP or a personal pronoun, the source of the direct object marker on the finite verb is a structural layer which is externally merged on top of the first accusative layer of a KP.

That being said, an important difference remains between the KP of a full direct object DP (72) and that of a pronominal possessor (73), which I now discuss: in the KP of a pronominal possessor, the phi-features of the possessor are reduplicated on top of the first accusative layer. In contrast, the phi-features of the full direct object DP are not reduplicated.

As argued in Chapter 5 and represented in (73), the phi-features of a pronominal possessor are encoded a second time once the first accusative layer has been merged. This enabled me to capture the fact that the phi-features of a non-nominative pronoun are spelled out twice. This is repeated in (74), with simplified glosses and decompositions of the pronominal forms.

(74) a. en-g-em

1.DEF.SG-g-1.DEF.SG

‘me_{ACC}’

c. mi-n-k-et

1.DEF.PL-1.DEF-PL-ACC

‘we_{ACC}’

b. ō-je-k-et

DEF.PL-DEF-PL-ACC

‘them_{ACC}’

d. (ti)-nek-t-ek

2.DEF.PL-DAT-2.DEF-PL

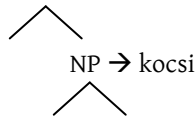
‘to/for them’

Given that they are third person, full DPs do not project a person layer. Thus, no person layer can be reduplicated either. However, when full DPs refer to a plural entity, they project a plural layer, which is spelled out by -Vk. This can be represented as follows:

(75) kocsi-k

car-PL

(76) PluralP → -Vk



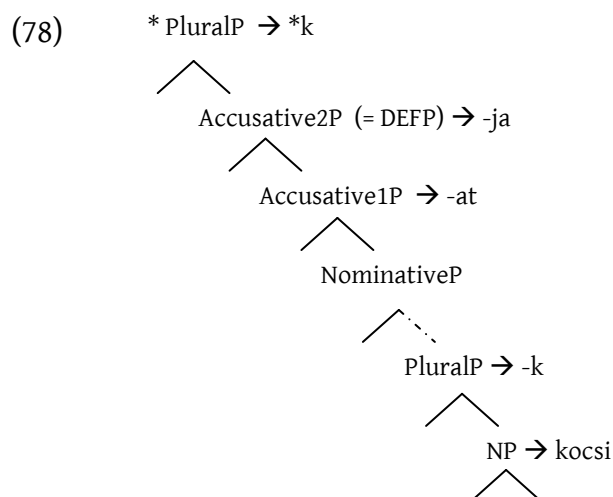
Contrary to what happens in the KP of the pronominal possessor in (73), this plural feature is not encoded a second time in the KP of the full direct object DP illustrated in (72). Indeed, as shown in (77), the plurality of a full direct object DP is only marked once. To facilitate the comparison of the KP of the possessor pronoun in (73) and that of the direct object DP in (77), I provide the structure in (78). It illustrates by the use of an asterisk the absence of a second plural layer above the first accusative layer of the full DP. In this structure, I also indicate the spell-out of the layers which compose the definite direct object of (77), *kocsikat* ‘the cars_{ACC}’.⁵⁴

(77) (Ő) lát-ja a kocsi-k-at / *kocsi-k-at-ok.

(He) see-DEF the car-PL-ACC car-PL-ACC-PL

‘He sees the cars.’

⁵⁴ The dashed branch signals that other functional layers, such as those which are spelled out by the definite determiner *a* are present but are not represented.



If the plural layer of a full direct object DP is not reduplicated in the KP, we predict that when other case layers are merged on top of the direct object zone, i.e. above Accusative2P in (78), the plurality of a referent is not instantiated a second time either. For instance, if a plural full DP is embedded under dative KP, the plural feature is not reduplicated in the dative KP. This is shown in (79).

- (79) (Én) adok a lány-ok-nak(*-ok) egy level-et.
 I give the girl-PL-DAT a letter-ACC
 ‘I give a letter to the girls.’

The relevance of this point becomes clear when we consider full possessor DPs. The idea that the plural feature is reduplicated only when the complement of a KP is a pronoun, such as in (73), enables us to shed some light on the anti-agreement fact presented in section 5.2.1 and 5.2.2 of Chapter 5. The data are repeated below. When the possessor is a pronoun its plurality is spelled out twice within the possessive DP (80). When a possessor is a full DP, there is a single plural marker *-k*. The plurality of the possessor is not indicated on the possessee (81).

- (80) a m-i autó-n-k
 the 1.DEF-PL car-1.DEF-PL
 ‘our car’

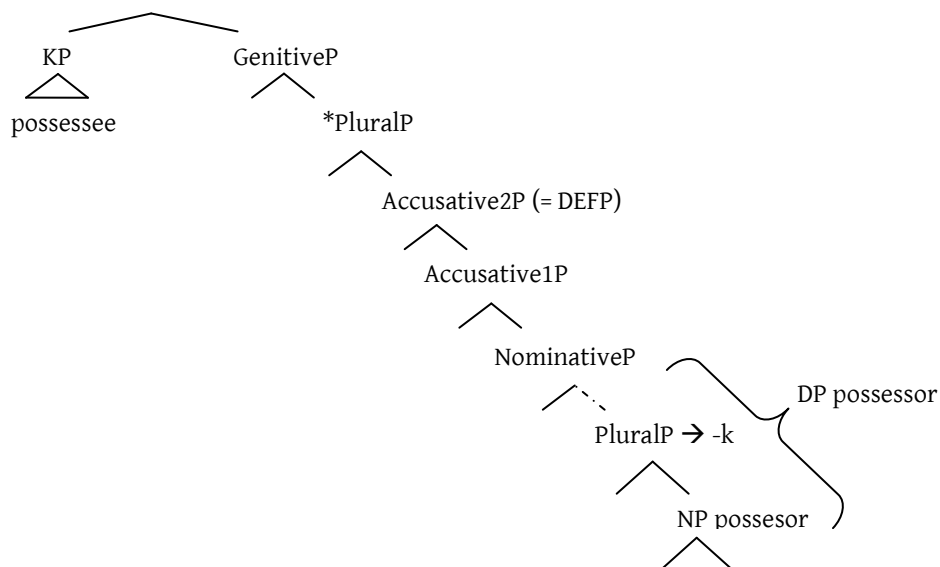
- (81) a. a fiú-k könyv-e
 the boy-PL book-3.SG
 ‘the boys’ book.’

- b. *a fiú-k könyv-ük
 the boy-PL book-3.PL

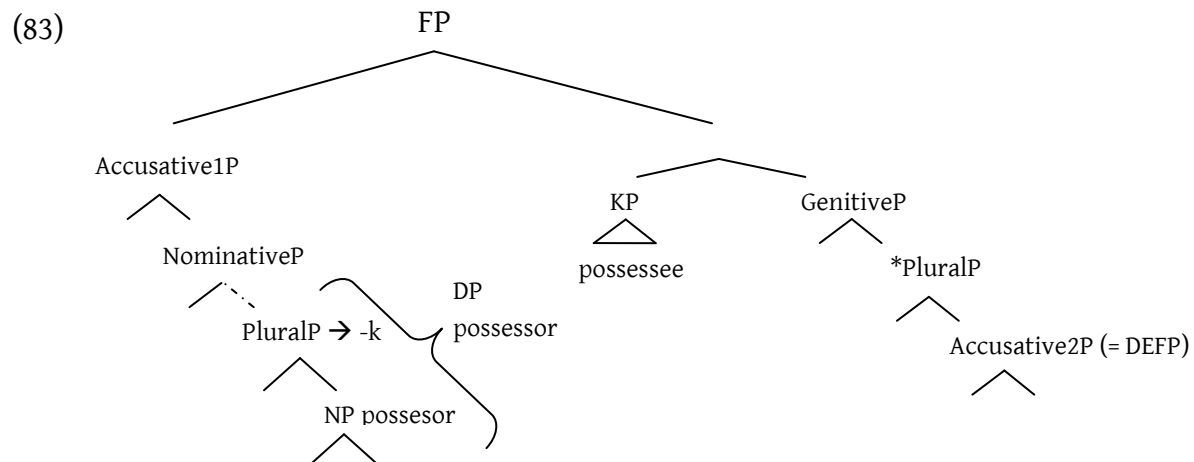
c. *a fiú könyv-ük
the boy book-3.PL

As argued in Chapter 5, possessors are embedded under genitive KP. If the plurality of full DPs is not encoded in their KP, as proposed here, the absence of a plural morpheme on the possessor marker in (80) is expected. In the structure in (82), the genitive KP* possessor is the sister of the KP* possessee. This is similar to the structure in (78) where the possessor is a pronoun. The only difference between the KP* possessors in (82) and in (78) is the absence (signaled by an asterisk in (82)) of a plural layer in the KP of the full DP possessor.

(82) Base-generated structure of a possessive DP with a full possessor DP



I assume that the lower part of the KP* raises to a functional projection and strands the higher layers. More precisely, as is the case with pronominal possessors (cf. Chapter 5), the Accusative1P constituent raises and strands the GenitiveP constituent (83).



As there is a plural layer in the raised constituent but no plural layer in the stranded constituent, the presence of a plural morpheme on the DP possessor preceding the possessee and the absence of a plural morpheme on the possessor suffix in (81a) are expected.

Summing up, I have first observed that when direct objects are full DPs, their plural feature is encoded only within their DP, not within their KP. I have thus assumed that the plural feature of full DPs generally does not reduplicate. This was supported by the fact that when a possessor is a full DP, its plural feature is not reduplicated in its KP either, as shown by the anti-agreement fact in (81). There is thus an important difference between KPs which take a pronoun in their complement and those whose complement is a full DP. The former contain a reduplication of the phi-features of their complement while the latter don't. Interestingly, the same observation can be made for English. This is shown in the following section.

6.5.2 Pronominal vs full DP possessors in English

In Chapter 5, I drew a parallel between the expression of possession with a pronominal possessor in English and Hungarian. I showed that in English like in Hungarian, the phi-features, and thus the plural layer, of the pronominal possessor are reduplicated in the genitive KP. The data are partially repeated in (84).

- (84) a. a t-i toll-at-ok
 the 2.DEF-PL.ACC pen-2.DEF-PL.GEN
 b. you-r pen
 2.DEF.PL.ACC-2.DEF.PL.GEN possessee

This parallel extends to the expression of possession with a full DP possessor. As witnessed by the data in (85), the plural feature of a full DP possessor in English does not reduplicate in the possessor KP, just like in Hungarian (81).

- (85) a. the child-ren ' s toy ⁵⁵
 DPpossessor-PL.ACC DEF.GEN possessee
 b.*the child-ren ' r toy
 DPpossessor-PL.ACC DEF.PL.GEN possessee

All in all, if the parallel between the expression of nominal possession in Hungarian and English holds, the phenomenon of anti-agreement can be said to also be a feature of English.

6.5.3 Extension of the analysis

Finally, the data presented here suggest that the amount of reduplicated features in a KP vary in function of the nature of a nominal. Though I do not have an explanation for this observation, I point out that, as has been independently observed, the size of reduplicated chunks of the functional sequence may vary. Recall Taraldsen (2010, 2012)’s analysis of noun class-markers in Xhosa mentioned in section 5.4.4.1 of Chapter 5. According to Taraldsen, the left most vowel in the class marker *aba* in (86) is the spell-out of the reduplicated *aug₇*-layer (87).

- (86) aba-ntwana
2-child
'children'

- (87) [aug₂ [ac₂[sc₂ [aug₂ [ntwana]]]]]
 | └─┬─┘ |
 a b a ‘child’

Taraldsen (2012: 6, his (38))

⁵⁵ Anderson (2013: 1) observes that 's attaches to the very right of the possessor, whatever the size of the latter is (i). Given the analysis developed here in which 's spells out a layer of the genitive KP, this would mean that all constituents which can serve as possessors can be the complement of a genitive KP (ii).

(i) Every man I know 's taste in wallpaper is appalling. Anderson (2013: 1)

(ii) [_{KP}possessee taste [GEN [DEF [ACC [NOM [every man I know]]]]]]

For other proposals as to the nature of English 's, see Alexiadou (2005), Anderson (2013), Lyons (1999: 124) and references therein.

Taraldsen (2012: 8) also observes that in another Bantu language, Lubukusu, most noun class-markers not only display two identical vowels but also two consonants. This can be seen in (88).

(88) Sample of Lubukusu noun-class markers

Class 2 ba-ba-

3 ku-mu

4 ki-mi-

5 li-li

6 ka-ma-

7 si-si-

8 bi-bi-

11 lu-lu-

14 bu-bu-

15 khu-khu

selected from Taraldsen (2012: 8, his (51))

Building on his analysis of the Xhosa reduplicated vowels, Taraldsen concludes that, in Lubukusu, a part of the functional sequence is also reduplicated. However, Taraldsen (2012: 8) adds, the reduplication targets a larger part of the functional sequence in Lubukusu than in Xhosa. As illustrated in (89) with the class 3 prefix *kumu-*, not only the ‘aug’-layer is reduplicated but also the ‘sc’-layer.

(89) [sc₃ [aug₃]] [ac₃[sc₃ [aug₃ [N]]]]

		⏟	
k	u	m	u

Taraldsen (2012: 8, his (55e))

While Taraldsen observes that the size of the reduplicated structural chunk may vary from one language to another, the Hungarian and the English data studied here indicate that such a variation can be language internal and depend on the nature of the nominal. In the KP of a pronominal possessor, not only the definiteness feature but also the phi-features

are reduplicated. In the KP of a full DP direct object or possessor, reduplication only targets definiteness.⁵⁶

If the idea that the size of reduplicated structural chunks is parameterized is correct, we predict that there exists languages in which the number of layers reduplicated in the KP of full DPs might be higher than that in Hungarian or English. That is, while only definiteness, but not phi-features, are reduplicated in the KP of full DPs in Hungarian and in English, there might be languages in which not only the definiteness but also the phi-features of the direct object are reduplicated in the KP. In what follows, I tentatively suggest that Ostyak, Swahili and Macedonian are such languages.

In Ostyak, an ob-Ugrian language, definite direct objects co-occur, like in Hungarian, with a direct object marker on finite verbs. However, differently from Hungarian direct object markers, those in Ostyak also indicate the number (singular, dual, plural) of the direct object (Bossong 1998: 241-242, Nikolaeva 1999).⁵⁷ From the perspective adopted here, this suggests that not only the definiteness layer of the direct object is reduplicated within the KP of direct objects in Ostyak but also the number layer.

- (90) a. ma tām taŋk-et wet-s-**əta**-m
 I this squirrel-PL kill-PRT-**PL.OBJ**-1.SG.SUBJ
 ‘I killed these squirrels.’
 b. ma ar taŋkə wet-s-əm
 I many squirrel kill-PRT-1.SG.SUBJ
 ‘I killed many squirrels.’

Bossong (1998: 242, his (81a, b))

As illustrated in (91), in Swahili, an object marker appears on the finite verb when the latter takes a direct object whose referent is animate (91a-c) or inanimate but definite (91d, e).⁵⁸ As is clear from the examples, the direct object marker is morphologically similar to the noun-class marker prefixed on the direct object (Corbett 2006: 87-88). As noun class markers in Bantu indicate the class and the number of a noun (cf. Chapter 5), it is tempting to suggest that the direct object marker spells out a chunk of structure composed not only

⁵⁶ I assume that the spell-out of the reduplicated DEF-layer in the KP of English D-linked direct object full DPs is \emptyset , just like the accusative case marker on indefinite direct objects.

⁵⁷ According to Nikolaeva (1999), it is the topicality, not the definiteness, of the direct object which is at play in Ostyak direct object marking. I gloss over this here.

⁵⁸ For a detailed study of direct object marking in Swahili and other Bantu languages, see Riedel (2009).

of the reduplicated definiteness (and/or animacy) layer but also the reduplicated phi-feature (number and class) layers of the direct object.⁵⁹

(91) a. Juma a-li-**wa**-ona **wa**-toto.

1.Juma SUBJ-PAST-OBJ-see 2-child

‘Juma saw (the) children.’

adapted from Riedel (2009: 4, her 3a)

b. Ni-li-**mw**-ona yule m-tu.

1.SG-PAST-OBJ-see this 1-person

‘I saw this person.’

c. Ni-li-**mw**-ona m-to mmoja.

1.SG-PAST-OBJ-see 1-person one

‘I saw one person.’

d. Ni-li-soma ki-tabu.

1.SG-PAST-read 7-book

‘I read a book.’

e. Ni-li-**ki**-soma ki-tabu.

1.SG-PAST-OBJ-read 7-book

‘I read the book.’

Swahili, adapted from Lyons (1999: 210, his (39), (40))

Similar data are found in Macedonian. According to Franks (2009: 185) and Friedmann (1993: 291), a direct object marker occurs on finite verbs whose direct objects are specific.⁶⁰

⁵⁹ This is very similar to Taraldsen (2010: 1533-1534)’s analysis of object markers in Nguni (a subgroup of Bantu languages). Taraldsen demonstrates that the layers spelled out by the direct object markers are identical to a subpart of the layers spelled out by the class-markers. However, Taraldsen does not discuss how direct object markers are syntactically related to the direct object nor how they show up on the finite verb.

⁶⁰ Direct object markers in Macedonian (and similarly in Bulgarian) are often analyzed as doubling clitics (Corbett 2006: 13; Franks 2009; Franks & Rudin 2005; Migdalski 2006: 182-221). From the perspective suggested here, doubling clitics would actually be the spell-out of definiteness and phi-features layers reduplicated on top of the accusative layer in the KP of direct objects. However, further investigation is needed to evaluate the validity of this proposal, especially given that definiteness and phi-feature marking on the finite verb is not limited to direct objects in Macedonian and Bulgarian (Franks 2009:208, Franks & Rudin 2005, Migdalski 2006: 190-221). Note however that Franks (2009: 196) and Franks & Rudin (2005: 10-12) propose a base-generated structure of clitic doubling in Macedonian and Bulgarian which in certain aspects is similar to the one I advocate here. Especially, they argue that clitics are base-generated in a KP which takes the direct object in its complement.

(i) a. Statijata ja pročetoх.

‘I read the article.’

b. [_{VP} pročetoх [_{KP} [_K ja [_{DP} D° [_{NP} statijata]]]]

I-read it the-article

Bulgarian, Franks & Rudin (2005: 11, their (14a, d))

As illustrated in (92), the phi-features spelled out by the direct object marker on the finite verb match those of the full direct object DP.

- (92) a. kuče-to ja-kasa mačka-ta
 dog-DEF.N.SG 3.SG.F.ACC-bite.3SG cat-DEF.F.SG
 ‘the dog bites the cat.’

Macedonian, Corbett (2006: 13, his (23))

- b. *(Go) vidov šefot.
 him.CL.ACC see.PAST.3.SG boss-the
 ‘I saw the boss.’

Macedonian, Migdalski (2006: 184, his (51))

6.6 Summary

In this chapter, I have first argued that the existence of the definite conjugation in Hungarian is an instance of differential object marking. I have then laid the foundations of a nanosyntactic account of DOM. I proposed to split Caha (2009)’s accusative layer into two layers: Accusative1P, which is merged in the KP of all direct objects and Accusative2P which is merged on top of Accusative1P when a direct object is high on a semantic scale. In Hungarian, the definiteness scale is at play. The Accusative2P is merged in the KP of all definite DPs and in that of some indefinite ones. During the clausal derivation, this layer is stranded and attracted to a position near the finite verb. I have proposed that this movement of the Accusative2P layer is caused by D-linking requirements, similarly to the movement of scrambling objects. Then, I have shown that the analysis can also account for the use of the definite conjugation with possessive and reflexive pronouns and with finite complement clauses.

Finally, I have compared the featural content of the KP of full DPs and pronouns. I observed that in Hungarian and English, the plurality of the referent is reduplicated only in the KP embedding pronouns. In other languages, however, the phi-features of the referent reduplicate in the KP of both pronouns and D-linked full DP direct objects.

7 Conclusion and future prospects

7.1 Summary and conclusion

This dissertation has offered a novel perspective on direct object marking. It has provided an account of object definiteness marking in Hungarian and laid the foundations for a nanosyntactic understanding of the crosslinguistically widespread phenomenon of differential object marking.

In Chapter 2, I presented the Nanosyntactic framework in which the dissertation is couched. In Chapter 3, I introduced the definite and the indefinite conjugations in Hungarian. I showed that the distribution of these conjugations is dependent on a semantic property of the direct object. On the basis of the definiteness-effect test, I showed that definite as well as some indefinite direct objects co-occur with the definite conjugation. The remaining indefinite noun phrases co-occur with the indefinite conjugation. This distributional pattern of the two conjugation paradigms led to the formulation of the two main research questions of this dissertation:

- (1) How is the (in)definiteness of the direct object related to the existence of the two conjugation paradigms in Hungarian?
- (2) Does the existence of two conjugation paradigms in Hungarian relate to other phenomena involving direct objects crosslinguistically. If so, how?

To answer these questions, I examined separately the use of the (in)definite conjugations with personal pronouns and with full DPs. Personal pronouns were studied in Chapter 4 and 5 and full DPs in Chapter 6. In Chapter 4, I observed that pronouns which display two sets of phi- and definiteness-morphemes co-occur with the indefinite conjugation. Differently, 3rd person direct object pronouns lack a definiteness morpheme and co-occur

with the definite conjugation. I therefore hypothesized that the absence of the definiteness morpheme in 3rd person direct object pronouns and the occurrence of the definite conjugation were two sides of the same coin. More precisely, I suggested that the definiteness morpheme is missing in 3rd person pronouns because it is spelled out on the finite verb, as part of the definite personal ending. This hypothesis was supported by the following fact: the set of allomorphs of the definiteness morpheme in pronouns is identical to the set of allomorphs which encode the definiteness of direct objects on finite verbs. I concluded that the definiteness marker on the finite verb is base-generated within the direct object but is then attracted to the vicinity of the finite verb. In order to identify precisely the base-generated position of the definiteness morpheme, I provided a nanosyntactic decomposition of Hungarian personal pronouns in Chapter 5. I argued that the structure of Hungarian personal pronouns is similar to that of possessive DPs. In particular, I proposed that they contain a genitive KP*, which corresponds to the possessor in possessive DPs. Then, I compared the structure of the genitive KP* of 3rd person direct object pronouns with that of the other personal pronouns. In between the accusative and genitive case layers of these KPs*, I identified the definiteness layer which is missing in 3rd person direct object pronouns and which is present in other pronouns.

In Chapter 6, I turned to full direct object DPs. I compared the distribution of the definite and the indefinite conjugation in Hungarian with the phenomenon of differential object marking. I observed that the direct objects which co-occur with the definite conjugation in Hungarian belong to the same semantic type of direct objects that are differentially marked cross-linguistically. In order to formalize this fact, I proposed to split the accusative case layer of Caha (2009) into two accusative case layers. The lower one is merged in the KP of all direct objects, the higher one encodes definiteness and is merged in the KP of differentially marked direct objects. In most languages, this upper layer is spelled out by a preposition or a case suffix. In Hungarian, however, this upper layer is stranded during the clausal derivation and attracted to the vicinity of the finite verb, where it is subsequently spelled out. This gives rise to the endings of the definite conjugation. I suggested that the movement of the definiteness layer is similar to the movement undergone by scrambled objects in Germanic.

The answers to the questions in (1) and (2) constitute the main claims of the dissertation and can be summed up as follows:

- (3) The definite conjugation in Hungarian arises from the spell-out on the finite verb of a structural definiteness layer base-generated within definite direct objects.

- (4) The phenomenon of object definiteness marking in Hungarian is an instance of differential object marking. Hungarian differs from most differential object marking languages in that its differential object marker is spelled out on the finite verb while it is usually spelled out as a preposition or a case suffix on the direct object.

In the next section, I introduce some avenues for further research.

7.2 Future prospects: agreement in Nanosyntax

As pointed out by Van Craenenbroeck (2012: 50-55), the mainstream Agree mechanism (Chomsky 2000, 2001) is incompatible with the Nanosyntactic framework. This is essentially because in an Agree system, phi-features are parts of syntactic heads. However, in Nanosyntax, phi-features are independent syntactic objects. Just like other features, they project their own syntactic layers. Phi-features can thus only be the head of their own projection, they cannot be parts of other heads.

In this dissertation, I have developed an account of direct object marking in Hungarian without resorting to an Agree relation established between the verb and its direct object. In section 7.2.1, I sketch how this can be used to capture an other phenomenon which is traditionally accounted for in terms of feature valuation: past participle agreement with a direct object in French. If direct object marking can be accounted for by Peeling, the question arises whether agreement with other arguments, and in particular subjects, can be accounted for similarly. I briefly address this question in section 7.2.2.

7.2.1 Past participle agreement in French

In standard French, past participles can agree with raised direct objects. In (5), for instance, the participle *fait* ‘made’ can either be bare or suffixed by markers which encode the phi-features of the feminine plural direct object *fautes* ‘mistakes’.

- (5) Dis-moi combien de fautes tu as fait / fait-e-s.

Tell me how.many of mistakes you have made / made-FEM-PL

‘Tell me how many mistakes you made.’

Obenauer (1994: 173, his 16)

Previous analyses of this phenomenon take the agreement marker on the participle to result from a specifier-head agreement or feature-checking mechanism (d’Alessandro & Roberts 2008; Belletti 2008; Den Dikken 1994; Friedeman & Siloni 1997; Kayne 1989, 1993, to

cite but a few). However, the analysis of direct object marking developed in the present dissertation suggests another account. I sketch this in what follows.

Obenauer (1994) demonstrates that when phi-feature markers appear on the participle, the direct object can only refer to a specific entity (see also Rizzi 2001). In (5), when the participle is suffixed by *-es*, the direct object *fautes* can only refer to particular mistakes. For instance, these mistakes may be part of a list of typical mistakes that people usually do. That is, the presence of the phi-feature markers in (5) has the same effect as the differential object marker *-ı* in Turkish. I repeat an example below.

(6) a.(Ben) bir kitab-ı oku-du-m.

I a book-ACC read-PST-1.SG

‘I read a certain book.’

b. (Ben) bir kitap oku-du-m.

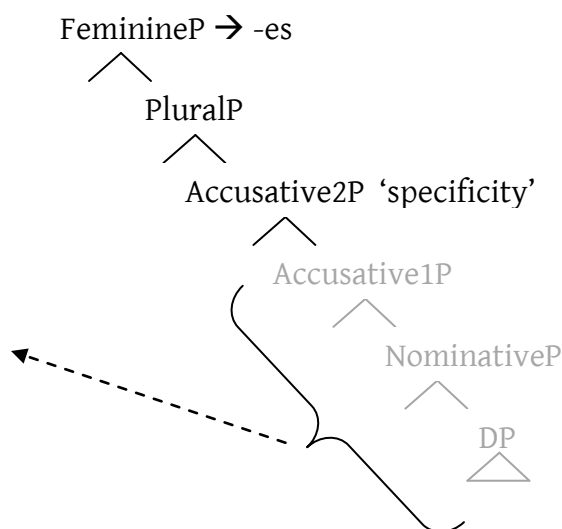
I a book read-PST-1.SG

‘I read a book.’

Turkish, Kornfilt (2008: 81, her (1))

That is, the participle marker seems to act like a differential object marker. In terms of the analysis of direct object marking developed in this dissertation, the phi-feature markers on the participle are the spellout of layers that are base-generated within the case sequence of the direct object. More precisely, this suffix spells out the reduplicated phi-feature layers together with an Accusative2P layer encoding the specificity of the direct object. In the course of the derivation, the Accusative1P constituent would raise and the upper layers would be peeled. This peel would then be spelled out on the participle as *-es*. This is sketched in (7).

(7)



7.2.2 Subject agreement

If agreement with a direct object in Hungarian and French is the spell-out on the verb of reduplicated phi and definiteness/specificity layers, the question arises whether subject agreement can be analysed in the same way. For instance, are the 1st and 2nd person subject markers -*Vk* and -*Vsz* in Hungarian the lexicalization of phi-feature layers stranded by the subject?

- (8) a. (Én) vár-ok. b. (Te) vár-sz.
 I wait-1.SG you_{SG} wait-2.SG
 ‘I am waiting.’ ‘You are waiting.’

We would have to postulate that the phi-features of subjects are reduplicated over the nominative case layer and that they are peeled when the subject raises to subject position. Consider now the French example in (9). It illustrates the agreement of a past participle with the subject of a passivized verb. As the subject *vous* is assigned a patient theta-role, let us assume that it is base-generated as an accusative KP*. Now, observe that not only the participle *admis*es but also the finite auxiliary *serez* agree with the subject. If phi-features may reduplicate not only over the Accusative1P layer but also over the nominative one, the agreement pattern in (9) is expected: the phi-features reduplicated over Accusative1P are spelled out on the participle and those reduplicated over NominativeP are spelled out on the finite verb.

- (9) Vous ser-ez admis-e-s à l’ université.
 you_{PL} will.be-2.PL accepted-FEM-PL at the university.
 ‘You will be admitted at university.’

However, the matter is complicated by the fact that the marker on the participle and that on the finite auxiliary do not spell out exactly the same set of phi-features: while the former encodes gender and plural, the latter encodes person and plural. This suggests that reduplication targets different portions of the sequence formed by phi-feature layers.

Suggestive support for this idea is provided once again in Taraldsen (2010: 1525-1534). First, recall from Chapter 4 that noun-class markers spell out the phi-features of a noun, i.e. its number and its class.¹ Taraldsen observes that subject agreement markers on finite

¹ Recall from footnote 32 in section 5.4.4.1 of Chapter 5 that noun-classes are often considered to be the Bantu counterpart of genders in Indo-European languages (Carstens 2008: 132-152, Taraldsen 2010: 1524, Corbett 1991: 43-49).

verbs in Bantu are morphologically identical to a subpart of the noun-class markers. This is shown in (10) with the markers of classes 1 to 5.

(10) Noun class markers and subject markers in Xhosa (Taraldsen 2010: 1531)

	Noun class marker	Subject marker on the verb
Class 1	u-m-	u-
Class 2	a-ba-	ba-
Class 3	u-m-	u-
Class 4	i-mi-	i-
Class 5	i-li-	li

On this basis, Taraldsen argues that subject markers spell out a subset of the structure of noun-class markers. From the perspective adopted in this dissertation, this means that a subset of the features of the subject are reduplicated within the case sequence of that subject. These layers are subsequently peeled and spelled out on the finite verb. Interestingly, Taraldsen further observes that object markers too are morphologically identical to a subpart of the noun-class markers. This is shown in (11). Also shown in this example is that, while object markers are mostly identical to subject markers, the subject and object markers of class 1 are distinct. This leads Taraldsen to argue that the underlying structures of all subject and object markers are only partially identical.

(11) Noun class markers, subject and object markers in Xhosa (Taraldsen 2010: 1533)

	Noun class marker	Subject marker on the verb	Object marker on the verb
Class 1	u-m-	u-	m-
Class 2	a-ba-	ba-	ba-
Class 3	u-m-	u-	u-
Class 4	i-mi-	i-	i-
Class 5	i-li-	li-	li-

Thus, French and Xhosa suggest that both subject and object markers spell out chunks of the nominal functional sequence, albeit partially different ones. A deeper investigation of this matter is left for further research.

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