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# MASTERARBEIT

Titel der Masterarbeit

„On the relation between Hungarian verb  
paradigms and differential object marking“

„Über die Beziehung zwischen ungarischen Verbparadigmen  
und differentieller Objektmarkierung“

Verfasser

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*Apá-m-nak*  
father-1SG.PX-DAT  
'to my father'



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# List of abbreviations

1SG	first person singular
ACC	accusative case
COMP	complementizer
COND	conditional mood
DAT	dative case
DEF	definiteness marker
FEM	feminine
ILL	illative case
INDIC	indicative mood
INE	inessive case
INSTR	instrumental case
LOC	locative case
NOM	nominative case
OBJ	objective conjugation
OM	object marker
PART	participle
PL	plural
PRF	prefix
PRT	particle
PX	possessive suffix
SM	subject marker
SUBJ	subjective conjugation
SBJV	subjunctive mood
SUP	superessive case
T	tense
VM	verb modifier



# Introduction

This thesis is about a peculiar feature of Hungarian verb morphology in relation to a widespread phenomenon known as differential object marking (DOM). Hungarian has two different paradigms for transitive verbs that appear depending on a certain property of the direct object, i.e., different types of direct objects co-occur with different morphological expression on the verb.

In many languages, a similar phenomenon has become known as DOM: not all objects are marked using the same morphological means. Some objects, usually definite, animate or topical ones, tend to be morphologically marked in languages with DOM, while direct objects that lack these features are often unmarked. DOM is often analyzed as a phenomenon that serves to disambiguate subjects from objects.

In this thesis, I will attempt to make a connection between these two phenomena and relate them to each other, discussing whether Hungarian verb paradigms count as an instance of DOM.

The thesis is structured as follows. In Chapter 1, I introduce the Hungarian noun phrase, the subjective and objective conjugation and I discuss their morphological structure, in addition to providing examples illustrating the use of the two conjugations.

Chapter 2 includes a detailed analysis of two theoretical approaches to the analysis of the Hungarian objective conjugation. I mostly discuss the question what exactly triggers the objective conjugation, i.e., what property of the direct object it is that requires objective morphology.

The phenomenon of DOM is introduced in detail in Chapter 3. I provide an overview of some of the recent literature on this topic and examine several proposals of how to account for the facts known under this term.

In Chapter 4, I bring together the previous discussion and relate the characteristics of the Hungarian objective conjugation to characteristics of DOM, as established in Chapter 3. I provide evidence for a structural analysis of Hungarian object agreement and discuss the nature of DOM in Hungarian.

Chapter 5 is a summary of the arguments and findings of the preceding chapters, presents the conclusions reached and mentions open questions that have not been addressed or solved in this thesis.





# 1 The phenomenon

Hungarian shows a peculiar kind of variation in its verb morphology. There are two different paradigms for verbs, usually referred to as *alanyi ragozás* ('subjective conjugation') and *tárgyas ragozás* ('objective conjugation'). Each conjugation co-occurs with objects with certain properties. Since these objects are noun phrases, it is necessary to provide a description of the Hungarian noun phrase to illustrate the phenomenon. This will constitute the first part of this chapter.

Next, I will discuss several aspects of the subjective and the objective conjugation, respectively. These include their morphological structure and their triggers, i.e., the properties (of noun phrases) that trigger each conjugation.

## 1.1 The noun phrase

This section will mostly reflect Szabolcsi (1994). Not all properties of the Hungarian noun phrase she discusses are relevant for this section. What I will mention is the structure of the noun phrase in general, the position of various determiners and adjectives relative to the noun and the structure of possessive constructions. This selection is not random: the aspects mentioned are relevant for the following sections.

Noun phrases without possessors can be composed of a (bare) noun, adjectives, numerals and various determiners, in a fixed order:

- (1) Det-Num-Adj-N(-pl)-Case (Szabolcsi 1994: 184)

Note that, of course, not every one of these categories has to appear in the noun phrase, except the noun itself. As we will see later, verbs can have bare nouns, i.e., noun phrases, as their objects, and various combinations of the mentioned elements, as shown in (2):

- (2) a. Kalap-ot vesz-ek.  
hat-ACC buy-1SG  
'I'm buying a hat.'  
b. Zöld kalap-ot keres-ek.  
green hat-ACC look for-1SG  
'I'm looking for a green hat.'

## 1 The phenomenon

See the following example by Szabolcsi (1994) for a less abstract illustration of typical elements in the noun phrase.

$$(3) \quad \left\{ \begin{array}{l} a \text{ 'the'} \\ \emptyset \text{ 'a(n), some'} \\ minden \text{ 'every'} \\ e, eme, ezen \text{ 'this'} \\ ama, azon \text{ 'that'} \\ melyik \text{ 'which'} \\ semelyik \text{ 'no, neither'} \end{array} \right\} két \text{ 'two'} \textit{fekete} \text{ 'black'} \textit{kalap} \text{ 'hat'}$$

(Szabolcsi 1994: 184)

(1) and (3) show that determiners precede numerals, numerals precede adjectives, and adjectives precede the noun itself. Note that plural does not have to be marked on the noun when it is introduced by a numeral (like *két* 'two' in (3)). Generally, elements preceding the noun do not agree with it, except in the demonstrative construction.

- (4) a. *ez a két hosszú könyv*  
this the two long book  
'these two long books'
- b. *ez-ek a hosszú könyv-ek*  
this-PL the long book-PL  
'these long books'
- c. *ez-ek-ben a hosszú könyv-ek-ben*  
this-PL-INE the long book-PL-INE  
'in these long books'

### 1.1.1 Nominative possessors

Possessive constructions add to the complexity of the noun phrase. Possessors are noun phrases (pronouns, proper names, other noun phrases) inside another noun phrase. They can be unmarked (or nominative) or bear dative case (*-nak/-nek*). The meaning of both constructions is the same, but there are substantial structural differences.

Possessed nouns have a suffix that reflects the possessor's person and number (glossed as *PX*) that resembles verbal suffixes. Szabolcsi (1994: 187) mentions that "[t]he historical reason is not known, but the possessive paradigm is the more regular of the two."

Two plural markers are available in possessive constructions. The usual suffix *-k* marks the plurality of the possessors, while the suffix *-i* marks the plurality of the possessum.

- (5) a. *a(z) (én) ház-am*  
the (I) house-1SG.PX  
'my house'

- b. a (ti) nagy ház-a-i-tok  
the your.PL big house-PX-PL-2PL  
'your (pl.) big houses'
- c. Mari három kert-je  
M. three garden-3SG.PX  
'Mary's three gardens'
- d. a gyerek két szép bicikli-je  
the child two pretty bicycle-3SG.PX  
'the child's two pretty bicycles'

A few remarks can be made about the nominative possessors in (5). First, in possessive constructions, pronouns are obligatorily preceded by the definite article *a(z)*. For proper names, there is dialectal variation regarding this question (see Szabolcsi 1994: 200f.). Since pronouns never appear with a definite article, Szabolcsi takes the article in (5a) to belong to the whole construction.

Second, recall the order of elements in the noun phrase ((1), p. 3). The examples in (5) show the same order, but: given Szabolcsi's argument regarding the definite article, the nominative possessor follows the determiner. We have to adapt (1) for possessives, and extend it even further in light of examples like (6), where a different determiner is inserted between the possessor and the noun.

- (6) az én minden állítás-om  
the I every claim-1SG.PX  
'my every claim' (Szabolcsi 1994: 210)

Given (5), (6) and (1), the order of elements in possessive constructions with a nominative possessor is the following (I follow Szabolcsi 1994 in referring to the definite article as D).

- (7) D-NomPoss-Det-Num-Adj-N

### 1.1.2 Dative possessors

Possessors can bear nominative or dative case. Possessives with dative possessors differ from the ones just seen in a few aspects. The order of elements in the noun phrase given in (7) has to be revised again to accommodate noun phrases with dative possessors.

- (8) a. Mari-nak minden kert-je  
M.-DAT every garden-3SG.PX  
'every garden of Mary's'
- b. a gyerek-nek a két szép bicikli-je  
the child-DAT the two pretty bicycle-3SG.PX  
'the child's two pretty bicycle'

## 1 The phenomenon

Note that while (5c) and (8a) do not differ in the order of their elements, in (8b) there are two definite articles. In this case, it seems that the first determiner is the possessor's definite article, while the second is the article of the noun phrase (see Szabolcsi 1994: 210 for more on different types of determiners and their interaction).

In order to house dative possessors in the noun phrase, a final revision has to be made:

- (9) DatPoss-D-(NomPoss)-Det-Num-Adj-N

### 1.1.3 Summary

Hungarian noun phrases come in two main types: those with and those without possessors (remember that those with possessors can have elided possessors; in that case, the noun still has a possessive suffix). There are two types of possessors, nominative and dative. So far, I have only mentioned structural differences regarding these types of phrases, since this will suffice for the following overview of Hungarian verb morphology.

## 1.2 The subjective conjugation

The subjective conjugation is one of the two relevant (for our purposes) verbal paradigms in Hungarian. Table 1.1 shows the subjective suffixes. The variants shown there are due to certain morphophonological processes (mostly vowel harmony). These suffixes will be glossed as *SUBJ*, with an indication of person and number. The following constructions trigger the subjective paradigm.

Singular	1st	-ok, -ek, -ök
	2nd	-(a)sz, -(e)sz, -ol, -el, -öl
	3rd	-Ø
Plural	1st	-unk, -ünk
	2nd	-(o)tok, -(e)tek, -(ö)tök
	3rd	-(a)nak, -(e)nek

Table 1.1.: Present tense subjective suffixes (Kiefer 2003: 213)

**Intransitive verbs** Verbs without object have subjective morphology.<sup>1</sup> Transitive verbs also appear with subjective morphology when they do not have an object (cf. (11); when object drop occurs, the verb still has objective suffixes).

<sup>1</sup>There is a class of verbs, the so called *-ik*-verbs, that have a different suffix for the 1st person singular and the suffix *-ik* in the 3rd person. Other than that, their forms are as in 1.1.

- (10) El-megy-ek.  
away-go-1SG.SUBJ  
'I am going away.'
- (11) Lát-ok.  
see-1SG.SUBJ  
'I see.' (i.e., *I am not blind.*)

**Bare noun phrases, indefinite articles and numerals** The least complex object is a bare noun phrase. Bare noun phrases always co-occur with subjective morphology. The indefinite article *egy* 'one, a(n)' and numerals also trigger subjective morphology.

- (12) Kenyer-et vesz-ek.  
bread-ACC buy-1SG.SUBJ  
'I am buying bread.'
- (13) Lát-ok egy kutyá-t.  
see-1SG.SUBJ a dog-ACC  
'I see a dog.'
- (14) Három hangszer-t hall-ok.  
three instrument-ACC hear-1SG.SUBJ  
'I hear three instruments.'

**Quantifiers** Certain quantifiers like *minden* 'every', *valamennyi* 'some', *néhány* 'some' require the subjective conjugation. Note that *valamennyi* can also mean 'each', in which case it triggers the objective conjugation (as mentioned below).

- (15) Minden level-et elolvas-ok.  
every letter-ACC read-1SG.SUBJ  
'I read every letter.'
- (16) Valamennyi Ady-vers-et tud-ok kívülről.  
some Ady-poem-ACC know-1SG.SUBJ by heart  
'I know some poems by Ady by heart.' (É. Kiss 2003a: 91)

**Indefinite pronouns ending in -ki, -mi** The wh-words *ki* 'who', *mi* 'what' and their compounds *valaki* 'someone', *valami* 'something' trigger subjective morphology, as do the relative pronouns *aki* 'who' and *ami* 'that' (cf. É. Kiss 2003a: 93). Not only the quantifier *minden* 'every' (cf. (15)), but also *mindenki* 'everyone' requires subjective morphology.

## 1 The phenomenon

- (17) a. Ki-t ismer-sz?  
 who-ACC know-2SG.SUBJ  
 ‘Who do you know?’ (É. Kiss 2003a: 91)
- b. mindenki-t/valaki-t/bármilyen-t/valami-t  
 everyone-ACC/someone-ACC/anything-ACC/something-ACC  
 ismer-sz  
 know-2SG.SUBJ  
 ‘You know everyone/someone/whatever/something.’ (ibid.)

**1st and 2nd person singular pronouns** *engem* ‘me.ACC’ and *téged* ‘you.ACC’ require the subjective conjugation. They can be dropped with the verb retaining subjective morphology. Why these pronouns behave differently from third person pronouns will be discussed later.

- (18) Péter tegnap lát-ott (engem/téged).  
 P. yesterday see-PAST.3SG.SUBJ (me/you)  
 ‘Peter saw me/you yesterday.’

## 1.3 The objective conjugation

The objective conjugation is triggered when a verb has an object that does not have the properties mentioned so far. Most of these constructions are quite straightforward, but there is some variation regarding possessive constructions and not all determiners and quantifiers behave alike — some trigger the subjective conjugation (seen above), some trigger the objective conjugation. The objective suffixes are shown in 1.2.

Singular	1st	-om, -em, -öm
	2nd	-od, -ed, -öd
	3rd	-ja, -i
Plural	1st	-juk, -jük
	2nd	-játok, -itek
	3rd	-ják, -ik

Table 1.2.: Present tense objective suffixes (Kiefer 2003: 214)

Nikolaeva (1999) provides a list of constructions that require objective morphology in Hungarian (cf. also Coppock and Wechsler 2011: 4).

“The list of definite direct objects that trigger the objective conjugation in Hungarian includes referential NPs of the following types: proper nouns, the

nouns determined by a demonstrative pronoun or a definite article, possessive NPs, 3rd person personal pronouns, reflexive, demonstrative and some other types of pronouns, as well as embedded complement clauses, and null objects. The Hungarian objective conjugation is used if and only if the object belongs to one of the aforementioned formal categories while with all other types of objects only the subjective conjugation occurs.”

(Nikolaeva 1999: 6)

**Proper names, 3rd person pronouns** These categories are prototypically definite (but remember the case of 1st and 2nd person pronouns above) and always appear with the objective conjugation. Reflexive and reciprocal pronouns also require objective morphology.

- (19) Tegnap lát-t-a Péter-t.  
yesterday saw-PAST-3SG.OBJ P.-ACC  
‘Yesterday, he saw Peter.’
- (20) Nem ő-t keres-em, hanem a barát-já-t.  
not s/he-ACC look for-1SG.OBJ but the friend-3SG.PX-ACC  
‘I’m not looking for her/him, but for her/his friend.’
- (21) Magam-at keresem. / Egymás-t keres-sük.  
self-ACC look for-1SG.OBJ / ourselves-ACC look for-1PL.OBJ  
‘I’m looking for myself. / We’re looking for ourselves.’

**Definite and demonstrative determiners** The presence of the definite article *a(z)* and constructions with the demonstrative determiners *ez a* ‘this’, *az a* ‘that’ trigger objective suffixes.

- (22) a. Lát-om a kutyá-t.  
see-1SG.SUBJ the dog-ACC  
‘I see the dog.’
- b. Szeret-i ez-t az étterm-et.  
like-3SG.OBJ this-ACC the restaurant-ACC  
‘S/he likes this restaurant.’

**Complement clauses with *hogy*** Embedded clauses that are introduced by the complementizer *hogy* trigger the objective conjugation. Bartos (1999) suggests that this is because of the (optional) presence of the definite pronoun *azt*, as shown in (23). This is controversial (see Coppock and Wechsler 2011 and the discussion below).

## 1 The phenomenon

- (23) Péter (azt) javasol-t-a,                      hogy men-j-ünk                      Ameriká-ba.  
P.    (that) suggest-PAST-3SG.OBJ COMP go-SBJV-1PL.SUBJ America-ILL  
'Peter suggested that we should go to America.'

**Quantifiers** As mentioned above, quantifiers show variation with respect to their requirements. Quantifiers with the suffix *-ik*, like *mindegyik* 'each', *bármelyik* 'any', *valamelyik* 'a certain', etc. require objective suffixes. Also, *valamennyi* meaning 'each' triggers the objective conjugation, in contrast to its other meaning shown in (16) above.

- (24) Valamennyi Ady-vers-et    tud-om                      kívülről.  
Each                      Ady-poem-ACC know-1SG.OBJ by heart  
'I know each poem by Ady by heart.' (É. Kiss 2003a: 91)
- (25) Mindegyik-et kér-i-tek?  
each-ACC                      want-OBJ-2PL  
'You want each one?'

**Null objects** Null objects are objects that have been dropped, but that are recoverable from context. Note that there *is* an object in these cases, it is just not spelled out. This is in contrast to example (11) above.

- (26) Nem lát-om!  
not see-1SG.OBJ  
'I don't see it.'

**Possessive constructions** Finally, possessive constructions usually require objective suffixes. There is some variation regarding such objects and some authors claim that a change in meaning is involved. In standard Hungarian, possessives trigger objective suffixes:

- (27) Elront-ott-a                      Péter bicikli-jé-t.  
ruined-PAST-3SG.OBJ P.    bicycle-3SG.PX-ACC  
'S/he ruined Peter's bike.'

Several authors mention that this is not necessarily the case in every variety (cf. Bartos 1999: 741f., É. Kiss 2003a: 91). Some varieties show the following alternation:

- (28) a. Péter-nek ismer-ek                      két nővér-é-t.  
P.-DAT    know-1SG.SUBJ two sister-3SG.PX-ACC  
'I know two of Peter's sisters.'



### 1.3 The objective conjugation

- b. Péter-nek ismer-em két nővér-é-t.  
P.-DAT know-1SG.OBJ two sister-3SG.PX-ACC  
'I know Peter's two sisters.' (É. Kiss 2003a: 91)

Bartos (1999: 99) mentions similar examples and claims that these constructions also result in different meanings. The object in (29a) is claimed to have a specific interpretation, while the object in (29b) is claimed to be non-specific.

- (29) a. Olvastuk néhány versedet.  
read-PAST-1PL.OBJ some poem-2SG.PX  
'We read some of your poems.' or '...some particular poems of yours.'  
b. %Olvastunk néhány versedet.  
'We read some of your poems.' (Bartos 1999: 99)

I will take up this difference in meaning during the discussion of the theoretical approaches to the subjective and the objective conjugation.

As mentioned above, several determiners trigger the objective conjugation, cf. Table 1.3 (following É. Kiss 2003a: 153, É. Kiss 2003a: 90 and Coppock and Wechsler 2011: 4). With respect to quantifiers, in some cases, there seems to be a semantic difference that leads to the different conjugation, but some quantifiers that might be expected to trigger the objective conjugation (like *minden* 'every'), do not. I will return to this question in Chapter 2 and Chapter 4.

<i>a(z)</i>	'the'	<i>mindegyik</i>	'each one'
<i>eme</i>	'this'	<i>hányadik</i>	'which number'
<i>ez a</i>	'this'	<i>valamennyi</i>	'each'
<i>az a</i>	'that'	<i>az összes</i>	'all'
<i>melyik</i>	'which'	<i>mindegyik</i>	'each'
<i>bármelyik</i>	'whichever'	<i>valamelyik</i>	'one or the other, a certain'

Table 1.3.: Determiners triggering the objective conjugation

Finally, Table 1.4 summarizes the discussion and indicates which constructions trigger which conjugation.

Subjective conjugation	Objective conjugation
bare nouns	proper names
indefinite article ( <i>egy</i> )	definite article ( <i>a(z)</i> )
numerals ( <i>három, öt, ...</i> )	definite determiners ( <i>ezt, azt, ...</i> )
certain determiners ( <i>minden, néhány, ...</i> )	possessive constructions
1st and 2nd person singular pronouns	3rd person pronouns
<i>ki</i> ‘who’, <i>mi</i> ‘what’	reflexive and reciprocal pronouns
	<i>hogy</i> -complement clauses
	null (elided) objects

Table 1.4.: Subjective and objective conjugation triggers

## 1.4 The morphology of the subjective and objective paradigms

In this section, I will give an overview of the morphological structure of the subjective and objective paradigms, respectively. The main focus will be on the question whether it is possible to segment an object-related morpheme in the objective forms. I will also mention possessive suffixes, the concept of markedness and how it can relate the two conjugations to each other. I will contrast two analyses of Hungarian verb paradigms: Kiefer (2000b, 2003), who focuses exclusively on the morphological structure of the suffixes and Rebrus (2000), who gives a detailed morphophonological analysis of objective verb forms. These approaches differ in what structure they attribute to complex verb forms.

Regarding Hungarian tenses and moods, four paradigms are relevant — those that have synthetic forms. These are the present tense and the past tense (marker *-t-*) in indicative mood and the imperative (*-j-*) and conditional (*-n(A)-*) moods in the present tense (other tenses have compound forms).

### 1.4.1 Basic structure

In subjective forms in the present tense, the subject agreement suffix follows the stem directly, while in the other tenses/moods, a tense/mood marker appears between stem and suffix. In objective forms, an additional morpheme can precede the person/number suffix. Different phonological contexts (e.g., certain stem final consonants) can change the form of the suffixes (e.g., giving rise to suffix-initial vowels), and vowel harmony influences the quality of the vowel in the suffix. The notation in Table 1.5 reflects these facts. *V* represents *o*, *e*, *ö*, i.e., a mid vowel whose features depend on vowel harmony. *A* is realized as *a* or *e*, *U* as *u* or *ü*, etc. The alternation in the present tense second person is

#### 1.4 The morphology of the subjective and objective paradigms

due to properties of the stem: a stem ending in sibilants or affricates takes the suffix *-Vl* (cf. Kiefer 2003: 211).

		Present tense	Past tense	Imperative	Conditional
Singular	1st	<i>-Vk</i>	<i>-Am</i>	<i>-Ak</i>	<i>-ék</i>
	2nd	<i>-(A)sz, -Vl</i>	<i>-Ál</i>	<i>-Ø/-Ál</i>	<i>-Ál</i>
	3rd	<i>-Ø</i>	<i>-Ø</i>	<i>-On</i>	<i>-A</i>
Plural	1st	<i>-Unk</i>	<i>-Unk</i>	<i>-Unk</i>	<i>-Ánk</i>
	2nd	<i>-(V)tVk</i>	<i>-AtVk</i>	<i>-AtVk</i>	<i>-ÁtVk</i>
	3rd	<i>-(A)nAk</i>	<i>-Ak</i>	<i>-AnAk</i>	<i>-ÁnAk</i>

Table 1.5.: Subjective suffixes (Kiefer 2003: 211ff.)

While the vowels preceding the suffixes are subject to changes, the suffixes are relatively regular in these tenses/moods, *-k* being a first person singular suffix, *-l* a second person singular suffix, etc.

The most obvious difference between the subjective and the objective paradigms as shown in Tables 1.5 and 1.6 appears in the present tense. In the third person singular and all plural forms in the present tense, *-j(A)-* or *-i-* appears before or as part of the suffix. This marker is referred to as the *definiteness marker* (*definitumjelölő*) by Rebrus (2000: 933). I have indicated the suffixes containing it clearly with bold letters (see the discussion below for its allomorphs).

		Present tense	Past tense	Imperative	Conditional
Singular	1st	<i>-Vm</i>	<i>-Am</i>	<i>-Am</i>	<i>-Ám</i>
	2nd	<i>-Vd</i>	<i>-Ad</i>	<i>-(A)d</i>	<i>-Ád</i>
	3rd	<b><i>-ja, -i</i></b>	<i>-A</i>	<i>-A</i>	<i>-Á</i>
Plural	1st	<b><i>-jUk</i></b>	<i>-Uk</i>	<i>-Uk</i>	<i>-Ánk</i>
	2nd	<b><i>-játok, -itek</i></b>	<i>-ÁtVk</i>	<i>-ÁtVk</i>	<i>-ÁtVk</i>
	3rd	<b><i>-ják, -ik</i></b>	<i>-Ák</i>	<i>-Ák</i>	<i>-Ák</i>

Table 1.6.: Objective suffixes (Kiefer 2003: 212ff.)

Abstracting away from a few irregularities and ignoring most suffix-initial vowels, Rebrus (2000) gives a slightly different picture of the person markers, shown in Table 1.7.<sup>2</sup>

<sup>2</sup>The absence of the suffix-initial vowels in Table 1.7 is due to a different analysis of the respective tense/mood markers. For the conditional, for example, Kiefer (2003) takes the alternating vowel to be a part of the suffix, while Rebrus (2000) analyses the vowel as part of the marker.

## 1 The phenomenon

		subj.	obj.
Singular	1st	<i>-k</i>	<i>-m</i>
	2nd	<i>-l</i>	<i>-d</i>
	3rd	—	—
Plural	1st	<i>-Unk</i>	<i>-Uk</i>
	2nd	<i>-tOk</i>	
	3rd	<i>-nAk</i>	<i>-k</i>

Table 1.7.: Subjective and objective paradigm suffixes (cf. Rebrus 2000: 932)

Comparing the two tables, it becomes clear that most personal suffixes are regular; irregular forms can be explained morphophonologically or by the need to avoid syncretism in the paradigm — e.g., the regular 1st person singular conditional suffix would be *-Ák*, the same as the 3rd person plural conditional suffix. Still, the ending *-k* is present in all first person singular subjective suffixes except the past tense form.

While Table 1.6 shows the presence of the marker *-j(A)/-i-* in the present tense, it is not obviously present in other tenses and moods, but in roughly half of the paradigm, objective forms have a regular additional element that subjective forms lack. The following examples illustrate some complete verb forms.

- (30)
- a. oszt-ok  
divide-1SG.SUBJ  
'I divide (something)'
  - b. oszt-om  
divide-1SG.OBJ  
'I divide (it)'
  - c. oszt-Ø  
divide-3SG  
's/he divides (something)'
  - d. oszt-ja-Ø  
divide-OBJ-3SG  
's/he divides (it)'

First and second person singular suffixes (second person not shown in (30)) are always fused, i.e., they consist of a single morpheme expressing person, number and subjective or objective conjugation across tenses and moods. In the third person singular, (30c,d), however, there is a clear contrast between subjective, (30c), and objective, (30d), morphology. The marker *-ja-* has certain allomorphs, e.g., following a verb stem with a front vowel such as *kér* 'want, ask for' it appears as *-i*, cf. (31).

#### 1.4 The morphology of the subjective and objective paradigms

- (31)    *kér-i-∅*  
         want-OBJ-3SG  
         ‘s/he wants (it)’

Present tense plural objective forms include this marker but interaction with the person/number suffix following it makes it appear in different forms, cf. (32).

- (32)    a.    *oszt-unk*  
             divide-1PL.SUBJ  
             ‘we divide (something)’  
          b.    *oszt-j-uk*  
             divide-OBJ-1PL  
             ‘we divide (it)’  
          c.    *oszt-otok*  
             divide-2PL.SUBJ  
             ‘you (pl.) divide (something)’  
          d.    *oszt-já-tok*  
             divide-OBJ-2PL  
             ‘you (pl.) divide (it)’  
          e.    *oszt-anak*  
             divide-3PL.SUBJ  
             ‘they divide (something)’  
          f.    *oszt-já-k*  
             divide-OBJ-3PL  
             ‘they divide (it)’

The *-j-* of the definiteness marker does not appear in any other verb form. In the past tense and conditional and subjunctive moods, some objective forms include the suffixes *-a-* or *-e-*, which can be taken to be an allomorph of this marker (though this is not accepted by all researchers: cf. Kiefer’s analysis above and the discussion in Rebrus 2000: 937ff.). The following examples illustrate these elements.

- |  |  |
|--|--|
| (33)    a. <i>oszt-ott-∅</i><br>divide-PAST-3SG<br>‘s/he divided (something)’      | d. <i>oszt-ott-a-atok</i><br>divide-PAST-OBJ-2PL<br>‘you (pl.) divided (it)’ |
| b. <i>oszt-ott-a-∅</i><br>divide-PAST-OBJ-3SG<br>‘s/he divided (it)’               | e. <i>oszt-ott-ak</i><br>divide-PAST-3PL.SUBJ<br>‘they divided (something)’  |
| c. <i>oszt-ott-atok</i><br>divide-PAST-2PL.SUBJ<br>‘you (pl.) divided (something)’ | f. <i>oszt-ott-a-ak</i><br>divide-PAST-OBJ-3PL<br>‘they divided (it)’        |

## 1 The phenomenon

- |  |   |
|--|---|
| <p>(34) a. <i>kér-t-Ø</i><br/>want-PAST-3SG<br/>'s/he wants (something)'</p> <p>b. <i>kér-t-e-Ø</i><br/>want-PAST-OBJ-3SG<br/>'s/he want (it)'</p> <p>c. <i>kér-t-etek</i><br/>want-PAST-2PL.SUBJ<br/>'you (pl.) wanted (something)'</p> | <p>d. <i>kér-t-e-etek</i><br/>want-PAST-OBJ-2PL<br/>'you (pl.) wanted (it)'</p> <p>e. <i>kér-t-ek</i><br/>want-PAST-3PL.SUBJ<br/>'they wanted (something)'</p> <p>f. <i>kér-t-e-ek</i><br/>want-PAST-OBJ-3PL<br/>'they wanted (it)'</p> |
|--|---|

(33) and (34) show the back and front variants, respectively, of past tense plural verb forms. (33d,f) and (34d,f) are spelled and pronounced with a single long vowel, *é*, [e:] and *á*, [a:], respectively. The glosses shown are justified by the fact that the additional element (-*a*- or -*e*-) is exactly the one appearing on its own in the third person singular objective form. Given that the difference between the forms illustrated in (33) and (34) lies in the presence of this element, it is possible to analyze it as an allomorph of the definiteness marker -*ja*-/-*i*- shown above (though, again, cf. Rebrus 2000: 937ff. for discussion of the nature of these elements).

In the conditional and subjunctive mood, -*a*-/-*e*- appear as well. In the conditional mood, however, first and second person singular forms are fused, as usual, while all plural forms are syncretic, i.e., there are no separate subjective and objective morphemes. The third person singular alone shows the following contrast:

- (35) a. *kér-ne-Ø*  
want-COND-3SG  
's/he would want (something)'
- b. *kér-ne-e-Ø*  
want-COND-OBJ-3SG  
's/he would want (it)'

Again, the objective form is spelled *kérné*, pronounced [e:]. If (contra Kiefer 2003: 215), we take the marker of the conditional mood to be -*na*-/-*ne*-, with the alternation based on the quality of the stem-internal vowel, the suffixes in (35) parallel the past tense shown in (34) exactly. In the subjunctive, -*a*-/-*e*- appear in the third person singular as well as the second and third person plural, as in the past tense, cf. (36) (in the third person singular, the subjective form has an overt person/number suffix, in contrast to other tenses/moods).

- (36) a. *kér-j-en*  
want-SBJV-3SG  
's/he should want (something)'

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- b. kér-j-e-Ø  
want-SBJV-OBJ-3SG  
's/he should want (it)'
- c. kér-j-etek  
want-SBJV-2PL  
'you (pl.) should want (something)'
- d. kér-j-e-etek  
want-SBJV-OBJ-2PL  
'you (pl.) should want (it)'
- e. kér-j-enek  
want-SBJV-3PL  
'they should want (something)'
- f. kér-j-e-ek  
want-SBJV-OBJ-3PL  
'they should want (it)'

The analysis of the suffixes presented in the last examples departs in a few ways from Kiefer's (2003) analysis shown in Tables 1.5 and 1.6. In Kiefer's tables, *-ja-/-i-* is presented as a person/number suffix on its own. The present tense plural forms include this marker as well. For Rebrus (2000) (cf. Table 1.7), this morpheme is the definiteness marker and the person/number suffixes in the third person singular and the plural forms in the present tense are separate morphemes.

A second departure from Kiefer's approach lies in the analysis of the person suffixes and the tense/mood markers. Kiefer (2003: 215) suggests that the marker for the conditional mood is *-n-* and not *-na-/-ne-* (for subjective forms) or *-ná-/-né-* (for objective forms). Conditional forms are quite irregular with respect to the rest of the paradigm, but as I argued above, assuming a single marker *-na-/-ne-* allows us to maintain that the third person singular suffix is *-Ø* and the addition of the object marker *-a-/-e-* leads to the long vowel in the objective form (cf. (35)). An advantage of this analysis might be that it allows us to maintain the same suffixes across tenses and moods. For example, Table 1.5 lists *-A* as the third person singular suffix in the conditional; with the modification introduced above, it is possible to suggest that the suffix here is in fact *-Ø* as well.

In the objective paradigms, separating an object marker from the person/number suffixes leads to similar results. While the morphological structure of the verb forms becomes more complex (cf. (33) for details), the suffixes across the paradigm are more regular, particularly in the third person singular, where the suffix can be assumed to be *-Ø* across the board (except in subjective subjunctive forms). The suffixes in Tables 1.5 and 1.6 easily follow from the presence of the object marker.

Summing up, I have argued that some objective forms can be analyzed as including a separate suffix that does not express person or number but some kind of reference to the object. Not all objective forms can be shown to include this marker, but where it is

present, it influences the morphophonological structure of the form in regular ways. This section was based on Rebrus (2000), although I did not follow his analysis exactly.

Among Rebrus' arguments for the structures above is that the empty third person singular marker parallels structure of a possessive suffix and the same marker in nominal possessive constructions. The similarities between verbal and possessive suffixes are striking enough to warrant a closer look at the possessive paradigm.

### 1.4.2 Possessive suffixes

As briefly mentioned in Section 1.1.1, Hungarian marks possessors with suffixes on the possessum and these bear some resemblance to verbal suffixes. In agreement terms, a NP possessor acts as a controller and its target, usually another NP, agrees with it in person and number. In addition, the possessum itself can be marked for plural. Since the possessor is optional, a suffixed noun can express the number and person of the possessor as well as its own number. See (37) for a few examples and Table 1.8 for the suffixes relating to the possessor's person and number.

- (37) a. Péter hajó-ja  
       P. ship-3SG.PX  
       'Peter's ship'  
       b. a hajó-nk  
       the ship-1PL.PX  
       'our ship'  
       c. a hajó-i-nk  
       the ship-PL-1PL.PX  
       'our ships'

	1st	- <i>Vm</i>
Singular	2nd	- <i>Vd</i>
	3rd	-∅
Plural	1st	-( <i>U</i> ) <i>nk</i>
	2nd	-( <i>V</i> ) <i>tVk</i>
	3rd	-( <i>U</i> ) <i>k</i>

Table 1.8.: Personal possessive suffixes (Kiefer 2003: 206)

In (37a), I glossed the ending *-ja* as the suffix for the third person singular, parallel to glossing *-nk* in (37b) as the suffix for the first person plural. This is clearly at odds with Kiefer's analysis shown in Table 1.8. His reasoning is the following (cf. Kiefer 2003: 204ff.). The marker *-jA* is present many third person singular forms (the capital *A* is



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standing in for the possible realisations  $\{a, e\}$  due to vowel harmony), as seen in (37a) and in forms like *kert-je* ‘his garden’. Given the following examples, the function of *-jA* might rather be that of a general possessive marker than a person marker, which allows us to segment the suffixes as suggested in Table 1.8.

- (38)
- |    |   |                         |
|----|---|-------------------------|
| a. | a | kert-je-i-m             |
|    |   | the garden-PX-PL.PX-1SG |
|    |   | ‘my gardens’            |
| b. | a | kert-je-i               |
|    |   | the garden-PX-PL.PX     |
|    |   | ‘his gardens’           |
| c. | a | kert-je-i-nk            |
|    |   | the garden-PX-PL.PX-1PL |
|    |   | ‘our gardens’           |

A few comments have to be made about these forms. The presence of *-j-* usually depends on certain morphophonological contexts; it is mostly missing if a stem ends in sibilants, affricates or palatalized consonants (though Kiefer 2003: 206f. mentions that this is not without exceptions). So we are dealing with a possessive morpheme with two allomorphs: *-(j)A*. Whatever its form, it is more relevant for the present discussion that a possessive marker appears.

Without the plural *-i-* in (38a-c), however, the picture changes. Forms referring to singular possession are not as regular as the ones above, see (39).

- (39)
- |    |   |                   |
|----|---|-------------------|
| a. | a | kert-em           |
|    |   | the garden-?1SG   |
|    |   | ‘my garden’       |
| b. | a | kert-je           |
|    |   | the garden-PX-Ø   |
|    |   | ‘his garden’      |
| c. | a | kert-j-ük         |
|    |   | the garden-PX-3PL |
|    |   | ‘their garden’    |

It seems that (39b) has a  $\emptyset$ -morpheme for third person, while in (39a) the possessive marker is the same as the person marker. Kiefer (2003: 206) suggests that the possessive marker only appears as *-(j)A* in the third person, singular and plural, if the possessum is in the singular. Otherwise, it is  $\emptyset$ . To summarize, see the following list and the examples below, based on Kiefer (2003).

- Hungarian has a suffix marking possession (glossed as PX): *-(j)A*. It always appears in this form with possessions in the plural, but only in the third persons in the singular.

## 1 The phenomenon

- There is a plural suffix *-i-* that marks the plural of the possessum.
- A personal suffix, marking the person and number of the possessor is always present and takes the forms shown in Table 1.8 above.

- (40) a. a ház-am  
the house-1SG.PX  
'my house'
- b. a ház-a-i-m  
the house-PX-PL.PX-1SG  
'my houses'
- c. a ház-a-Ø  
the house-PX-3SG  
'his house'
- d. a ház-a-i-Ø  
the house-PX-PL.PX-3SG  
'his houses'
- (41) a. a hajó-Ø-i-Ø  
the ship-(PX)-PL.PX-3SG  
'his ships'
- b. a hajó-Ø-i-k  
the ship-(PX)-PL.PX-3PL  
'their ships'

(41a,b) illustrate a final exception not shown so far. After stems ending in vowels, if the possessive plural marker is present, the possessive marker is Ø, which leads Kiefer (2003: 205) to suggesting that there are two Ø-morphemes in (41a), one being the possessive marker, the other marking third person singular.<sup>3</sup>

Rebrus (2000: 928ff., 945) also reaches the conclusion that in possessive constructions where the possessum itself is in plural, there are three morphemes attached to the noun.

The structures presented in (40) and (41), as well as Table 1.8 resemble the analysis of objective forms presented above. In particular, the possessive suffixes shown in Table 1.8 are analogous to Rebrus' analysis of person/number suffixes in verb forms. In brief, if we take objective forms and possessive forms to include separate objective and possessive suffixes, respectively, the morphological similarities are striking. This might constitute an argument for a separate marker in objective forms.

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<sup>3</sup>One could suggest that in (40a), the possessive marker appears as *-a-* before the person suffix. However, the vowel preceding first person *-m* can also appear as *o*, *ö*, because of vowel harmony. The possessive marker never shows this alternation.

### 1.4.3 A few more notes on objective forms

There is another object-related morpheme that I have not mentioned so far. If the subject is first person singular and the object is second person singular, there is a special morpheme *-lAk* that expresses exactly this configuration, see (42).

- (42) a. lát-lak  
           see-1SG/2.OBJ  
           ‘I see you’  
       b. lát-ta-lak  
           see-PAST-1SG/2.OBJ  
           ‘I saw you’

This segmentation is not definitive, Bartos (1999: 91f.) states that it is possible that this suffix is not a single morpheme, but composed of an object-related suffix *-l-* and the subject agreement suffix *-Ak* (note that *-l* is also the second person subject agreement suffix in the subjective conjugation). It is not straightforward to decide which analysis is better in this case.

Coppock and Wechsler (2011: 7) argue that “the combined object marker and subject marker might as well be treated as a single morpheme syntactically.” As reasons for this, they state that “[t]he presence of an object marker also changes the shape of the putative subject marker, and not in any phonologically predictable way.” (Coppock and Wechsler 2011: 6f.), referring to the relatively intransparent relation between subjective and objective forms like *-Unk* and *-jUk* (but see Havas 2004), as well as *-(a)nAk* and *-jâk*. It is clear that in their view, these suffixes are fused subject and object markers (cf. the different approaches by Kiefer and Rebrus, as shown in Tables 1.5, 1.6 and 1.7 above).

Coppock and Wechsler are also interested in the morphological status of the verbal endings, e.g. whether it is reasonable to analyze them as clitics (as suggested by den Dikken 2006). They reject this view based on various arguments, mentioning among others the usual invariability of clitics across tenses and moods in languages with more obvious clitics (e.g. Spanish), which does not hold for Hungarian verbal suffixes, except maybe for the element *-lAk* mentioned above (see Coppock and Wechsler 2011: 7 for further discussion and references).

### 1.4.4 Markedness and the two conjugations

While the discussion above might seem overly detailed, it is important to illustrate different perspectives on Hungarian verb morphology. In this section, I will pick up these different approaches and relate them to the question of markedness and the two verb paradigms. The discussion of markedness *per se* is mostly based on Moravcsik (1988), who in turn bases some of her assumptions on Greenberg (1966). Among other phenomena,

## 1 The phenomenon

Moravcsik uses Hungarian verb morphology to illustrate certain aspects of markedness and agreement.

Moravcsik (1988: 91) suggests that the basic relation between a pair of unmarked and marked elements is a kind of asymmetry: “the two are not on a par.” Grouping Greenberg’s (1966) criteria, she suggests that there are three major properties that can be used to characterize and test structures regarding their level of markedness.

**Syntagmatic complexity** refers to structural complexity: “complexity of meaning, and complexity of syntactic, morphological, or phonetic form.” (Moravcsik 1988: 91). This means that marked forms are predicted to have more structure than unmarked forms.

**Paradigmatic complexity** concerns the structure of a paradigm, e.g., the amount of syncretism in a certain verbal or nominal paradigm. In several languages, marked categories show more syncretism in their paradigms, i.e., they are paradigmatically less complex (cf. Greenberg 1966: 27).

**Range of use** subsumes several kinds of frequency of a certain construction, e.g., the use of an unmarked construction opposed to the use of a marked construction. Moravcsik also mentions that implicational universals, i.e., well-known typological generalizations like “if a language has X, it also has Y” (Moravcsik 1988: 91) fall into this category.

Moravcsik further states that this “theory also proposes that there is consistency across the three general parameters” (Moravcsik 1988: 92). This means that if we apply these characteristics to a certain phenomenon, our expectation is that in a certain opposition, if an element is unmarked according to one of the above parameters, it will be unmarked according to the other parameters, as well. *Mutatis mutandis*, the same should hold for the marked member of the opposition. So how do the Hungarian conjugations fare with respect to these properties?

Moravcsik refers to the phenomenon in question as verb agreement. This is unquestionably the correct term for subject-verb agreement, but it has been challenged whether the structure I am calling the objective conjugation is an instance of object-verb agreement (see Coppock and Wechsler 2011: 3 and Corbett 2006: 91ff. for discussion). For ease of illustration, I will adopt Moravcsik’s point of view for now.

Since agreement usually involves an agreement morpheme, Moravcsik argues that syntagmatic and paradigmatic complexity automatically hold for agreement, since a form with an extra morpheme is structurally more complex than one without it and that such a structure constitutes a “particular subclassification for a constituent” (Moravcsik 1988: 93). It is important to keep in mind that agreement happens between two elements, a controller and a target (e.g., a subject and a verb agreeing with it). Usually, the target has additional structure, one or several agreement morphemes. Given this, it is clear that

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the property of syntagmatic complexity holds of the target (but not necessarily of the controller). What about paradigmatic complexity?

It is not clear to me whether I understand Moravcsik (1988: 93f.) correctly in this regard. With respect to controllers, she claims that since they are not marked in agreement constructions, the whole agreement structure (controller *and* target) represents

“increased structure without any increase in subclassification—i.e., as a symptom of markedness. The prediction is, therefore, that agreements should be favored for controllers that are marked other ways as well (structurally more complex, paradigmatically less elaborate, and less widely distributed) over potential controllers that are unmarked (simpler in structure, richer in subcategories, and more widely used).” (Moravcsik 1988: 94)

This quotation seems to be ambiguous. What Moravcsik means is that agreement between a verb and an object usually appears when the object exhibits some properties of markedness: in many languages (presumably also in Hungarian), these properties are topicality, definiteness, animacy, etc. (cf. Moravcsik 1988: 95 for examples and references; see also Givón 1976, Bresnan and Mchombo 1987). However, it seems to me that the definition above would also exclude subjects from the list of usual controllers — which is not what we find in the world’s languages.

On the other hand, regarding targets, Moravcsik suggests that “[s]ince increased paradigmatic complexity is the hallmark of unmarked terms, markedness theory predicts that unmarked should preferentially agree over marked ones” (Moravcsik 1988: 94). She illustrates this by referring to English tense paradigms; in the unmarked present tense, there is agreement (third person singular -s), whereas in the marked past tense, all forms are syncretic. The present tense is therefore paradigmatically more complex and less marked.

To make things clearer, let me illustrate Moravcsik’s analysis of the Hungarian objective conjugation. As I mentioned, Moravcsik (1988: 99) regards the objective conjugation as an instance of verb-object agreement. As for the syntagmatic complexity of this phenomenon, she suggests that a morpheme that expresses a marked kind of feature (let us assume that it is definiteness in the relevant Hungarian phenomena) is thus (semantically) more marked than an agreement morpheme expressing a less marked feature (e.g., indefiniteness). Note that there is independent evidence for definiteness being more marked than indefiniteness, e.g. the criteria of structural complexity, etc. If we accept this assumption, it follows that Hungarian objective verb forms are more marked than subjective verb forms (this being an instance of complexity of meaning).

Moravcsik argues that there is even more evidence. She writes, “[n]otice, first, that four of the suffixes in the definite paradigm are bimorphemic (i.e., syntagmatically complex): they show the recurrent *j* marker” (Moravcsik 1988: 99). Recall that in the present tense, the third singular and all plural objective forms include this marker (cf. Table 1.6). Moravcsik further correctly states that this kind of morphological complexity is missing

from the subjective paradigm and that there is a maximal opposition in the third person singular, present tense: unmarked (zero-marked) subjective forms vs. marked objective forms, e.g. *lát* ‘s/he sees’ vs. *lát-ja* ‘s/he sees (it)’ (cf. Moravcsik 1988: 100).

Also, the subjective paradigm is claimed (ibid.) to be more widespread, since it occurs without objects (intransitive verbs) as well as with objects (transitive verbs with objects that do not trigger the objective conjugation). Additionally, there is a third type of conjugation in Hungarian, the so called *-ik*-verbs; since these do not take part in the subjective/objective alternation, they constitute a further argument for the subjective conjugation being unmarked (the *-ik*-verbs have not been relevant so far; I will mention them briefly in the next section).

### 1.4.5 Summary

A few notes can be made about Moravcsik’s assumptions. As shown in the previous sections, there are several objective forms that include a definiteness or object marker that can be shown to influence morphophonological structure in regular ways. Regarding these forms as more marked than their subjective counterparts seems reasonable. However, these alternations do not appear across the whole paradigm. This is not necessarily unexpected, since Moravcsik argues that syncretism increases in less used paradigms — this might be valid for the subjunctive mood in Hungarian, where all plural forms have identical subjective and objective forms.

I want to sketch the big picture briefly in order to illustrate how objective forms with an overt marker are distributed with respect to those forms that lack an overt marker. Table 1.9 contrasts subjective and objective forms from the relevant 4 paradigms for two verbs to illustrate the effects of vowel harmony. I will not focus on morphophonological alternations that only influence the stem.

Table 1.9 is organized as follows. The present and past tenses and the conditional and subjunctive moods have synthetic forms. 4 tenses/moods and 6 person/number forms equal 24 pairs of verb forms. The verbs used are *oszt* ‘divide’ and *kér* ‘want, ask for’.<sup>4</sup> Subjective and objective forms are contrasted in each cell, the subjective form preceding the objective form. Where it is present, the object marker is set in bold face and the cells that include an objective form with this marker have a gray background.

This makes it easy to assess the distribution of the object marker. In the 24 objective forms, it appears in 11, i.e., roughly half of the paradigm. It is always present in the third person singular, and it is also mostly present in second and third person plural forms. First and second singular forms never have an object marker, their suffixes are fused across the paradigm.

With respect to the discussion of markedness above, the distribution of the object marker suggests that morphological complexity is not necessarily a crucial property of

<sup>4</sup>The reason I included both verbs in Table 1.9 is that they illustrate vowel harmony as well as different morphophonological processes; together they provide a fuller picture of the suffixes in both paradigms.

## 1.4 The morphology of the subjective and objective paradigms

Present tense	First	Second	Third
Singular	oszt-ok : oszt-om kér-ek : kér-em	oszt-asz : oszt-od kér-sz : kér-ed	oszt : oszt- <b>ja</b> kér : kér- <b>i</b>
Plural	oszt-unk : oszt-j-ük kér-ünk : kér-j-ük	oszt-otok : oszt- <b>játok</b> kér-tek : kér- <b>i-tek</b>	oszt-anak : oszt- <b>ják</b> kér-nek : kér- <b>i-k</b>
Past tense	First	Second	Third
Singular	oszt-ott-am kér-t-em	oszt-ott-ál : oszt-ott-ad kér-t-él : kér-t-ed	oszt-ott : oszt-ott- <b>a</b> kér-t : kér-t- <b>e</b>
Plural	oszt-ott-unk : oszt-ott-ük kér-t-ünk : kér-t-ük	oszt-ott-atok : oszt-ott- <b>a-atok</b> kér-t-etek : kér-t- <b>e-etek</b>	oszt-ott-ak : oszt-ott- <b>a-ak</b> kér-t-ek : kér-t- <b>e-ek</b>
Conditional mood	First	Second	Third
Singular	oszt-ane-ek : oszt-ana-am kér-ne-ek : kér-ne-em	oszt-ana-al : oszt-ana-am kér-ne-el : kér-ne-ed	oszt-ana : oszt-ana- <b>a</b> kér-ne : kér-ne- <b>e</b>
Plural	oszt-aná-nk kér-né-nk	oszt-ana-atok kér-ne-etek	oszt-ana-anak kér-ne-enek
Subjunctive mood	First	Second	Third
Singular	ossz-ak : ossz-am kér-j-ek : kér-j-em	ossz-ál : ossz-d kér-j-él : kér-d	ossz-on : ossz- <b>a</b> kér-j-en : kér-j- <b>e</b>
Plural	ossz-unk : ossz-ük kér-j-ünk : kér-j-ük	ossz-atok : ossz- <b>a-atok</b> kér-j-etek : kér-j- <b>e-etek</b>	ossz-anak : ossz- <b>a-ak</b> kér-j-enek : kér-j- <b>e-ek</b>

Table 1.9.: Subjective and objective paradigms: cells with forms including object markers (in bold) are gray

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objective forms, since portmanteau suffixes expressing person/number and the relation to the object on their own account for the other half of the objective paradigm. The suffixes in (43), for example, do not show any clear contrast in complexity while making up a substantial part of the paradigm (8 first and second person forms (combined) plus at least 2 first person plural forms).

- (43)
- |    |                                 |                                     |
|----|---------------------------------|-------------------------------------|
| a. | - <i>Vk</i> vs. - <i>Vm</i>     | (first singular)                    |
| b. | - <i>sz/-Vl</i> vs. - <i>Vd</i> | (present, second singular)          |
| c. | - <i>Ál</i> vs. - <i>Ad</i>     | (second singular)                   |
| d. | - <i>Unk</i> vs. - <i>Uk</i>    | (past and imperative, first plural) |

To summarize: I have presented different analyses regarding the morphological structure of the Hungarian conjugations. I tried to show that there is an object marker in roughly half of the objective forms, following in part the analysis of Rebrus (2000). Regarding the markedness of the objective conjugation with respect to the subjective conjugation, Moravcsik (1988) argues that the former fits conforms to several criteria attributed to markedness. With respect to the morphological complexity, however, the conclusion seems to be that only those objective forms are clearly more complex morphologically than their subjective counterparts that include the definiteness marker. I will pick up this discussion in Chapter 3.

In the rest of this thesis, for ease of illustration, I will not always gloss the object marker as a separate morpheme, so *oszt-ott-a* ‘s/he divided’ will be glossed as *divide-PAST-3SG.OBJ*. When relevant, I will refer back to the discussion in this section.

## 1.5 Historical Development

I will briefly sketch what the development of the subjective and objective conjugation might have been like. The discussion will be based on Havas (2004) who suggests the crucial development resulting in the separation of the *ik-*, the subjective and the objective conjugations was the spreading of medialisation in the Hungarian verbal system at an earlier stage of the language’s history. I also mention suggestions by Coppock and Wechsler (2010a, 2011) regarding the development of object-related verb morphology that originates in pronouns.

Havas (2004) summarizes several proposals that have been put forward to explain the Hungarian verbal system of today, only to reject them. I will base my overview heavily on his work; the purpose of this section is not to propose an improved historical analysis, but to sketch what the history of Hungarian verbs might look like. The following list is based on Havas (2004: 106-117) who also gives further references.

**Agglutination hypothesis** This view holds that objective verb forms arose quite regularly with both an object agreement suffix and a subject agreement suffix attached



to the verb stem. This structure is seen in the present tense in some forms (*vár-já-tok*), but as seen above, not in others. These other forms pose several problems for this view: what happened to the lost morphemes? Why did some forms lose the object agreement morpheme, while others lost the subject agreement suffix? Havas writes that this view is “no longer held by anyone” (Havas 2004: 106) and rejects it.

**Possessive suffix hypothesis** Havas states that there are two versions of this hypothesis, both based on the idea that the verbal suffixes originate quite directly from possessive suffixes.

1. Semantic version: The semantic version of this hypothesis claims that today’s objective forms were at one point nominalized verb forms consisting of a stem and a possessive suffix, i.e., a form like *vár-om* ‘I am waiting (for it)’ originally meant ‘my waiting’. Havas cites as arguments against this view that it is not very plausible semantically and that the morphological distinction between verbs and nouns is old enough to make possessivized verb forms quite unrealistic.
2. Syntactic version: In this case, it is claimed that possessive suffixes did not attach to a stem as above, but rather to a participle, leading to structures of the following form (Havas 2004: 107):

- (44)    *hal/halam* (a)    *nő*        *főzte*  
           (my) fish    (the) woman cooked  
           ‘The woman cooked my fish.’

*főzte* in (44) is originally a participle, so the original meaning of this structure would have been something like ‘The fish is the woman’s cooking.’ which “seems rather eccentric even for Pre-Hungarian and, since it predicates an acquired trait of the subject, it is [...] highly restricted” (Havas 2004: 107). This is to suggest that the assumed original meaning is less plausible with verbs like *see*, cf. ‘the fish is the woman’s seeing’ (ibid.). There are a few more unclear aspects to this hypothesis: Havas argues that it does not explain any restriction to definiteness, it would have arisen in the past and spread to the present tense, and finally, there are in today’s language, possessive participles and the corresponding verb forms differ in structure.

**Non-possessive Px-hypothesis** This idea refers to the a slightly different use of possessive suffixes, viz. not that of marking a noun as possessed, but rather as definite. The verbal suffixes are then claimed to have marked the definiteness of the subject which was later reanalysed as a marking of the definiteness of the object. Havas opposes to this on the grounds that marking the definiteness of the subject does not

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make sense in the first and second persons. He also claims that “we would expect [the suffix] to turn up in the subjective conjugation too, since the subject can also be definite” (Havas 2004: 108f.). I am not sure that this is the case; reanalysing the suffix *-ja* as an object marker could relieve it from the function of marking the subject. However, this does not necessarily make this more plausible for other persons.

**Depassivization hypothesis** This hypothesis claims that objective forms used to have passive meaning, i.e., *vár-já* (the final long vowel was shortened later) could mean ‘he is waited for’ originally (cf. Havas 2004: 109). By further expanding such a form with a subject agreement suffix, one could arrive at something like ‘he is waited for by you’ resulting in ‘you are waiting for him’. Havas states that this is “either self-contradictory or is based on unproved premises” (Havas 2004: 109). The problem is that it is not clear why passive forms should get another suffix referencing the agent. There is also no evidence for a passive meaning in such verb forms at an earlier stage of Hungarian.

**Object pronoun hypothesis** One version of this view suggests that a third person pronoun referring to an object was agglutinated to the verb, making the presence of the object optional. Havas states that this idea only works for the third person, since those endings could not have referenced an object, since they clearly reference first and second person subjects. A second version takes the agglutinated pronouns to have had an accusative case ending. This hypothesis also claims that all forms (not only third person) agglutinated said pronoun, so Havas again mentions the lack of explanation for the disappearance of this marker from first and second persons.

**Parallel accusative hypothesis** The accusative suffix *-t* is a crucial part of this hypothesis. The basic assumption is that case marking on direct objects was originally only available for definite objects and that the contrast between subjective and objective conjugation arose somehow in parallel to the spread of case marking to all direct objects, the objective forms taking over the role of the accusative for marking definite direct objects, while new forms for the subjective conjugation developed. Havas notes that the exact timing and causality of this development is hard to describe, and he draws the conclusion that the development of the two conjugations “cannot have been related in any way to the emergence of the *-t* suffix and the changes in the range of its use” (Havas 2004: 114).

**No suffix hypothesis** This hypothesis claims that the original opposition between subjective and objective conjugation was that the former had no suffixes at all, while the latter had suffixes originating from personal pronouns. Several points can be raised in objection to this idea: the Hungarian first and second person suffixes can be shown to be etymologically related to pronouns in other Finno-Ugric languages,

where suffixless forms are not common. So Hungarian would have lost its suffixes, only to reattach new ones later (cf. Havas 2004: 116 for further discussion).

Havas puts forth his own proposal, which I will also summarize briefly. What seems to be clear to most researchers is that the element *-jA* originates in a third person pronoun that was attached to the verb and referred to an object and not a subject. Havas (2004: 119) also accepts this. His main point is, however, that different things happened in the first and second person on the one hand, and the third person on the other. He suggests that the origin of first and second person suffixes lies in the rise of a *medial conjugation*, viz. the *-ik*-verbs briefly mentioned above. Havas describes medial verbs as those verbs where the event they denote “does not transcend the limits of the grammatical subject” (Havas 2004: 123). He gives examples from Hungarian like *ugrik* ‘jump’, *mosakodik* ‘wash himself’, *szédül* ‘feel dizzy’, *fázik* ‘feel/be cold’ (ibid.) and other languages like French *se fâcher* ‘be/get angry’, *se battre* ‘fight’ (Havas 2004: 125), stressing that though these forms resemble reflexives, their meaning is not ‘anger oneself’ and ‘beat oneself’, respectively.

In Hungarian, many of these verbs have a third person singular ending in *-ik*. Recall that third person singular is usually unmarked in the subjective conjugation. This ending gives the *-ik*-verbs their name. While no longer very productive, there are many verbs in this class that have a clear middle meaning (cf. Havas 2004: 126).

Havas’ crucial claim is that it was this medial meaning that has spread from the originally intransitive class of medial verbs to transitive verbs in some uses. He gives the following examples (Havas 2004: 129).<sup>5</sup>

- (45) a. A ló meg-esz-i a zab-ot.  
           the horse PRF-eat-3SG.OBJ the oat-ACC  
           ‘The horse eats the oats.’  
       b. A ló zab-ot esz-ik.  
           the horse oat-ACC eat-3SG.IK  
           ‘The horse eats oats.’

Both of these forms are transitive, but Havas claims that (45b) can still have a medial meaning, since he states that “[i]n its most natural use the sentence [(45b)] is equivalent in meaning to ‘horses are oat-eating animals’” (Havas 2004: 129).

### 1.5.1 Alternative views

Coppock and Wechsler (2010a) compare similar developments in several Uralic languages. Summarizing their account briefly, they also accept that objective suffixes were originally incorporated pronouns (though not focusing on the morphological intricacies of this claim) that lost some of their features over time. The first crucial step from pronoun

<sup>5</sup>I have slight changed Havas’ glosses to be consistent with mine, replacing DEF with OBJ.

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to verbal suffix or agreement marker is the loss of reference. This means that subject agreement suffixes can usually co-occur with the subject, since they are no longer pronouns with their own reference, but agreement markers. An incorporated pronoun might not tolerate an overt object noun phrase in the same clause, however. A famous example is the Bantu language Chicheŵa, as discussed by Bresnan and Mchombo (1987). In time, however, incorporated pronouns may use some of their features that restrict the co-occurrence of object noun phrases. Givón (1976) cites the Bantu languages Swahili and Rwanda, where the original incorporated pronoun has developed into a marker of the definiteness of the object. Coppock and Wechsler (2010a) suggest that, in addition, the object markers can lose further restrictive features, like person features. I will take up the discussion of Coppock and Wechsler (2010a) later (cf. Sections 2.4.2 and 4.1.2).

### 1.5.2 Conclusion

The point of this section was to sketch a few possible courses of developments of the Hungarian objective conjugation (more precisely, the development of the contrast between subjective and objective conjugation). What is generally accepted is that the origin of the object-related element *-jA* is pronominal. What happened later and how the restriction that objective forms co-occur with definite objects came about is still a matter of debate that I will pick up below.

## 1.6 Summary

In this chapter, I have introduced the phenomenon that marks the departure for this thesis. I introduced the relevant ingredients for the following thorough review of explanations for Hungarian subjective and objective conjugations. These include the structure of Hungarian noun phrases, the triggers of each respective conjugation and the morphological structure and history of the conjugations.

To briefly summarize the crucial points that I will reference in the chapters to come, see the following list.

**The noun phrase** The Hungarian noun phrase is an important part of an analysis of the subjective and objective conjugations. I have introduced the basic order and structure of the noun phrase and mentioned the structure of possessive constructions. Recall that Hungarian does not have possessive pronouns, but rather possessive suffixes appearing on the possessum.

The (optional) possessor can appear in the nominative and, in a slightly more external position, in the dative (marked *-nak/-nek*). While these two constructions do not differ in their meaning, they are structurally different. Possessive suffixes have been shown to resemble verbal suffixes in some cases.

**Triggers** I have given an overview of the types of direct objects that trigger the subjunctive and the objective conjugation, respectively. I will elaborate on these in the next chapter, giving further examples and embedding them in the theoretical frameworks assumed by various researchers.

**Morphological structure** Finally, I have discussed the morphological structure of Hungarian verb forms, focusing on several aspects. One of these was the exact structure of Hungarian verbal suffixes. I tried to show that while some forms in the present tense look like they have separate morphemes for subject agreement and object reference, this is not necessarily the case in every tense and mood. Finally, I have referenced approaches to the history of the Hungarian verbal system, showing that the most common assumption is that parts of the objective paradigm originate the incorporation of a pronoun during an earlier stage of Hungarian that predates the historical records of the language.



## 2 Approaches to Hungarian object agreement

### 2.1 Introduction

In this chapter, I will compare two approaches to the subjective and objective conjugations that have been proposed in recent years. The first of these is represented by Bartos (1999, 2001) and É. Kiss (2002, 2003a). It is couched in terms of modern Generative Syntax, more precisely in a framework usually referred to as Minimalism (cf. Chomsky 1995, Radford 1997, Hornstein et al. 2005). Bartos and É. Kiss suggest that the Hungarian verb always agrees with its object. In the subjective conjugation, the agreement morpheme is  $\emptyset$ , while in the objective conjugation, they argue, object agreement is realized as the *-ja/-i-* marker in the present tense, which has been discussed in detail in Chapter 1. The crucial property of direct object noun phrases is their phrasal category. Bartos and É. Kiss argue that NPs and other non-DPs do not, while DPs do trigger the objective conjugation (see the following section for a discussion of the technical terms).

A second approach to the phenomenon in question is proposed by Coppock and Wechsler (2011, 2010a). Using a different theoretical framework, they argue that the appearance of the objective conjugation is triggered by a morphological feature, [DEF] that is present on the direct object in some cases. They claim that it is usually predictable from the form of the object whether it has this feature or not.

The structure of this chapter is as follows. In the next section, I will introduce some important technical terms and the frameworks that are necessary to discuss the different approaches to our topic. Following this exposition, I will sketch each of the theories mentioned above and apply them to the list of triggers that were discussed in Chapter 1, adding a few interesting and maybe problematic cases. The final section of this will include the comparison of the proposals and a discussion of their advantages, disadvantages and problems.

## 2.2 Theoretical background

Before diving into the technicalities of the generative syntactic framework I will introduce here, I have to make a few comments about common assumptions underlying the syntactic theories I am about to present.

The framework that Bartos and É. Kiss work in, a version of the Minimalist framework, is a descendant of earlier generative syntactic theories. These frameworks, which have been called Government and Binding Theory (GB) and Principles and Parameters (P&P) theory, share some crucial assumptions that I will quickly discuss. One of the most important ideas of these theories is that language is something that children are born to learn, not just because children hear language, but because they are born with some kind of language faculty. This hypothesis is not proven, but it is taken for granted in a large body of work. The structure of this hypothetically inborn knowledge is what much of the research in generative grammar has strived to describe.

The assumption that all children are born with the ability to learn any language they are exposed to has led to the assumption that the faculty of language might contain a specification of what the grammars of human, natural languages might be like. This specification has been called Universal Grammar (UG). This concept is understood to provide the rules that underlie all known languages, with the very strong implication that all human languages are basically realizations of some (or quite many) grammatical concepts.

This does not mean that all languages are the same, because, obviously, they are not. The proposal rather states that languages do not vary arbitrarily, but that all variation is due to some (or, again, quite many) principles that govern the possible variations human languages can exhibit. The Principles and Parameters framework gets its name from these principles. One of its crucial assumptions is that UG provides principles that underlie every language. Some of these might be what are often called *language universals*. But since languages do show variation and there are not only minor differences, principles have parameters that can be set differently in different languages. One example is the so called *null-subject parameter*. Some languages require that the subject of a finite sentence be present. German and English are such languages. Hungarian, on the other hand, does not share this requirement.

Whether the reader accepts this hypothesis or not, in those frameworks that build on these assumptions, it is possible to benefit from them by making the argument that if languages show similar phenomena, this is due to the fact that these phenomena have the same underlying reasons or triggers. This enormously helps the building of cross-linguistic generalizations and UG is in fact often invoked in the comparison of languages (Pollock 1989 is good a example; I will come back to it).

Of course, not all linguists accept these hypotheses and there are different frameworks that do not make these strong conclusions explicit. However, their discussion is essential



for the following sections, so I will introduce some concepts of the theories in questions, starting with some aspects of the Principles and Parameters theory as discussed by Roberts (1997), on which much of the discussion is based.

### 2.2.1 Phrase structure and categories

One basic assumption of generative grammar is that sentences (or clauses) are made up of smaller units, phrases. In the early period of generative syntax, phrases were the result of so called *phrase structure rules*. A language was assumed to be made up of a set of such rules that define the possible structures in that language. In this sense, the grammar was generative, since it should generate those structures (and only those structures) that are found in a certain language. For various reasons (see Roberts 1997: 10ff.), phrase structure rules were later replaced by a different idea of phrase structure, *X-bar theory* (also *X'*). Chomsky (1981: 5) writes that “[t]he rules of the categorial component meet some variety of X-bar theory.” This means that every category in syntax — i.e., roughly, parts of speech — follows the principles of this theory of phrase structure. To put it simply: syntactic categories are phrases (called *projections*) and these phrases adhere to certain structural rules. A noun phrase of such structure is referred to an NP, a verb phrase to a VP, etc.

The structure and the exact principles underlying X-bar theory have changed since Roberts’s (1997) presentation, but the concept of phrases is still present. Another crucial aspect of grammar is what kinds of phrases there are. As I suggested above, the parts of speech, i.e., at least nouns, verbs, adjectives, etc., constitute or project phrases, giving us NPs, VPs, APs. However, there are not only these categories (often called *lexical*; also “content words”), but also so called *functional* categories that include “grammatical words”, a distinction that is similar to the distinction between open classes of words (lexical) and closed classes of words (grammatical or functional, cf. Roberts 1997: 14). One aspect of this distinction is that the meaning of lexical and the meaning of functional categories can denote real things in this world (also abstract things), while functional or grammatical categories rather specify grammatical meanings (for example tense on verbs).

Sentences are made up of combinations of lexical and functional categories, each of these projecting their respective phrases. There are several functional categories, including “Determiners, Tense, Negation and Agreement (of various types).” (Roberts 1997: 17). For the present discussion, the functional categories of determiners and agreement will be the most important, since they figure very prominently in some analyses of Hungarian subjective and objective conjugations. As should be clear from the list quoted above, the functional categories mentioned do not combine freely with every lexical category, it is rather the case that “functional categories usually relate to a particular lexical category.” (Roberts 1997: 17). Tense is a grammatical concept that is mostly relevant for verbs, but not so much for nouns. On the other hand, determiners and the meaning that

## 2 Approaches to Hungarian object agreement

they convey, indefiniteness and definiteness, for example, are functional items that are clearly relevant for nouns. Roberts (1997: 17) suggests that since nouns do not encode the distinction between definite and indefinite on their own, a separate functional category might be assumed to take over this role. Evidence for this is easy to find.

- (46)
- a. kert  
    ‘garden’
  - b. egy kert  
    ‘a garden’
  - c. a kert  
    ‘the garden’
  - d. ez a kert  
    this a garden  
    ‘this garden’

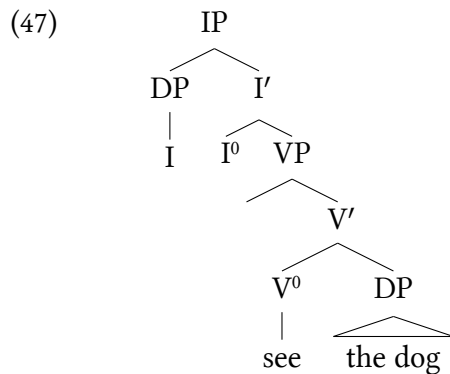
The above examples all differ in meaning, but this meaning is not part of the noun itself, but is due to the absence or presence of different kinds of determiners. Determiners like the one in (46b) are sometimes called indefinite articles, but they often resemble simple numerals (as we will see later). The determiner in (46c) is a definite article, etc. It is clear that there is some grammatical element that can combine with nouns to change the meaning of the structure in question. The determiner does not, however, change the lexical meaning of the noun, but it adds grammatical meaning. Roberts (1997: 18) mentions that the behavior of such categories can differ across languages in various ways. While Hungarian does have articles, as do English and German, for example, Latin only has demonstratives, but no definite or indefinite articles. This might be another instance of parametric variation.

As suggested above, phrase structure is taken to follow strict rules that are part of X-bar theory and it has been proposed that functional categories have the same phrase structure as lexical categories. If we were to accept the reality of a grammatical category D (for determiner), as we accept the reality of a lexical category V (for verb), we could conclude that D projects a category DP (cf. Roberts 1997: 17 and discussion below).

I mentioned that the assumptions underlying X-bar theory have changed over time. Roberts (1997: 19) cites the following, widely accepted basic ingredients. A phrase is made up of three levels of projections, a *maximal projection* (ending in P for phrase), an intermediate projection (expressed by ‘, the eponymous ‘bar’) and a head, sometimes labeled with <sup>0</sup> (for ‘zero’). An NP or noun phrase, consists of N<sup>0</sup>, N’ and NP, while DPs are made up of D<sup>0</sup>, D’ and DP. A variable over categories, designated X, gives X-bar theory its name.

### 2.2.2 Clause structure and evidence for functional categories

Clause structure is the term referring to the syntactic structure of a sentence or a clause, i.e., a structure made up of several phrases of the type discussed above. Clause structure includes both lexical and functional categories, a crucial element being the (preliminarily so called) IP or inflectional phrase. This functional category is related to verbal inflection, e.g., tense. Given our assumptions so far, a simple sentence like *I see the dog.* has the following structure:



An important property of the structure in (47) is that the (functional) category I projects a phrase, just like the lexical categories. This basic structure that has been assumed to hold across languages has been modified over time. I want to sketch a few arguments that have led researchers to propose more functional structure than present in (47), without going into too much detail.

Jean-Yves Pollock (1989) suggests, based on a comparative study of French and English, that structure (47) does not suffice to account for the structure of sentences even in these two languages. The problem is that English and French verbs are in different positions in the clause when adverbs are present. Pollock's famous examples illustrate this:

- (48)
- a. \*John kisses often Mary.
  - b. Jean embrasse souvent Marie.  
J. kisses often M.  
'John often kisses Mary.'
  - c. John often kisses Mary.
  - d. \*Jean souvent embrasse Marie.
- (Pollock 1989: 367)

In English, the main verb follows the adjective *often*, while in French, the main verb precedes it. The other possibilities lead to ungrammatical sentences (marked with an asterisk). The position of main verbs in French is thus higher than in English (i.e., I⁰ in French). Pollock gives additional data involving infinitives and negation and goes on to argue that a further position is necessary to explain certain word orders in French.

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Pollock (1989) thus assumes that there is a further functional category called Agr that provides a location for these verbs. (This hypothesis has been called the ‘Split-Infl’ hypothesis, cf. Roberts 1997: 41ff. for discussion.) The name Agr should be reminiscent of the term ‘agreement’: Pollock (1989) also assumes that what I have called IP above is rather made up of two functional categories, TP (for tense) and AgrP (for agreement). Both of these categories are relevant for verbs, since verbs have tense and often show agreement with some of their arguments.

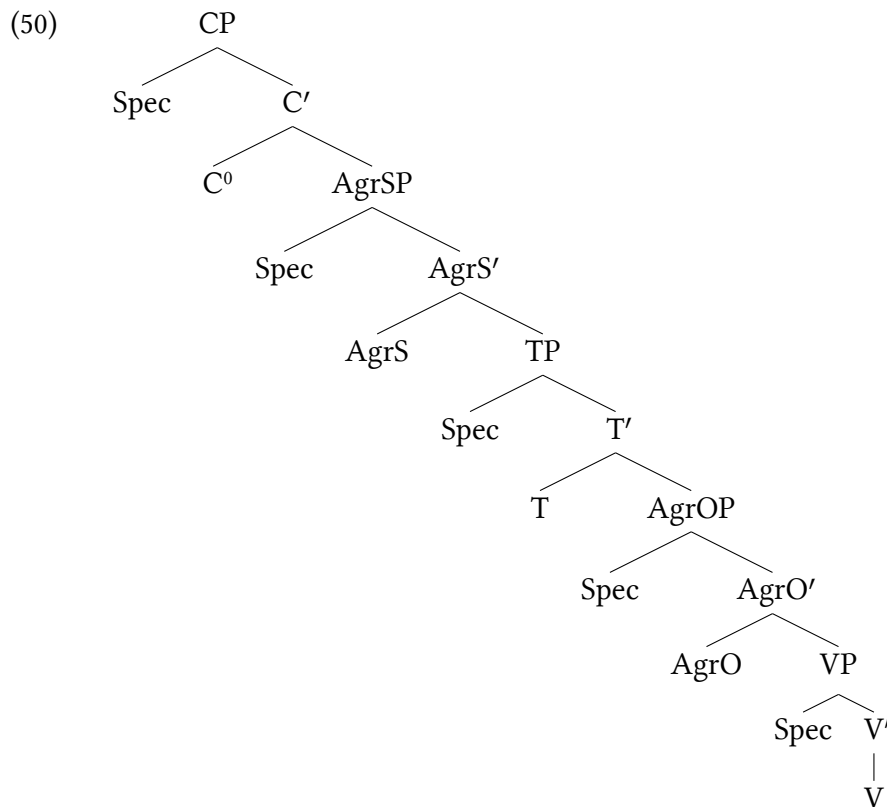
Pollock’s (1989) paper illustrates what kind of evidence linguists propose for functional categories. Pollock gives evidence based on word order and morphology. The morphological side of his argument is quite complex and involves the “richness” of agreement in French (cf. Pollock 1989: 385f.) but syntactic and morphological data have lead other researchers to suggest the existence of other categories. Roberts (1997: 43) credits the linguist Richard Kayne with the suggestion that there might another agreement projection, related to the object. The evidence for this projection is based on the agreement properties of French past participles. Roberts gives the following example:

- (49) a. Jean les                    a    peint-es.  
         J.    them.FEM.PL has painted-FEM.PL  
         ‘John has painted them.’ (Roberts 1997: 43)

(49) illustrates that past participles in French sometimes agree with their objects; on of the cases where this happens is when there is an object clitic instead of a full NP. Roberts writes that since subject-verb agreement involves an agreement projection, “we can unify participle agreement with this by assuming that there is a further AgrP lower down in the clause, and that fronted categories pass through this position, giving rise to participle agreement in a Spec-head configuration.” (Roberts 1997: 43). The fronted element referred to is the clitic *les* in (49). Roberts (1997: *ibid.*) thus suggests the clause structure shown in (50) (I’ve ignored evidence for CP, since it is not relevant for our purposes).

Roberts states that Pollock’s proposal gave rise to “a consequent dramatic elaboration of clause structure” (Roberts 1997: 42) and “to an enormous amount of research on basic clause structure and functional categories.” (Roberts 1997: 44).

In fact, this kind of syntactic and morphological evidence has lead several researchers to propose all kinds of functional categories in the clause to accommodate morphology. Kiefer (2000a: 58f.) and Stump (1998: 36ff.) discuss how Pollock’s proposals have led to a theory of morphology that states that inflection is movement of a stem through functional categories in the syntax. This means that in a structure like (50) (p. 39), a verb stem is generated in the position V and then moves through AgrO, T and AgrS, respectively, to pick up inflectional morphology related to these categories. Stump (1998: 37) writes that “[c]ompelling reasons for rejecting this approach to inflectional morphology are abundant.” One of them is that the order of affixes in verb morphology is too diverse in the languages of the world for a structure like (50) to be definitive (cf. Stump 1998: *ibid.*).



While this might weaken morphological evidence for functional projections, Stump suggests that purely syntactic reasons can still count as arguments for the existence of functional projections (cf. Stump 1998: 38). This syntactic approach has been argued for by Chomsky (1995: Chapter 3, 195) and Radford (1997). Later developments lead some generative linguists to do away with agreement projections, e.g. in Chomsky (1995: Chapter 4), Radford (2004), Hornstein et al. (2005), leading to alternative conceptions of clause structure that need not concern us here.

### 2.2.3 Evidence for DP

The discussion of evidence for functional categories in the noun phrase goes together well with a discussion of Hungarian, since this language has inspired much research in this regard: see among others Szabolcsi (1983, 1987, 1994) and Abney (1987) who all mention Hungarian data relating to the structure and the properties of noun phrases. We have seen that structural (e.g. word order) considerations are relevant, as are morphological aspects. Additionally, some researchers have suggested that semantic and theory-internal considerations can also support the existence of a certain functional category.

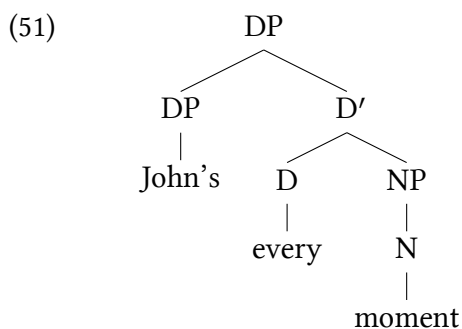
A theory-internal argument is sketched by Bernstein (2001: 536) who states that in the 1980s, the status of determiners in mainstream generative grammar was a bit odd. Defi-

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nite articles were taken to be part of the noun phrase, whereas other categories projected their own phrases.

While this alone would have constituted a (weak?) argument for the existence of a functional category DP above NP, there were many more. Szabolcsi (1983), for example, stresses the fact that Hungarian noun phrases are similar to clauses in that they include a category she calls INFL (which later evolved to IP, TP, etc.). I have addressed this similarity in Chapter 1, when I discussed the similar structures of verbs and possessed nouns. Szabolcsi writes that “the morphology of these NPs mirrors exactly the morphology of Ss, the only difference being that the place of the tense/mood morpheme on V is taken by the possessive morpheme on N.” (Szabolcsi 1983: 90). Abney (1987: 17f.) picks up this discussion and states that, first, there are other languages that have possessive structures like Hungarian, and, second, that it is also often the case that the agreement morphology is similar in the sentence and the noun phrase. He adds that “AGR in the sentence and AGR in the noun phrase frequently assign the same case: Nominative, in Hungarian; ergative, in Yup’ik or Mayan.” (Abney 1987: 18).

To account for Hungarian-style possessive structures, but also English possessives like *John’s every moment* or *John’s book*, Abney (1987: 20) suggests that there is a projection he calls DP above NP that houses possessors, determiners and is the functional category responsible for agreement between a possessor and a possessum in the noun phrase. He gives the following structure:



(Abney 1987: 20)

The structure in (51) provides the functional category for noun phrase agreement, a position for possessors and satisfies a strict conception of X-bar theory.<sup>1</sup>

There are also semantic arguments for the existence of DP. Bernstein (2001: 543) mentions that several researchers have suggested that the categories NP and DP correspond to a difference in their status as arguments: only DPs are arguments of a verb. Szabolcsi (1987) proposes that the presence of the category D (which may be silent) is what makes a noun phrase a possible argument for a verb. She argues that this makes articles (at

<sup>1</sup>Peter Hallman (p.c.) reminded me that the analysis in (51) is actually not widely accepted. A more common way to analyze (51) is that 's is located in D, and *every* heads a further projection.

least in Hungarian) very similar to complementizers (traditionally, subordinating conjunctions like *that*, Hungarian *hogy*, German *dass*, etc.), since complementizers enable sentences to be arguments for verbs. This leads her to state that “the selection of  $a(z)$  is merely concomitant with, and not the source of, definiteness.” (Szabolcsi 1987: 181). She later writes, similarly, that the presence of an article ( $a(z)$  ‘the’ or  $\emptyset$ ) depends on the definiteness of the noun phrase, but does not trigger it (cf. Szabolcsi 1994: 218ff.).

Not quite in accordance with this view, Bernstein argues that “another advantage of the DP-analysis is that it provides a functional head (that is, D) that encodes semantic features of determiner elements. Some of the features claimed to be encoded in D are (in)definiteness, specificity, referentiality, and deixis.” (Bernstein 2001: 544).

In short, there is consensus on the fact that the lexical category NP is accompanied by one (or several) functional projection(s). The exact nature of this projection is, however, debated. Especially the structure and properties of the Hungarian noun phrase is claimed to be different in a few respects (see Szabolcsi’s proposals above). Therefore, while it is often claimed that the head D of the projection DP is responsible for the (in)definiteness of the noun phrase, not all researchers accept this. The next section will introduce a few more candidates for functional categories above NP that are said to have morphosyntactic consequences.

## 2.2.4 Summary

This brief overview introduced some theoretical concepts that are necessary to follow the discussion of theoretical approaches to the phenomenon of Hungarian subjective and objective conjugations. What is most relevant is that much research in generative syntax has focused on the nature of functional categories, i.e., relatively abstract phrases in syntax that relate lexical and grammatical categories and meanings. Since the Hungarian conjugations are obviously involved with some kind of grammatical meaning (traditionally, if not quite correctly, the definiteness of the direct object), theoretical approaches in the generative framework have something to say about functional categories and the Hungarian conjugations.

## 2.3 The DP hypothesis

The title of this section states the basic claim that one approach to the Hungarian verb paradigms makes. The hypothesis states that only those direct object noun phrases trigger the objective conjugation that project the functional category DP above the noun phrase. This view was first put forth by Bartos (1997), more explicitly in Bartos (1999) and has been taken up by É. Kiss (2002, 2003a).

This hypothesis makes use of several theoretical concepts that I have sketched above, but it is necessary to outline some further theoretical aspects. Bartos (1999) is a study of Hungarian morphosyntax, i.e., it relates morphological processes that have an effect

on syntax with syntactic derivations. Such phenomena include, among others, classical types of agreement (in person, number, etc.), but also object agreement (or the triggering of the objective conjugation). I will introduce the main ingredients of Bartos' theory and show how it is put to practice, before discussing possible problems.

### 2.3.1 Morphology

The morphological side of Bartos' (1999) analysis is based on the framework of Distributed Morphology (DM, cf. Halle and Marantz 1993, with discussion in Stump 1998, Kiefer 2000b). Since Bartos deals with morphosyntactic phenomena, it is crucial how (and how well) morphology and syntax play together. Bartos assumes with Halle and Marantz (1993) that functional categories have grammatical features (the node T, for example, can have a feature [+PAST] when a clause is in the past tense). These features are combined with a verb stem in the course of a derivation.

A verb (and other inflected categories) can pick up the features of functional heads in several ways. It may move from one functional head to the next, by so called head-to-head movement. Following Pollock (1989), it has been suggested that morphological structure is built up by moving a verb through a series of functional categories where it picks up morphology. Halle and Marantz (1993) mention further morphological processes: *merger*, *fusion* and *fission*. They write: "Merger, like head-to-head movement, joins terminal nodes under a category node of head [...] but maintains two independent terminal nodes under this category node" (Halle and Marantz 1993: 116). Fusion, on the other hand, does not keep two independent nodes. In less abstract terms, where Hungarian verbs have a clearly agglutinative morphological structure, one might say that it is built up by repeated instances of merger (this is, in fact, what Bartos 1999 proposes). Regarding fusion, Halle and Marantz (1993) mention that it is a common phenomenon in Indo-European languages, especially those that are fusional (or inflecting). Take Latin case endings: there are endings like *-ibus* that express case (dative or ablative) and number (plural) in one suffix (arguably also gender, as in Lat. *-as* 'ACC.PL.FEM'). Hungarian noun morphology, by contrast, has distinct number and case suffixes, i.e., they are built by merger and not by fusion.

The DM approach to inflectional morphology associates features with functional heads. In light of the discussion above, if one takes DM to be correct, it follows that there is a lot of functional structure in the clause. Bartos (1999) builds his analysis on DM and therefore, in his view, the structure of the functional projections in the clause and the morphological structure of nouns and verbs are closely related. Bartos (1999) further assumes that the Mirror Principle (originally proposed by Baker 1985, cf. Bartos 1999: 5ff.) holds. Bartos modifies the original version (Baker 1985: 375) by removing the "(and vice versa)" part, giving rise to principle (52).



(52) *The Mirror Principle (adapted)*

Morphological derivations must directly reflect syntactic derivations.

What this means for Bartos (1999) is that the order of grammatical morphemes on a verb, for example, mirrors the order of functional categories in the syntax, where the verb picks up the relevant features. Again, this leads to extensive functional structure, which I will review next.

### 2.3.2 Noun phrase structure

Bartos (1999) and Bartos (2001) differ in their assumptions about the structure of noun phrases, the latter accepting the structure proposed by Szabolcsi (1994: 214), with a few modifications. É. Kiss (2002) follows Bartos' (1999) assumptions and refers to her and Bartos' structures as an update on Szabolcsi's original proposals (cf. É. Kiss 2002: 160).

The most important aspect of these proposals (except Szabolcsi's) is that not all noun phrases project the same structure. As É. Kiss (2002: 155) puts it, "there is semantic, morphosyntactic, syntactic and lexical evidence" for the fact that Hungarian noun phrases project different categories. She assumes that there are bare NPs, NumPs and DPs, each having different semantic content: "NPs denote properties, NumPs denote individuals identified by a property, whereas DPs denote individuals identified (more or less) uniquely" (É. Kiss 2002: 155).

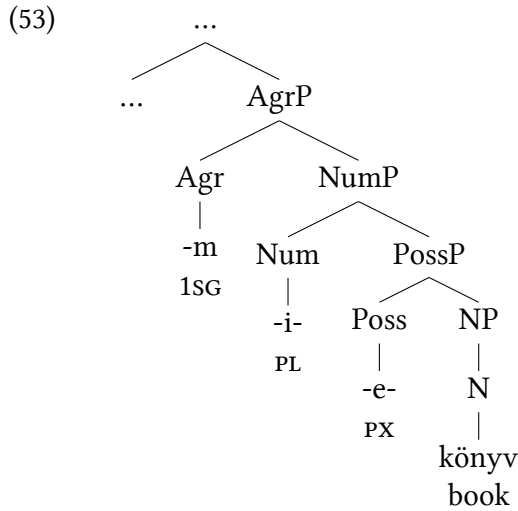
I will briefly review some of this evidence. The lexical projection NP is obviously part of the noun phrase. In addition, Bartos (1999: 25ff.) argues for the presence of NumP, a projection that either hosts the plural suffix *-k* or numerals and quantifiers (note that nouns are not marked for number when a plural numeral or quantifier is present). To accommodate the definite article, the presence of a DP projection is a further reasonable assumption (cf. Bartos 1999: 23, fn. 12 for references on these categories).

To include possessive morphology on the noun, Bartos proposes a phrase he calls PossP. As we have seen above, a possessed noun always has a possessive suffix. Bartos (1999: 25ff.) argues that in addition to the projection PossP, an agreement projection AgrP<sup>2</sup> is present to provide a location for agreement checking on the one hand, and the suffix showing the person and number of the possessor on the other hand. (Recall the discussion in Section 1.4.2, p. 18 about the morphological structure of possessed nouns.) This structure can account for possessed nouns such as *könyv-e-i-m* 'my books' as follows:

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<sup>2</sup>Bartos (1999) calls this projection Agr<sub>NP</sub> to distinguish this agreement projection from the clausal agreement projection AgrP (see below). I will ignore this.

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(É. Kiss 2002: 159)

- (54) könyv-e-i-m  
book-PX-PL-1SG  
'my books'

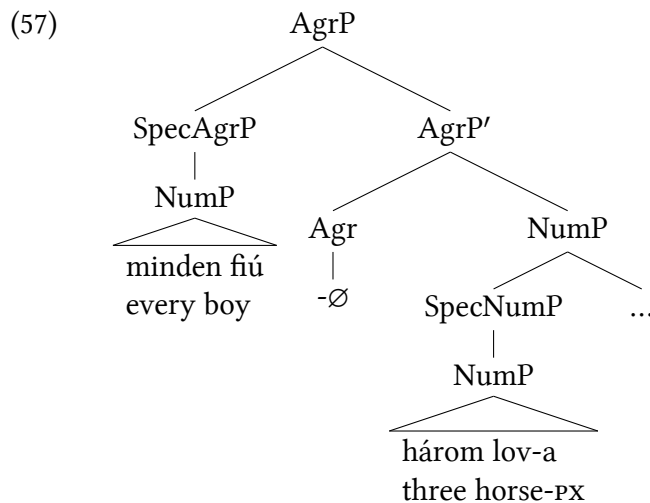
To give room to the two varieties of possessors (nominative and dative, see Sections 1.1.1 and 1.1.2 above), additional space is needed. The following examples suggest that the dative possessor is in a different position than the nominative possessor:

- (55) a. (a) Péter könyv-e-i-Ø  
(the) P. book-PX-PL-3SG  
'Peter's books'  
b. Péter-nek a könyv-e-i-Ø  
P-DAT the book-PX-PL-3SG  
'Peter's books'

According to Bartos (1999), the position of the nominative possessor is actually SpecAgrP, where agreement is checked, i.e., it is made sure that the possessor and the possessive suffix match in person and number. So far, no DP layer is needed. However, Bartos (1999: 107) argues that the possessor influences the behavior of the complete noun phrase in a fundamental way, using the data in (56). In (56a), the possessive noun phrase *egy/öt fű három lovát* is in the topic position, preceding the adverb *tegnap* 'yesterday'. That the noun phrase is in the focus position in (56b) is clear from the fact that the verb modifier *el* follows the verb in this case. However, Bartos (1999) claims that variation is impossible in (56c-d), i.e., the universally quantified phrase in (56c) *cannot* be in the focus position, while the weakly quantified phrase in (56d) must be there. Again, we can tell by the position of the verb modifier.

- (56) a. [Topic Egy/öt fiú három lov-á-t] tegnap  
 one/five boy three horse-PX.3SG-ACC yesterday  
 el-lop-t-ák.  
 VM-steal-PAST-3PL.OBJ  
 ‘Someone stole one/five boy(’s) three horses yesterday.’
- b. Tegnap [Focus egy/öt három fiú lovát] lopták el.  
 ‘Yesterday, someone stole one/three boy(’s) three horses.’
- c. Tegnap [V minden fiú három lovát] ellopták/\*lopták el.  
 ‘Yesterday, every boy’s three horses were stolen.’
- d. Tegnap [Focus kevés fiú három lovát] lopták el/\*ellopták.  
 ‘Few boys’ three horses were stolen yesterday.’ (Bartos 1999: 107)

Why do these possessive constructions vary regarding their positions? Recall that they are assumed to be located in SpecAgrP, illustrated in (57).



Bartos (1999: 107) argues that the determiner of the phrase in SpecAgrP moves to  $D^0$  and thus fixes the behavior of the whole noun phrase, i.e., DP, not just its containing NumP. This movement is illustrated in (58).

- (58) [DP [D egy/öt/minden kevés]<sub>x</sub> [AgrP [ t<sub>x</sub> fiú] [NumP három lova]]]  
 (Bartos 1999: 107)

Thus, Bartos argues that the presence of a nominative possessor (and the concomitant presence of a DP layer) leads to definite noun phrases. In his words: “In case of nominative possessors, [the noun phrase] can only have a definite interpretation, i.e., it is necessary in these cases that  $D^0$  be filled ...” (Bartos 1999: 109).

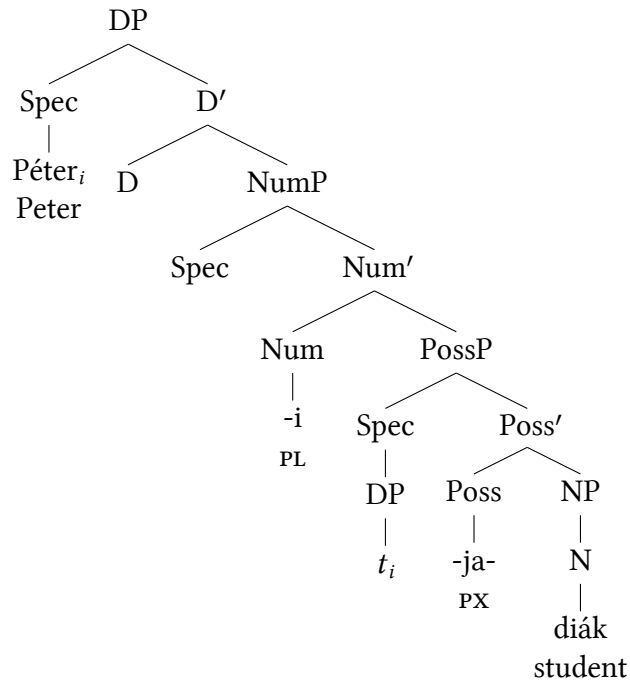
É. Kiss (2002: 160ff.) agrees that the nominative possessor is found in AgrP. The dative possessor is in a higher position, in DP (she modifies this proposal, cf. É. Kiss 2002: 166;

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this modification is irrelevant for our purposes, since both suggestions involve DP and the basic idea is in line with Bartos' (1999) suggestions).

É. Kiss (2002) proposes the following structures for nominative (or caseless) and the dative possessors, respectively.

(59) a. (É. Kiss 2002: 166)



- b. Péter diák-ja-i.  
P. student-PX-PL  
'Peter's students.'

(60) a.  $[_{DP} \text{ Péternek}_i [_{DP} a [_{NumP} -i [_{PossP} -ja- [_{NP} \text{ diák } t_i ]]]]]$  (É. Kiss 2002: 169)

- b. Péter-nek a diák-ja-i.  
P-DAT the student-PX-PL  
'Peter's students.'

É. Kiss (2002: 166) suggests that the possessor has a [+determiner] feature which is checked in the DP the possessum projects. Recall that Bartos suggests that the behavior of the possessor-DP determines the behavior of the whole DP in the clause. These two approaches are thus similar in this regard: the crucial point is that the possessor moves to DP.

### 2.3.3 Clause structure

Given Bartos' assumptions about the relation between morphology and syntax the functional structure of the clause is also expected to mirror the morphological structure of

the (grammatical) elements on the verb. There is a certain parallelism between the building of noun phrases described above (the combination, or merger, of a lexical noun with various functional morphemes) and the building of verbs in the clause. Just as there is certain evidence for functional structure above NP, there is evidence for functional structure above VP. I have already discussed aspects of the morphological structure of the verb paradigms in Section 1.4 (p. 12). Bartos (1999: 73) suggests that the following categories are expressed as suffixes on the verb (the respective markers are given in parentheses):

**Mood** indicative ( $\emptyset$ ), conditional (*-nA-*), imperative (*-j-*)

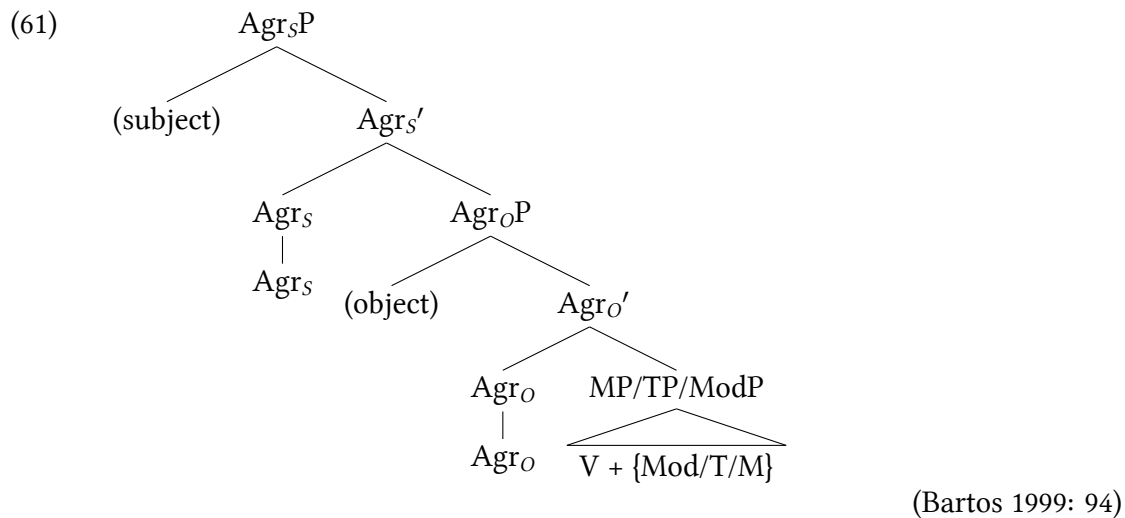
**Tense** present ( $\emptyset$ ), past (*-t(t)*)

**Modality** epistemic/deontic/... (*-hAt*)

**Subject agreement** in person and number (cf. Table 1.5, p. 13)

**Object agreement** in ‘definiteness’ (*-(j)a-/i-*, cf. Table 1.6, p. 13)

Given the focus of this thesis, I will not discuss the mood, tense and modality and focus instead on the agreement projections. Structure (61) illustrates Bartos’ assumptions about the relevant structure of the clause.



As above, the verb moves through the functional projections to pick up the features bundles located there, giving rise to the morphological structure shown in (62).

- (62)
- a.  $V + \{\text{Mod/T/M}\} + \text{Agr}_O + \text{Agr}_S$
  - b. vár-t-á-tok  
wait-T-AGR<sub>O</sub>-AGR<sub>S</sub>  
‘you waited for it’
- (Bartos 1999: 93)

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If Bartos' analysis is correct, structure (61) and the movement of the verb through the relevant functional projections seems reasonable. É. Kiss (2002: 43ff.) shares his assumptions and summarizes the need for functional structure as follows:

“Hungarian is an agglutinative language, i.e., tense, mood, person, etc. morphemes appear as suffixes on the verb. These morphemes, nevertheless, are independent syntactic constituents: they either enter into agreement relations with major constituents of the VP, or act as operators taking scope over the VP. Therefore, they will be represented as heads of functional projections extending the VP.”

(É. Kiss 2002: 43)

### 2.3.4 DPs as triggers of the objective conjugation

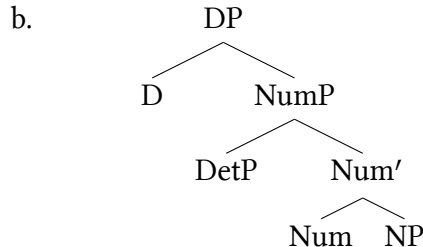
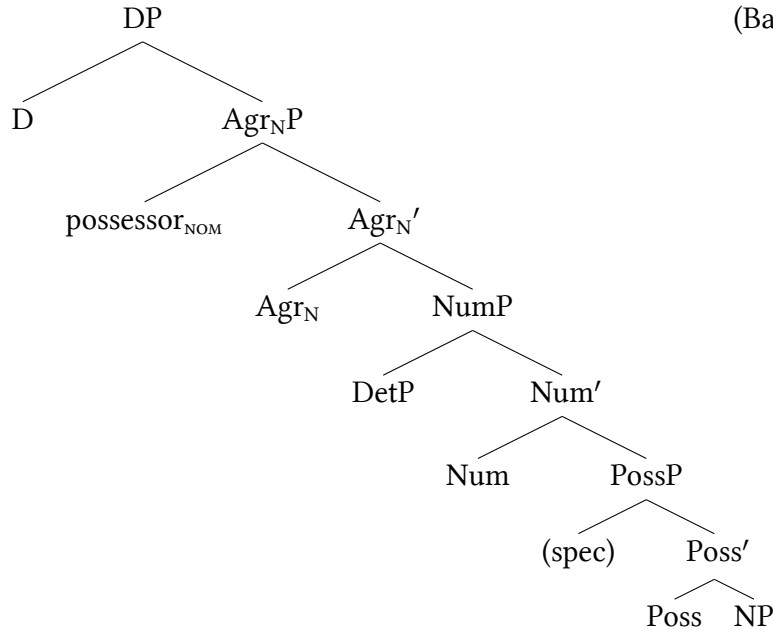
The main claim Bartos (1999) makes with respect to the morphosyntactic background of the subjective and objective conjugations is that the crucial property of the noun phrase that triggers the objective conjugation is its phrasal status of DP. This hypothesis has the obvious consequence that not every noun phrase has the same syntactic structure. Given that not every noun phrase has the same interpretation, this is not an unreasonable assumption.

It has become clear from the discussion of the noun phrase in Hungarian that there are several distinct positions for different types of elements, recall structure ?? (p. ??). Bartos (1999: 102) assumes that the projection of a noun phrase is as big as necessary to house the relevant parts, e.g. determiners, possessors, etc. Since numerals and the definite article *a(z)*, for example, do not share the same position in the noun phrase (cf. (63) for illustration), a noun phrase that only includes a numeral will not project as much structure as a noun phrase with a definite article. In (63a), Péter is originally in SpecAgrP and moves to D<sup>0</sup>. This fits well with the impossibility of (63b). (63c) shows that the dative possessor is located in a higher position that allows the definite article to appear.

- (63) a. Péter egy barát-ja  
P. one friend-PX  
'one of Peter's friends'  
b. \*Péter a barát-ja  
P. the friend-PX  
intended: 'Peter's friend'  
c. Péter-nek a barát-ja  
P.-DAT the friend-PX  
'Peter's friend'

Bartos (1999: 102) writes that “we can state that two types of noun phrase structure are possible in Hungarian: those that have the full structure shown in [(64a,b)], i.e., a DP, and those that only have a core, i.e., an NP.”

(64) a. (Bartos 1999: 102)



(Bartos 1999: 102)

The advantage of this hypothesis is that it should be predictable which noun phrases project a DP and which do not. Given that the objective conjugation is triggered by all direct objects that include a definite article — this being uncontroversial —, the presence of a DP might in fact be the trigger of the objective paradigm. Bartos (1999: 103, his (13)) states the following hypothesis (later revised to (66), Bartos 1999: 111, his (31)):

(65) The verb bears objective morphology if its object is of category DP.

(66) The verb bears objective morphology *if and only if* its object is of category DP.

Recall the triggers in Section 1.3 (p. 8) above: I take proper names, articles, most quantifiers and third person null objects to be definite and project DP. I will briefly mention the

structure of complement clauses introduced by *hogy* ‘that’. The remaining types of direct objects are discussed in more detail: possessive constructions, the quantifier *minden* ‘every’ and personal pronouns.

### 2.3.5 Complement clauses with *hogy*

Complement clauses that are introduced by *hogy* trigger the objective conjugation, when it is an argument of the verb. A common assumption in the literature is that such clauses are not only a CP (the category usually assigned to embedded clauses in generative grammar) but that they are “associated with a pronoun, which picks up the case assigned to the argument by the matrix predicate” (É. Kiss 2002: 230f.). This pronoun is of category DP. See the following examples for illustration:

- (67) a. *Az, [hogy Éva szereti Gergőt], nyilvánvaló.*  
           it that E. loves G.           obvious  
           ‘That Eve loves Gergő is obvious.’  
       b. *Azt hiszem, [hogy Éva szereti Gergőt]*  
           that-ACC think-I that E. loves G.  
           ‘I think that Eve loves Gergő.’  
       c. *Hallottál róla, [hogy Éva szereti Gergőt]*  
           heard-you about.it that E. loves G.  
           ‘Have you heard about it that Eve loves Gergő?’ (É. Kiss 2002: 231)

(In these examples, the brackets enclose the subordinate clause and the pronoun on the outside linked to it is in italic.) Bartos (1999: 110) also accepts this analysis, which is argued for in Kenesei (1994), who bases these assumptions on facts independent of object agreement. For more discussion see Kenesei (1994) and É. Kiss (2002: Chapter 10). This hypothesis has not been accepted by all researchers, see Coppock and Wechsler (2011: 21ff.) and the discussion below.

### 2.3.6 Possessive constructions

The behavior of Hungarian possessive constructions is a little bit puzzling with respect to the subjective and objective conjugations. In standard Hungarian, the situation seems to be straightforward. Possessive noun phrases trigger the objective conjugation. Recall example (27), repeated here as (68).

- (68) *Elront-ott-a Péter bicikli-jé-t.*  
       ruined-PAST-3SG.OBJ P.   bicycle-3SG.PX-ACC  
       ‘S/he ruined Peter’s bike.’

What is interesting about these constructions is it seems that the possessive noun phrase does not have to be semantically definite (which is usually the case with direct objects that



trigger the objective conjugations). The following examples illustrate this. (69a) includes the quantifier *néhány* ‘some’, while (69b) includes the numeral (or indefinite article) *egy* ‘a(n), one’. These determiners are indefinite determiners, yet the possessive noun phrase they are part of still triggers the objective conjugation.

- (69) a. Lát-t-uk            néhány lov-á-t.  
           see-PAST-1PL.OBJ some    horse-3SG.PX-ACC  
           ‘We saw some of his horses.’ (Bartos 1999: 109)
- b. Ismer-em        egy barát-já-t.  
           know-1SG.OBJ one friend-3SG.PX-ACC  
           ‘I know one of his friends.’
- c. Lát-om        öt    ember-ed-et.  
           see-1SG.OBJ five man-2SG.PX-ACC  
           ‘I see five of your men.’ (Bartos 2001: 313)

Bartos (2001: 313) acknowledges that possessive constructions can be indefinite stating that “when the object includes a possessive construction, the verb usually appears with the objective paradigm, even though the same indefinite determiner is present (and, accordingly, the NP is still interpreted as indefinite).” Szabolcsi (1994: 223) also suggests that “the range of noun phrases that trigger definite conjugation is semantically inhomogeneous.”

It might seem out of place to discuss semantic aspects of direct objects when the DP hypothesis is about a structural property of the object. But we expect that the interpretation and the structure of an argument correlate with each other, i.e., we expect definite objects to have more structure than indefinite objects. From this perspective, it might rather seem odd that both indefinite and definite objects (when part of possessive noun phrases) behave identically.

At this point, it is interesting to take another look at some of the data mentioned in Chapter 1. In some varieties of Hungarian, not *all* possessive constructions trigger the objective conjugation. This is illustrated in the following examples, repeated from p. 10.

- (70) a. [%]Péter-nek ismer-ek        két nővér-é-t.  
           P.-DAT        know-1SG.SUBJ two sister-3SG.PX-ACC  
           ‘I know two of Peter’s sisters.’
- b. Péter-nek ismer-em        két nővér-é-t.  
           P.-DAT        know-1SG.OBJ two sister-3SG.PX-ACC  
           ‘I know Peter’s two sisters.’ (É. Kiss 2003a: 91)
- (71) a. Olvas-t-uk            néhány vers-ed-et.  
           read-PAST-1PL.OBJ some    poem-2SG.PX-ACC  
           ‘We read some of your poems.’ or ‘...some particular poems of yours.’

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- b. %Olvas-t-unk            néhány vers-ed-et.  
read-PAST-1PL.SUBJ some poem-2SG.PX-ACC  
'We read some of your poems.' (Bartos 1999: 99)

These examples show an interesting contrast. In both pairs, the sentence marked with % indicates that it is only acceptable in certain dialects (I have added % to É. Kiss' example). In these sentences, the verb is in the subjective conjugation, something that is not possible in standard Hungarian. In these dialects, there is a difference in meaning that correlates with the subjective and objective conjugation. This semantic difference lies in the specificity of the object, a concept best illustrated with an example:

- (72) I'm looking for a book.  
(73) a. There is a book I am looking for.  
b. I am looking for any book.

The indefinite object *a book* in (72) can have at least two interpretations. One of them corresponds to (73a), in the case that the speaker has a certain book in mind that he or she is looking for. The second case, (73b), describes a situation where the speaker is happy if he or she finds any book (the point being that anything that has the property of being a book is fine).

Similarly, the interpretation of the pairs in (70) and (71) differs in specificity. The %-marked sentences have a non-specific meaning, i.e., the object is interpreted as *any two of Peter's sisters* and *any one of your poems*, respectively, as hinted at in the translations above.

Bartos (1999, 2001) provides a simple solution for this that follows from the DP hypothesis if it is correct. Since the objective conjugation is assumed to be a morphosyntactic reflection of the object's DP category, it seems that only specific possessive noun phrases are DPs in said dialects. If this is the case, syntactic structure and meaning correlate nicely. Bartos (2001: 319) suggests that while the dative possessor in the above examples is usually assumed to be in the DP, this cannot be the case here. He argues that it has been extracted before the DP projection was added so that non-specific possessive noun phrases do not have a DP layer. This argument might seem *ad hoc* on its own, but there is evidence that some dative possessors do not form a constituent with the possessum, which makes the assumption that these constructions differ in structure more plausible.

There are certain constructions that provide exactly the context we need, so called *definiteness effect* constructions (cf. Szabolcsi 1986, É. Kiss 1995 for general and Hungarian-specific discussion). Some expressions, like English existential *there*-constructions, Hungarian *van* 'be' and verbs like *születik* 'be born' require that their argument be indefinite.

- (74) a. There are two books on the table.  
b. \*There are the books on the table.

- (75) a. Van két könyv az asztal-on.  
is two book the table-SUP  
'(74a)'  
b. \*Van a könyv az asztal-on.  
is the book the table-SUP  
'(74b)'

(74) and (75) illustrate that definites are excluded in these constructions. *van*-constructions can combine with possessive noun phrases; in fact, Hungarian lacks a *habeo*-verb, so this *mihi est*-structure expresses possession (with the possessor bearing dative). However, the appearance of possessive noun phrases in these structures is restricted. First, nominative possessors are excluded (cf. (76a)), second, the dative possessor cannot form a constituent with the possessum (cf. (76b,c)).

- (76) a. \*Van-nak Mari kalap-ja-i.  
be-3PL M. hat-3SG.PX-PL  
intended: 'Mari has hats.'  
b. \*(Csak) Mari-nak kalap-ja-i van-nak.  
only M.-DAT hat-3SG.PX-PL be-3PL  
intended: 'Only Mary has hats.'  
c. (Csak) Mari-nak van-nak kalap-ja-i.  
only M.-DAT be-3PL hat-3SG.PX-PL  
'Only Mary has hats.'

(Szabolcsi 1994: 225)<sup>3</sup>

*csak* 'only' forces the following phrase to be a single constituent in the pre-verbal focus position. (76b) suggests that *Mari-nak* and *kalapjai* do not form a constituent in this case. Using similar examples (parallel to (76), but involving the verb *születik* 'be born'), É. Kiss (2002: 173) argues that since these predicates require non-specific arguments, these have to be NumPs or bare NPs. These cannot project a DP, otherwise they would be unacceptable in constructions like (76c) (cf. (51a-c) in É. Kiss 2002: 173).

Szabolcsi states the following generalization:

- (77) a. When the possessor is inside DP (in the nominative or in the dative), DP is specific (potentially also definite).  
b. For DP to be non-specific, it must have the possessor extracted (in addition to not containing any specific determiner, of course).

(Szabolcsi 1994: 226)

(We have to gloss over the fact that (77b) refers to DP; Szabolcsi's view of noun phrase structure slightly differs from the one defended by Bartos 1999 and É. Kiss 2002.)

<sup>3</sup>I have slightly altered the original glosses to be more consistent with the ones in this thesis.

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To summarize: there is evidence that some possessive noun phrases are separated from their possessors. This can be seen by testing the behavior of possessives in constructions that require non-specific arguments. Only those possessives are allowed that have an extracted dative possessor, i.e., a dative possessor that does not form a constituent with the possessum. This has been illustrated in the examples above.

This situation can be exploited to explain the dialectal variation in verb morphology shown above in examples (70) and (71). Bartos (1999: 109), Bartos (2001: 319) and É. Kiss (2002: 173, 180) argue that where the object is interpreted as non-specific, the possessor has been extracted before a DP was formed. Those possessive noun phrases are therefore not DPs and therefore do not trigger the objective conjugation.

This explains the dialectal variation, but we are faced with the following problem. If the DP hypothesis and the above explanation are correct, then all possessive noun phrases project DPs in the standard language, because they trigger the objective conjugation and we see no variation. This is unexpected, since it has been argued above that the syntactic structure and the meaning of the phrase are not independent of each other but correlate (cf. again É. Kiss 2002: 155 who argues that different noun phrase categories denote different meanings).

This seems to suggest that in the standard language, (a) either the correlation between syntactic structure and meaning is overwritten for some reason (since non-specific possessive noun phrases nevertheless project DPs) or (b) there are no possessive noun phrases that are interpreted as non-specific in the standard, since none of them trigger the subjective conjugation. If the DP hypothesis holds without exceptions, possibility (b) should hold as well.

Szabolcsi (1994: 226) does provide an example of possessive noun phrase that she claims is interpreted as non-specific. See the following examples:<sup>4</sup>

- (78) a. Nem olvas-t-ad [Chomsky vers-é-t].  
not read-PAST-2SG.OBJ C.(-NOM) poem-3SG.PX-ACC  
'You haven't read Chomsky's poem.'
- b. (Csak) [Chomsky-nak *t* vers-é-t] nem olvas-t-ad.  
only C.-DAT poem-3SG.PX-ACC not read-PAST-2SG.OBJ  
'It is (only) Chomsky's poem that you haven't read.'
- c. Chomsky-nak nem olvas-t-ad *t t* vers-é-t.  
C.-DAT not read-PAST-2SG.OBJ poem-3SG.PX-ACC  
'You haven't read any poem of Chomsky's.'  
? 'You haven't read Chomsky's poem.' (Szabolcsi 1994: 226)

For Szabolcsi, the second translation of (78c), marked with ?, is archaic, the first one being more natural. She interprets (78c) as having a non-specific object. If that is in fact the

<sup>4</sup>I have again slightly changed the glosses. *t* indicates a trace, i.e., the position that the extracted possessor originated in.

prominent reading, then it seems that we are really in a situation like (a) above, to wit, that in standard Hungarian, there are exceptional cases where structure and meaning do not correlate. In Szabolcsi's words: "These data are from the majority dialect, and they indicate quite unambiguously that object agreement cannot be used as a semantic litmus test" (Szabolcsi 1994: 227). However, in other dialects (presumably the same ones referred to above), (78c) can be realized with a verb in the subjective conjugation, once again reflecting the distinction already mentioned above.

- (79) Chomsky-nak nem olvas-t-ál                      vers-é-t.  
       C.-DAT            not   read-PAST-2SG.SUBJ poem-3SG.PX-ACC  
       'You haven't read any poem of Chomsky's.'                      (Szabolcsi 1994: 227)

(79), which structurally differs from (78c) only in the choice of the conjugation again shows that some dialects correlate the non-specific/specific distinction with the morphosyntactic distinction of subjective and objective conjugation.

### Tentative conclusions?

Above, I suggested two possibilities of dealing with apparent mismatches between structure and meaning. This is necessary because it is reasonable to assume that structure and meaning correlate in non-arbitrary ways. The following tables illustrate the situation. If Szabolcsi's (1994) data are correct, then there should be a mismatch between structure and meaning in Standard Hungarian, since the objective conjugation is triggered by both non-specific and specific possessive noun phrases (cf. Table 2.1). Note, however, that this mismatch (marked gray in Table 2.1) is not so relevant for Szabolcsi (1994: 226f.) who assumes all of these noun phrases to project DP; the difference in meaning is specified by the inner noun phrase; in the case of non-specific interpretation, there is an empty D.

	Standard Hungarian	Dialects
Non-specific (NumP?)	objective conjugation	subjective conjugation
Specific (DP)	objective conjugation	objective conjugation

Table 2.1.: Possible mismatch between structure and interpretation

If (78c) does not allow a non-specific interpretation, it could be argued that Standard Hungarian does not have non-specific possessive noun phrases. This alternative would avoid a mismatch, but lack non-specific readings, cf. Table 2.2.

Bartos (1999: 99f.) does consider analyzing the triggering of the objective conjugation based on meaning, more precisely based on specificity (as in the dialects above). A similar situation is found in Turkish, as we will see later (cf. Chapter 3, Section 3.1). But Bartos quickly discards this idea. He writes:

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	Standard Hungarian	Dialects
Non-specific (NumP?)	∅	subjective conjugation
Specific (DP)	objective conjugation	objective conjugation

Table 2.2.: No mismatch between structure and interpretation

“Hungarian seems to differ from Turkish only in that it is not the object’s case-marking but the verb’s morphology that correlates with the specificity of the object. We still have to dismiss this enticing explanation. On the one hand, there is no one-to-one correspondence between the specificity of the object and the objective conjugation in Hungarian. While it is true that the objective conjugation favors a specific interpretation of the object, it is not a necessary condition. In addition, the indefinite object of a verb with subjective morphology can be interpreted as specific.”

(Bartos 1999: 99f.)

A preliminary conclusion regarding the structure and meaning of possessive noun phrases might be that their behavior seems more regular in certain dialects, where different morphosyntactic reflexes correlate with interpretation. What this means for Standard Hungarian is not clear. While the structure of noun phrases does reflect the interpretation in most cases, I am not able to decide whether Standard Hungarian disallows non-specific possessive noun phrases (the situation in Table 2.2) or whether there is in fact an interesting structural difference between non-specific noun phrases in certain dialects and Standard Hungarian (cf. Table 2.1). The data seem to favor the second conclusion.

In addition to the puzzle just introduced, a few other elements seem to suggest that there might be certain mismatches between structure and interpretation.

### 2.3.7 *minden*

Bartos’ quotation above is missing the phrase ‘on the other hand’. His second argument against a semantic explanation of the subjective and objective conjugation concerns the quantifier *minden* ‘every’. It is usually assumed to have a specific meaning (cf. Bartos 1999: 100 and references cited there, also Szabolcsi 1994: 222, É. Kiss 2002: 156). Since a direct object that is quantified with *minden* triggers the subjective conjugation, Bartos argues, it cannot be the case that subjective and objective conjugations correlate with specificity and non-specificity, respectively. É. Kiss (2002: 156) argues that such objects must be NumPs (since they do not trigger the objective conjugation, as DPs would).

Objects with *minden* are a bit puzzling. Szabolcsi (1994: 219) mentions that *minden* “sides with definites in that noun phrases containing it cannot appear in existential contexts that exhibit the so-called definiteness effect.” (cf. the discussion and references

above). She gives the following examples to illustrate the distribution of *minden* in such constructions (cf. Szabolcsi 1986: 325f. for additional examples). The crucial point is that *minden* patterns with specific or definite elements in such contexts.

- (80) a. Van két könyv.  
is two books  
'There are two books.' (Szabolcsi 1994: 219)
- b. \*Van ezen könyv.  
is this book  
'There is this book.'<sup>5</sup>
- c. \*Van minden könyv.  
is every book  
'There is every book.' (Szabolcsi 1994: 220)

With respect to verb morphology, (80b,c) behave differently, however:

- (81) a. \*Lát-ok ezen kutyá-t.  
see-1SG.SUBJ this dog-ACC  
intended: 'I see this dog.'
- b. Lát-ok minden kutyá-t.  
see-1SG.SUBJ every dog-ACC  
'I see every dog.'

What is more, Szabolcsi (1994) mentions another interesting phenomenon. She argues that *minden* can co-occur with the definite article *a(z)* "if something intervenes" (Szabolcsi 1994: 220, and see (82)), another similarity to definite determiners like *ezen*. As mentioned above, *minden* alone triggers the subjective conjugation, if however, without a change in meaning, the definite article *a(z)* is included in the structure, the objective paradigm is used.

- (82) a. Eltikol-ok minden/három találkozás-t.  
keep secret-1SG.SUBJ every/three meeting-ACC  
'I keep every/three meetings secret.'
- b. Eltitkol-om a [veled való] minden találkozás-t.  
keep secret-1SG.OBJ the with-2SG being every meeting-ACC  
'I keep every meeting with you secret.' (Szabolcsi 1994: 222)
- c. \*Eltitkol-ok a [veled való] minden találkozás-t.  
keep secret-1SG.SUBJ the with-2SG being every meeting-ACC  
intended: '(82b)' (Szabolcsi 1994: 223)

<sup>5</sup>Note that this phrase does have a reading with a specific interpretation. This reading is clearer when an additional qualification is given, as in *There is this book I was telling you about*. This shall not concern us here.

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One has to be careful in analyzing these examples. It looks as though the DP hypothesis can explain (82a-c) in a straightforward way: additional structure, the DP-layer provided by *a(z)*, triggers objective morphology. The problem, however, is that there is no change in meaning,<sup>6</sup> (82b) being no more specific or definite than (82a). This can be seen particularly well when contrasted with the noun phrase including the numeral *három* ‘three.’ First, the noun phrase *a három találkozást* is fine, in contrast to *\*a minden találkozás* (cf. Szabolcsi 1994: 209 for discussion of combinations of the definite article and certain quantifiers). Second, there is a difference in meaning between *három találkozás* and *a három találkozás*, namely that the former is indefinite, while the latter definite. The two phrases are interpreted exactly like their English counterparts *three meetings* and *the three meetings*. The case of non-specific possessive noun phrases and the behavior of the quantifier *minden* could actually be taken as evidence for the DP hypothesis, since it is based on a structural notion. However, this conclusion is troubled by the fact that the functional structure has to be motivated. If interpretation motivates structure, but different structures do not always correlate with different interpretations, the evidence is weakened. See Section 4.5.2 for a possible solution to this problem.

### 2.3.8 Pronouns

So far, I have only considered the DP hypothesis in combination with third person objects. First and second person objects behave differently, however. With third and second person subjects and first or second person objects (personal pronouns), we only see the subjective paradigm, cf. (83).<sup>7</sup> As mentioned above, there is a special object agreement morpheme for first person subjects and second person objects (cf. (42), p. 21).

- (83) *Third person subject, first ((83a)) and second ((83b)) person object*
- a. Mari keres-Ø (engem).  
M. look for-3SG (me.ACC)  
‘Mari is looking for me.’
  - b. Péter szeret-Ø (téged).  
P. love-3SG (you.ACC)  
‘Peter loves you.’  
*Second person subject, first person object*
  - c. Lát-sz (engem).  
see-2SG.SUBJ (me.ACC)  
‘You see me.’

<sup>6</sup>Obviously ignoring the phrase *veled való* ‘with you’ whose meaning does not interfere with the interpretation of the noun phrase.

<sup>7</sup>Interestingly, if the object is dropped in (83), the verb is not necessarily interpreted as intransitive, but a first or second person referent can be understood as the object. When an object of a verb from the objective paradigm is dropped, the referent is always a third person object.



There are several proposals in the literature of how to deal with this problem. Bartos (1999: 65f.) argues that there are a few differences between first and second pronouns on the one hand, and third person pronouns on the other. Some are semantic or pragmatic. For example, the plural of first and second person pronouns and third person pronouns has a different meaning. Bartos (1999: 65) states that *ők* ‘they’ typically means something like  $he_1 + he_2 + he_2 + \dots + he_x$ , i.e., a plurality of third person referents. However, in the first and second person, this is not the case. *mi* ‘we’ usually means ‘I and someone else’ and not ‘I and I etc.’ He further argues that there is a difference in how these pronouns *refer*. The reference of third person pronouns depends strongly on the context, while first and second persons are linked to speaker and addressee, respectively. A morphological difference, also mentioned by Moravcsik (1978: 355), is that the plural of the third person is regular, i.e., it involves the usual nominal plural marker *-k*: *ő* ‘s/he’, *ők* ‘they’. This is not the case with first and second person pronouns: *én* ‘I’, *mi* ‘we’, *te* ‘you (sg.)’, *ti* ‘you (pl.)’.

Bartos (1999: 66) concludes that *ők* is not specified for number by itself, it can be pluralized normally, while “*én*, *te*, *mi*, *ti* on the other hand are inherently marked for number.”

He goes on to suggest that these differences could count as evidence for the hypothesis that the first and second person pronouns are NumPs (the functional projection linked to number), while third person pronouns are DPs, the projection linked (among other things) to the context dependent kind of reference these pronouns show. If this is true, the morphosyntactic difference of the two groups of pronouns falls out easily: only third person pronouns trigger the objective conjugation (cf. Ritter 1995 for slightly different conclusions).

É. Kiss (2003b, to appear, 2011) proposes a different explanation. In É. Kiss (2003b), she suggests that the restrictions in object agreement with first and second person pronouns could be connected to a phenomenon similar to *inverse verb forms*. Her proposal is based on data surveyed by Comrie (1980) from three Siberian languages, Chukchee, Koryak and Kamchadal, all part of the Chukotko-Kamchatkan family (Comrie 1980: 61). Briefly put, in these languages, the morphological form of the verb depends on not only the person and number of the subject, but it is also influenced by the person and number of the object. In particular, if the object of a verb is lower on a certain animacy hierarchy than the subject (these hierarchies are not exactly the same in all languages), a so called *inverse verb form* is used (marked with an affix; cf. Comrie 1980: 60, Table 4-5 for details).

É. Kiss (2003b) interprets this as follows. Since in Hungarian, a verb with a third person subject does not agree with a first or second person object, and a second person subject does not agree with a first person object, it seems that there might be a restriction based on a hierarchy that places the first person above the second, and the second above the third. In later work (É. Kiss 2011: 3), it is stated as follows:

(84) *Inverse agreement constraint* (in Hungarian)

An object agreeing with a verb must be lower in the animacy hierarchy than the

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subject agreeing with the same verb, unless they both represent the lowest level of the animacy hierarchy.

This concludes the overview of the DP hypothesis; I will discuss further problems below, in connection with different analyses of these phenomena.

### 2.4 The morphological analysis

This approach to Hungarian the Hungarian conjugations has been proposed by Coppock and Wechsler (2009, 2010b, 2011). The crucial suggestion of Coppock and Wechsler is that what triggers the objective conjugation in Hungarian is the presence of a morphological feature ([+DEF]) that some morphemes have and some do not. They have put this proposal as follows:

- (85) a. “DEF is a feature in Hungarian, associated with a particular set of forms.”  
(Coppock and Wechsler 2009: 38)
- b. The Hungarian objective conjugation is “predictable solely based on form.”  
(Coppock and Wechsler 2009: 20)
- c. “DP-hood does not determine the presence of [DEF].”
- d. “Rather, [DEF] is encoded in each of a small finite set of morphemes, plus the proper names.”  
(Coppock and Wechsler 2010b: 46)
- e. “[W]hether or not an element bears the [DEF] feature depends entirely on its morphological form, rather than its semantic content or even its syntactic category.”  
(Coppock and Wechsler 2011: 31)

It should be clear that the main claim of this *morphological analysis* is that a morphological element triggers the objective conjugation. Coppock and Wechsler (2009: 35) suggest that the suffixes of the objective paradigm require objects that have the feature [DEF]. Another claim, hinted at in (85c) is that the DP hypothesis introduced above is false. I will review the proposal by Coppock and Wechsler briefly, focussing again on complement clauses, possessive structures and the quantifier *minden* ‘every.’

#### 2.4.1 Complement clauses with *hogy*

As mentioned above, Hungarian complement clauses with *hogy* ‘that’ are often analyzed as being associated with a pronoun of category DP. This is a welcome suggestion for the proponents of the DP analysis. However, Coppock and Wechsler (2011: 21ff.) raise some objections against this view. While in principle plausible, they argue that some data are

hard to explain with the DP hypothesis. These concern sentences in which an element of the embedded clause has been extracted and moved to the matrix clause (or main clause).<sup>8</sup>

- (86) a. Péter-t mond-t-a [hogy jön].  
 P-ACC say-PAST-3SG.OBJ that come-3SG.SUBJ  
 ‘It is Peter who s/he said is coming.’  
 b. János holnap mond-t-a [hogy érkezik].  
 J. tomorrow say-PAST-3SG.OBJ that come-3SG  
 ‘It is tomorrow that John said that he is arriving.’  
 (Coppock and Wechsler 2011: 23)

In (86a), even though *Pétert* bears accusative case, it is not the object of *mond* ‘say’. Rather, it is the subject of the embedded clause (marked with square brackets). The sentence is to be interpreted that someone (the subject of the main clause has been dropped) said that Peter is coming. In (86b), the moved element is *holnap* ‘tomorrow’. This has to be interpreted in the embedded clause, i.e., the sentence asserts that the time of John’s arrival is tomorrow, but not that tomorrow is the time of John uttering this.

The pronoun, or expletive, *azt* that is associated with the embedded clause is assumed to be in the position that elements are moved to (cf. Kenesei 1994: 315). Because of this, Kenesei (1994: 318) notes that “the approach outlined here can account for the obligatory absence of the expletive and case change of the moved item”. However, since the pronoun is of category DP, its lack should not trigger the objective conjugation. But this is what happens in some cases.

- (87) a. Két ember-rel szeret-né-m [hogy Péter találkozik-on]  
 two men-INSTR like-COND-1SG.OBJ that P. meet-SBJV-3SG.SUBJ  
 ‘It’s two men that I’d like Peter to meet (with).’  
 b. \*Két ember-rel szeret-né-k [hogy Péter találkozik-on]  
 (Kenesei 1994: 318)

(87b) differs from (87a) in that the verb is inflected according to the subjective conjugation. Since the phrase *két emberrel* is indefinite and oblique (*találkozik* takes an argument in instrumental case), we would not necessarily expect the verb in the main clause to have an objective suffix. Kenesei (1994: 318) states that his approach “has no natural explanation to offer for the properties of the conjugation in case oblique arguments or adjuncts are moved.”

Facts like these lead Coppock and Wechsler (2011: 23) to conclude that “the verb agrees with a *hogy*-marked CP, rather than a DP. This is not compatible with the DP-hood analysis.” For them, *hogy* is one of the elements that has the feature [DEF]. If I understand this proposal correctly, I take it to suggest that all verbs with a *hogy*-complement should

<sup>8</sup>Again, I slightly adjusted the glosses for sake of coherence.

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bear objective morphology. However, this is not necessarily the case, cf. the following examples:

- (88) a. Csak két dolgo-t akar-ok [hogy el-mond-j-ál]  
 only two things-ACC want-1SG.SUBJ that PRF-say-SBJV-2SG.SUBJ  
 ‘There’s only two things that I want you to say.’  
 (Kenesei 1994: 317)
- b. Ki-t szeret-né-l [hogy meg-ver-j-ek]?  
 who-ACC like-COND-2SG.SUBJ that PRF-beat up-SBJV-1SG.SUBJ  
 ‘Who do you want me to beat up?’
- c. Ki-t szeret-né-l [hogy meg-ver-j-em]?  
 who-ACC like-COND-2SG.SUBJ that PRF-beat up-SBJV-1SG.OBJ
- d. Ki-t szeret-né-d [hogy meg-ver-j-ek]?  
 who-ACC like-COND-2SG.OBJ that PRF-beat up-SBJV-1SG.SUBJ
- e. \*Ki-t szeret-né-d [hogy meg-ver-j-em]?  
 who-ACC like-COND-2SG.OBJ that PRF-beat up-SBJV-1SG.OBJ  
 (Bartos 1999: 110)

Bartos’ data in (88b-e) show that several combinations of verb morphology in the main and the embedded clause are possible. The only one that is ungrammatical is (88e), where both verbs have objective morphology. In the generative framework that Bartos is working in, it is assumed that *kit* ‘whom’ moves from the embedded clause to the main clause, since it questions the object of *megverni* ‘beat up’. Movement usually leaves a trace, a phonetically empty object. However, for (88c), Bartos (1999: 110) suggests that it is not a trace in the embedded clause, but *pro*, a different kind of silent element that has all the properties of pronouns, but is not spelled out (null subjects and objects in Hungarian and other languages are said to be *pro*). Since *pro* is like a pronoun, it triggers the objective conjugation on the embedded verb in (88c). Regarding (88d), Bartos (1999: *ibid.*) argues that there is an unpronounced *azt*, i.e., the expletive or pronoun associated with a *hogy*-clause that triggers the objective conjugation. Finally, he claims that the reason of the ungrammaticality of (88e) is that both the embedded position is filled with *pro* and unpronounced *azt* is present in the main clause.

This analysis implies that *kit* can be generated in different positions in the clause and that the CHAIN that is associated with the embedded clause can have different heads. In (88b) and (88c), *kit* heads the CHAIN and therefore the matrix verb has subjective morphology, the difference being that in (88c), it is necessary to generate *kit* in the matrix clause, since its position in the embedded clause is occupied by *pro*. In (88d), on the other hand, the CHAIN is headed by a silent expletive DP and *kit* moves to its position from the embedded clause. Assuming that *kit* is generated in the matrix clause might be problematic. While it is possible to have an expletive *wh*-expression in a matrix clause, this expression is usually not *kit*, but *mi-t* ‘what-ACC’, cf. (89).

- (89) Mi-t gondol-sz [(hogy) ki-t látog-as-s-unk meg]  
 what-ACC believe-2SG.SUBJ that who-ACC visit-SBJV-1PL.SUBJ PRF  
 ‘Who do you think we should visit?’ (Kenesei 1994: 316)

Kenesei (1994: *ibid.*) states that *mit* is the “interrogative version of the expletive *az* ‘it’”. I assume that Bartos’ proposal regarding (88c) amounts to the same analysis. However, *mit* in (89) lacks meaning and cannot be understood to be associated with the embedded verb. *kit* in (88c) is clearly interpreted as asking for the object of the embedded verb; replacing it with *mit* would change the interpretation to (the pragmatically odd proposition) ‘what do you want me to hit?’. An expletive construction along the lines of (89) would be possible, with *mit* in the matrix clause and *kit* in the embedded clause and both verbs having subjective suffixes. I cannot offer a better solution to this problem.

The approach to *hogy* proposed by Coppock and Wechsler (2011) does not fare much better, since if *hogy* were the element that triggers the objective conjugation, the subjective morphology in the main clause in (89a-c) remains to be explained. The objections raised by Coppock and Wechsler (2011) thus seem to be valid arguments against the DP hypothesis, but it seems that their own approach does not solve all problems. Since a solution to this problem is not my main concern, I will not attempt to propose one; it should just be noted that neither of the approaches mentioned seems to capture all the facts.

### 2.4.2 Possessive constructions

Coppock and Wechsler (2010b: 30) state that possessive suffixes have the morphological feature [DEF], i.e., the forms *-ad* for second person singular, *-unk* for first person plural etc. are definite. Elsewhere, Coppock and Wechsler (2011: 5) write that “[p]ossessed noun phrases are definite” and that this “is true regardless of the determiner, so nominals with determiners that normally do not trigger the objective conjugation do so when the noun is possessed.”

I have discussed the analysis of possessive structures in the DP hypothesis extensively above and reached the not quite satisfactory conclusion that while the DP hypothesis' assumptions about noun phrase structure in possessive noun phrases are well founded, it still cannot offer a full account of all the relevant phenomena. The dialectal data that distinguish non-specific and specific readings with different verb morphology seem to be more regular than standard Hungarian in this regard, where we either have a mismatch between structure and interpretation (since non-specific and specific meanings show the same morphosyntactic reflexes) or standard Hungarian prohibits a non-specific interpretation of possessive noun phrases.

Coppock and Wechsler's (2011) claim that all possessed noun phrases are definite is not quite correct. We have seen plenty of examples above (cf. (28), (29), (69)) that are hardly definite. This is not a problem for the morphological analysis on its own, since it just

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states that possessive suffixes have a feature [DEF], but it casts doubt on whether it is really definiteness we are dealing with. In fact, Coppock and Wechsler (2011: 15) state that “there *are* semantically indefinite objects that trigger the objective conjugation” (my emphasis). They mention quantified, possessed noun phrases in this regard (which, being non-referential, should be indefinite, cf. Coppock and Wechsler 2011: *ibid.*). This suggests that it might not be *semantic* definiteness that is expressed by [DEF].

Also, the dialectal data discussed above pose a problem for Coppock and Wechsler. In those dialects where possessive noun phrases can be interpreted as non-specific, they could claim that these objects lack the feature [DEF]. However, on the one hand, this would make specific noun phrases have this feature without necessarily being definite, so the objection made above would still hold. And on the other hand, the non-specific reading does seem to correlate with the extraction of the possessor (cf. the constituency tests in (76)), i.e., there is good evidence that the reason for the non-specific reading in certain dialects *is* structural or at least related to aspects of the syntactic structure of the noun phrases. This conclusion is not available if we are dealing with a purely morphological feature. Its absence in non-specific possessive noun phrases would have to be the trigger of the subjective conjugation (or, rather, the lack of the trigger of the objective conjugation), but then the suggestion that the definite conjugation is “predictable solely based on form” (Coppock and Wechsler 2009: 20) loses some of its explanatory power, since the presence of the same element (the possessive suffix) would trigger different morphosyntactic effects in different situations, due to semantic reasons.

Regarding possessive noun phrases, I claim that the DP hypothesis makes better predictions which paradigm will be triggered, even though it suffers from a few problems itself.

### 2.4.3 *minden*

Coppock and Wechsler’s proposals regarding the quantifier *minden* ‘every’ is the final aspect of the morphological analysis I want to compare with the DP hypothesis. As we have seen above, noun phrases with *minden* trigger the subjective conjugation. This is interesting, because in some cases, these noun phrases pattern with phrases that trigger the objective conjugation, cf. the definiteness effect tests above in (80), p. 57.

Following Szabolcsi (1994), Coppock and Wechsler (2011: 20f.) pick up this line of thought but they also show that there is evidence that *minden* behaves like quantifiers that trigger the objective conjugation in crucial respects (recall example (82), p. 57, above). Coppock and Wechsler (2011) give similar examples to indicate that *minden* and the quantifier *valamennyi* ‘each’ (on one of its readings) have the same distribution.

- (90) a. a Mari {valamennyi, minden} kalap-ja  
the M. each every hat-3SG.PX  
‘each/every one of Mary’s hats’ (Coppock and Wechsler 2011: 20)

- b. (\*a) {valamennyi, minden} kalap-ja  
       the each            every    hat-3SG.PX  
       intended: ‘each/every one of her/his hats’

Coppock and Wechsler (2011: 21) take this to be evidence that “*minden* selects *a(z)*.” This argumentation is reminiscent of Szabolcsi (1994: 209ff.) who suggests that strings like *a minden kalapja* as in (90b) are not ungrammatical *per se*, but only because there is a prohibition of these types of determiners to appear without intervening material. Therefore there is no difference in meaning between (90a,b) or the sentences in (82) above. Because of the constant meaning, Szabolcsi (1994: 210f.) assumes that “*minden fiú* ‘every boy’ derives from \**a minden fiú* ‘the every boy’ via article deletion [...]”

Given these similarities in structure, Coppock and Wechsler (2011: 21) suggest that this “predicts that phrases like *minden kalap* should trigger the objective conjugation, because on Bartos’ theory, a DP is projected whenever *a(z)* is present in the structure, silently or overtly.” We are faced with another puzzle. If one accepts the DP hypothesis, the category of *minden* cannot be DP, but it is hard to come by evidence that the distribution of quantifiers like *valamennyi* ‘each’, triggering the objective conjugation, is different from that of *minden* ‘every’, triggering the subjective conjugation. Recall that in this respect, *minden* also differs from the numeral *három* and weak quantifiers like *néhány* in that these determiners are compatible with the article *a(z)* and there is a clear change in interpretation from indefinite to definite when it is added (e.g., *három könyv* ‘three children’ vs. *a három könyv* ‘the three children’, cf. again (82) for discussion).

Even if the rule that prohibits certain determiners to appear side by side were to be abandoned, Coppock and Wechsler (2011: 21) argue, the DP hypothesis would face the problem that determiners other than *minden* that trigger the objective conjugation would be left without a DP layer, the supposed trigger of the objective paradigm. This leads them to conclude that the trigger is not structural, but that each determiner is specified for either [+DEF] or not. *valamennyi* ‘each’, according to them, belongs to the former group, while *minden* ‘every’ does not. See Section 4.5.2 for a different explanation.

#### 2.4.4 Restrictions in person

Coppock and Wechsler (2010a) make an interesting proposal regarding the person restriction of Hungarian object agreement. The argument is based on the assumption that agreement morphemes develop from incorporated pronouns. It has been argued that this is the case in several Bantu languages, where this process can be seen to be at different stages of evolution. In Chicheŵa (cf. Bresnan and Mchombo 1987 and Section 3.5.1), an object marker on the verb is said to be derived from a pronoun. In other Bantu languages, e.g., Swahili or Rwanda, a similar development took place (cf. Givón 1976, Morimoto 2002). Crucial differences, however, lie in the properties of these respective morphemes. In Chicheŵa, as shown by Bresnan and Mchombo (1987), the presence of the object marker

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excludes the possibility that a coreferential object appears in the same phrase. In contrast, the subject, which is also expressed by a subject marker on the verb, can appear in the verb phrase (cf. Bresnan and Mchombo 1987 for details).

A possible explanation for this asymmetry is that the properties of the morphemes in question differ with respect to their referentiality. This means that while the subject marker in Chicheŵa is taken to be an agreement morpheme, the object marker is in fact a pronoun (cf. Bresnan and Mchombo 1987: 745). In the theoretical framework used by Bresnan and Mchombo (1987) and Coppock and Wechsler (2010a), this amounts to different specifications of the elements in question, as shown in Table 2.3 (cf. also Sells 1985: 152 for discussion).

Stage 1: Pronoun	Stage 2: Loss of reference	Stage 3: Loss of person
(↓PRED) = ‘pro’	(↓PRED) = ‘pro’	(↓PRED) = ‘pro’
(↓INDEX PERS) = <i>p</i>	(↓INDEX PERS) = <i>p</i>	(↓INDEX PERS) = <i>p</i>
(↓INDEX NUM) = <i>n</i>	(↓INDEX NUM) = <i>n</i>	(↓INDEX NUM) = <i>n</i>
(↓INDEX GEND) = <i>g</i>	(↓INDEX GEND) = <i>g</i>	(↓INDEX GEND) = <i>g</i>

Table 2.3.: Possible specification of object markers (Coppock and Wechsler 2010a: 4)

What is relevant is the difference in the PRED feature of stage 1 and stage 2. If an object marker has this feature (as in stage 1), a lexical object can not appear in the same phrase, since it obligatorily has a PRED specification and the two would clash. Stage 1 therefore represents a situation in which an object marker in verb morphology is not an agreement morpheme, but the object itself. Stage 2 represents the loss of reference of the incorporated pronoun, making it an agreement marker. The remaining specification describes which properties characterize the agreement between controller (subject or object) and target. The specification in stage 2 represents agreement in person, number and gender. In stage 3, a further specification is lost. Evidence for such feature loss can be found by comparing the agreement properties of agreement morphemes in the Bantu languages mentioned above.

Coppock and Wechsler (2010a) argue that a similar development can also explain the agreement in Hungarian and Northern Ostyak, where different specifications have been lost. In Northern Ostyak, where there is object agreement in number, but not in person (cf. Section 3.5.2, p. 92), two specifications of an original incorporated pronouns were lost, namely reference and the restriction to third person, while the specification for number was retained, as was a restriction to agree with topical objects (cf. the discussion above).

In Hungarian, agreement could be said to be in number (only third person) and, depending on the theory, with DPs or with the “formal grammatical feature” [DEF] (Coppock and Wechsler 2010a: 10). They argue that Hungarian object agreement was with



topics, as in Ostyak, but that this restriction was later reinterpreted as agreement with [DEF], resulting in the following specification:<sup>9</sup>

- (91) 
$$\begin{aligned} V_{aff} (\uparrow \text{OBJ}) &= \downarrow \\ (\downarrow \text{OBJ}) &= \text{'pro'} \\ (\downarrow_{\sigma} \text{DEF}) &= \text{TOPIC} (\uparrow \text{OBJ DEF} =_c +) \\ (\downarrow \text{INDEX PERS}) &= 3 \\ (\downarrow \text{INDEX NUM}) &= n \in \{\text{SG, DU, PL}\} \end{aligned}$$
 (Coppock and Wechsler 2010a: 10)

(91) suggests that the object conjugation in Hungarian appears whenever an object is third person and has the feature [DEF]. An advantage of this approach is that the lack of agreement with first and second person objects does not have to be ‘explained away’, since agreement is restricted to third person objects. There is a problem, however. As Coppock and Wechsler (2010a: 10) note, the objective conjugation is triggered by first and second person reflexive pronouns.

- (92) a. Lát-om/\*-ok                      magam-at.  
           see-1SG.OBJ/1SG.SUBJ myself-ACC  
           ‘I see myself.’  
       b. Lát-od/\*-sz                      magad-at.  
           see-2SG.OBJ/2SG.SUBJ yourself-ACC  
           ‘You see yourself.’

(92) shows that there is agreement with first and second person reflexive pronouns. Coppock and Wechsler (2010a: 10) suggest a solution: “We propose that the third person restriction was reanalyzed such that reflexive pronouns of all person values count as [DEF].” For other personal pronouns, first and second have no [DEF] feature, while third person pronouns do. This leads to a modification of (91), such that agreement in person is excluded, with DEF remaining as the only specification, as in (93):

- (93) 
$$\begin{aligned} V_{aff} (\uparrow \text{OBJ}) &= \downarrow \\ (\uparrow \text{OBJ DEF}) &=_c + \end{aligned}$$

While this analysis derives the correct distribution, there are some objections. The nature of the feature [DEF] is still not quite clear. Coppock and Wechsler (2010a: 10) state that it is a formal feature, not a semantic feature and that its presence depends “on the form of the object, but not its meaning.” This is similar to the DP analysis in that neither DP status nor the presence of [DEF] strictly correlate with semantic definiteness. A possible advantage of the DP hypothesis, however, is its treatment of possessive constructions. While the

<sup>9</sup>The subscript *c* with specification OBJ DEF means that this affix only appears when the object is valued + for the specification DEF, i.e., if the object has the feature [DEF].

objective conjugation is required with possessive objects in most cases, when there is variation, this variation has a structural correlate (cf. the discussion in Sections 2.4.2 and 2.4.5 above).

### 2.4.5 Possible objections

I have reviewed those aspects of Coppock and Wechsler's morphological analysis that were challenging for the DP hypothesis. These three areas were the analysis of and the approaches' predictions regarding complement clauses with *hogy*, possessive noun phrases and the quantifier *minden*. Again, I must tentatively suggest conclusions that are not very satisfying, since I tried to show that both hypotheses have their weak points.

Coppock and Wechsler's criticism of the DP hypothesis is quite effective when it comes to certain cases of objective verb morphology in combination with *hogy*-clauses. However, their own approach is equally problematic when *hogy*-clauses appear as the complement of verbs in the subjective conjugation, since the element *hogy*, due to its proposed [DEF] feature, should be the trigger of the objective paradigm. I argued that Bartos' explanation is not quite credible either, since it relies on unjustified assumptions.

The discussion of possessive noun phrases above suggested that the possessive morphemes do not necessarily make the noun phrase definite, but it might be the case that they are always specific (in the standard language, at least). The assumption that the possessive suffixes are the elements that bear a [DEF] feature is problematic in this respect, since in those dialects where we see a difference in interpretation, the presence of the feature [DEF] is not predictable by form, as suggested by Coppock and Wechsler, but it would depend on interpretation. For these cases, the DP hypothesis has a more powerful explanation, since interpretation and structure coincide.

The third aspect was the behavior of noun phrases with the quantifier *minden*. Here, proponents of the DP hypothesis are forced to suggest that *minden* does not project a DP, even though there is some evidence that this determiner actually patterns with those determiners that do trigger the objective conjugation. We have seen examples for this above, involving definiteness effects and Szabolcsi's (1994) rule of article deletion.

A piece of methodological criticism might also be in order. While Coppock and Wechsler suggest that the presence of the feature [DEF] is predictable by the form the relevant noun phrases, the evidence they present is not always satisfactory. For example, they claim that "[o]n the morphological analysis, the complementizer *hogy* 'that' is one of the forms that bears [DEF], so complement clauses are correctly predicted to trigger the definite conjugation" (Coppock and Wechsler 2011: 21). Even though much of their criticism is well-founded, independent evidence for why C is [DEF] is lacking. The same holds for possessive morphemes, as mentioned above.<sup>10</sup>

<sup>10</sup>There might be an argument for the inherent definiteness of possessive morphemes. In the common language, it is sometimes possible to omit the accusative suffix of direct objects, but only when the noun phrase is possessed, with a first or second person possessor. See the discussion in Section 4.2.1.

## 2.5 Summary and conclusions

The point of this chapter was to present a few recent theoretical analyses of the Hungarian verbal system. It should be clear that the terms *határozott ragozás* ‘definite conjugation’ and *általános ragozás* ‘general conjugation’, respectively, do not quite capture the essence of this phenomenon. We have seen that it is not only the case that it is not definite and indefinite noun phrases that co-occur with each conjugation, but that the question is far from settled.

The DP hypothesis, originally proposed by Bartos (1997) and elaborated on in Bartos (1999), is based on reasonable assumptions that link noun phrase structure with interpretation. The big advantage of this approach is that it does not necessarily rely on the notion of definiteness, but on syntactic structure. This is beneficial in some cases, since possessive constructions are not necessarily definite, but it is quite justified to attribute them more syntactic structure, even in the case of indefinite possessive constructions. I have argued that the dialectal data discussed in this chapter seem to provide evidence for this as well, since one could argue that the differences in interpretation coincide with differences in structure. The downside of this is that we are in need for an explanation of standard Hungarian, where *all* possessive constructions trigger the objective conjugation. See the detailed discussion of the examples in (78) (p. 54) above.

A more problematic mismatch between interpretation in structure concerns the quantifier *minden*. Regarding its categorial status, it is only the DP hypothesis’ assumptions that justify its status as a non-DP. Most independent evidence shows it to pattern with quantifiers that act like DPs, as shown by Coppock and Wechsler (2011), relying on insights by Szabolcsi (1994). It has to be noted, however, that Coppock and Wechsler, Coppock and Wechsler, Coppock and Wechsler’s (2009, 2011, 2010b) approach of listing which elements bear the feature [DEF], in this case *minden*, based on evidence from its behavior with respect to the verbal paradigms appears to be circular with respect to this quantifier. If it is the feature [DEF] that triggers the objective conjugation, but it is only the absence of this that suggests that *minden* lacks [DEF], we have not found a completely satisfying explanation. Even if this were true, the claim that it is predictable based on the form of an element whether it triggers the objective paradigm or not seems to be weakened.

The same objection holds for the argument that possessive suffixes have this feature, since the variation referred to above is hard to explain if the presence of [DEF] is taken to be predictable by form only.

As for complement clauses, a review of the data suggests that the situation is not as clear as proposed by Bartos (1999) and É. Kiss (2002) on the one hand, and by Coppock and Wechsler (2011) on the other. The latter do not mention cases where a complement clause triggers the subjective conjugation, while Bartos’ (1999) explanation for variation in verb morphology with respect to this type of complement lacks support from independent evidence.

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To conclude this chapter, both major approaches mentioned in this section succeed in explaining a good amount of data using reasonable assumptions and independent evidence (for the most part), but both also fail to give a full account of what kind of elements trigger the objective conjugation in Hungarian. Note that my goal in this chapter was not to find a definitive solution for the problems presented here, but to shed light on some of the phenomena involved in the choice of the right verb paradigm in Hungarian.

The insights gained here will be discussed in the following chapters, in relation to another phenomenon called differential object marking, the topic of Chapter 3.

## 3 Differential object marking

The topic of this chapter is a phenomenon known as differential object marking (or DOM). DOM is quite widespread cross-linguistically and has been studied for a great variety of languages from different families. I will give an overview of the main characteristics of DOM, illustrating these with examples from the literature, before presenting how DOM has been analyzed in formal frameworks in recent years. This chapter provides the background for Chapter 4, in which I apply the criteria introduced here to Hungarian.

### 3.1 What is DOM?

The term *differential object marking* is due to Georg Bossong, who named the concept and published several studies that illustrate the phenomenon across languages (cf. among others Bossong 1985, 1998). The basic concept underlying DOM is easily summed up: a language is said to have DOM if it does not mark all its direct objects in the same way. Details and differences in how languages exhibit this phenomenon are the main point of this chapter, but first, cf. (94), an illustration of a few languages with DOM.

(94) Spanish:

- a. Conozco \*(a) este actor.  
know.1SG DOM this actor  
'I know this actor.'
- b. Conozco (\*a) esta película.  
know.1SG DOM this film  
'I know this film.'

(von Heusinger and Kaiser 2011: 12)

In (94a), the verb *conocer* 'know' takes the animate (even human) direct object *este actor* 'this actor'. The parentheses with the asterisk indicate that the sentence would become ungrammatical if we would drop the marker *a* (the dative marker in Spanish).

(94b), on the other hand, would be ungrammatical if we were to *include* this marker. These examples suggest that the animacy of the object has something to do with its differential marking, since (94a) and (94b) are otherwise quite similar: since there is a demonstrative preceding the noun, both objects are definite and the verb form is the same.

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Another language with DOM is Turkish (cf. Enç 1991, von Heusinger and Kornfilt 2005). As (95) illustrates, animacy cannot be the property that triggers the differences in object marking in Turkish.

- (95) Turkish:
- a. (Ben) bir kitap oku-du-m.  
I a book read-PAST-1SG  
'I read a book.'
  - b. (Ben) bir kitab-ı oku-du-m.  
I a book-ACC read-PAST-1SG  
'I read a certain book.'
- (von Heusinger and Kornfilt 2005: 5)

The contrast in (95) is in a way even more subtle than the contrast in (94), since both (95a) and (95b) are made up from the same lexical material. An analysis referring to inherent features of these lexical items (such as animacy) will not help us here. The morphological difference, the presence of the accusative suffix *-ı* (IPA: [ɨ]) in (95b) correlates with a semantic difference. In (95b), the direct object *bir kitab-ı* 'a book-ACC' is interpreted as a specific indefinite, roughly 'a certain book'. The following example illustrates this difference again:

- (96) Turkish:<sup>1</sup>
- a. Odam-a birkaç çocuk girdi.  
my room-DAT several child entered  
'Several children entered my room.'
  - b. İki kız-ı tanıyordum.  
two girls-ACC I knew  
'I knew two girls.'
  - c. İki kız tanıyordum.  
two girls I knew  
'I knew two girls.'
- (Enç 1991: 6)

Again, (96b) and (96c) only differ in interpretation. Enç (1991) states that both are possible follow-up utterances to (96a), but the accusative marking on *kızı* 'girl-ACC' leads to a different interpretation. Enç (1991: 6) writes that "[ (96b) ] is about two girls who are included in the set of children, established by the utterance of [ (96a) ], that entered the room. [ (96c) ] is about two girls who are excluded from the original set of children." In other words, (96b) is interpreted as '*I knew two of them.*', *them* referring to the children mentioned in (96a) (simplifying, of course, since the Turkish sentence (96b) mentions

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<sup>1</sup>I have changed the spelling of these examples. Enç (1991) uses *i*, the phonetic spelling of Turkish letter *ı*, a central, high, unrounded vowel. I replaced this with *ı*, the orthographic spelling of this sound, to preserve consistency with the examples above. Consequently, I changed capital *I* to *İ*.

girls). The utterance (96c) can only be understood to refer to girls different from the ones mentioned. Keeping these examples in mind, I will sketch some typical properties of DOM in the following section.

## 3.2 Prominence scales

The phenomenon in question is quite widespread across languages from several language families and it shows very similar behavior in most cases. Bossong's (1985) main focus is on Iranian languages (Indo-European), but he mentions that DOM is also known in Slavic (Indo-European), Romance (Indo-European), Ugric (Finno-Ugric). As we have seen above, Turkish (Turkic) has DOM (cf. the references above), as have Hebrew (Semitic, cf. Danon 2006), Malayalam (Dravidian, cf. de Swart 2007), and (at least) one other Finno-Ugric language, Komi (Permic, cf. Klumpp 2009).

These languages have in common that some direct objects are marked morphologically, while others are not. We have seen in the examples above that it is not necessarily the same types of objects that are marked in different languages, but it is nevertheless possible to put forth generalizations regarding this marking, since the variation is not random.

In much of the literature on DOM, there is some reference to the concept of *prominence scales* or *hierarchies*. Bossong (1985: 12), for example, refers to a *reference scale* and an *inherence scale*. A reference scale orders noun phrases based on their definiteness, as shown in (97). Each point on this scale is a 'level' of definiteness; such lists are also called *definiteness scale* or *definiteness hierarchy*.

(97) Definite > Specific indefinite > Non-specific indefinite

The elements *inherence scale* (or *animacy scale*) are ordered by their animacy, i.e., human beings, especially the participants in the discourse, are the most animate entities, objects like rocks the least. Comrie (1986: 94) suggests the following animacy scale:

(98) 1st, 2nd person > Other human > Other animal > Inanimate

There is a crucial difference between the hierarchies in (97) and (98), that is hinted at in Bossong's naming the latter the *inherence scale*. While the interpretation of a noun phrase can vary from sentence to sentence, i.e., a direct object like *book* can be interpreted at any point in (97), animacy is an inherent property of entities. Humans are always animate, while rocks are always inanimate (although a language might have ways to make inanimate objects be interpreted as animate). This has some consequences in languages that have DOM based on both definiteness and animacy (cf. de Swart 2007 for discussion of DOM in Hindi).

Descriptively, the relevance of these scales for the marking of objects (and, in fact, subjects) can be seen by quoting Comrie (1986: 94): "As patients of transitive verbs, noun phrases higher in salience are more likely to have overt morphological marking, i.e. to

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appear in the accusative case.” He provides some empirical data, e.g., from Armenian (Indo-European) which only marks “transitive patients” with accusative if they are animate and definite (cf. Comrie 1986: 96). In the examples from Spanish and Turkish above, it was also the case that only those objects were marked morphologically that were relatively higher on the scale than their unmarked counterparts.

According to Comrie (1986: 96), such data point to the generalization that “less formal marking correlates with [...] a patient lower in salience.” Also, he states that one “can claim that for people the most natural situation is one in which the referent of the agent is relatively high in salience and the referent of the patient is relatively low in salience” (Comrie 1986: 97).

Also, there appear to be languages that exclude the possibility of inanimate subjects altogether—de Swart (2007: 79) cites Jacaletc (Mayan), Lakota (Siouan) and Japanese (see references there). In theory, it could be the case that languages randomly exclude certain types of subjects or objects; however, such restrictions are *not* random. Keenan (2008: 241) states that there is a “commonly acknowledged duality” that “[natural languages] allow definite subjects and may restrict subjects to definites.” This means that if a language has this kind of restriction, it is predictable which types of subjects are prohibited, namely those that are relatively low on the prominence scales mentioned above.

To summarize: so far, we have seen that there are many languages in which some but not all objects have morphological marking. In the examples shown above, marked objects were always more prominent in some way than unmarked ones. This prominence can be due to an inherent property (like animacy) or due to a contextual one (definiteness). In the relevant languages, morphologically unmarked direct objects are thus low in prominence. Subjects, on the other hand, tend to be prominent. There are languages that exclude inanimate subjects (see above) or indefinite subjects (cf. Keenan 2008 for a detailed account of which subjects are allowed and disallowed in Malagasy). As for the marking of subjects, Comrie (1986: 96) suggests that less marking on agents correlates with high salience. de Swart (2007: 75ff.) argues that the grammatical role of subject is often linked to animacy is related to the fact that subjects are often agents (in a linguistic sense, i.e., they have the semantic role of AGENT), which are usually animate.

- (99) Preliminary generalization:  
Prominent objects tend to be marked morphologically, while prominent subjects tend to be unmarked.<sup>2</sup> Also, subjects are sometimes restricted to be definite and/or animate, i.e., prominent.

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<sup>2</sup>Marked subjects can occur, e.g., in ergative languages. Comrie (1986: 94) writes that ergative marking in subjects correlates with low salience. I focus mostly on nominative/accusative languages, i.e., I will disregard differential subject marking.



### 3.3 A functional approach to DOM

The empirical data and the generalizations suggested above provide the background for one kind of explanation of DOM phenomena. I will first sketch what Haspelmath (2008c) calls a *functional* explanation of DOM. The basic question this explanation tries to answer is *why* DOM works as it does. Haspelmath (2008c: 21) states that “[f]unctionalists attempt to derive general properties of language from processing difficulty [...]”.

The following quote from Bossong (1985) illustrates this point of view:

“Es ist unmittelbar evident, daß ein Sprachsystem, in dem keinerlei grammatische Unterscheidbarkeit von Subjekt und Objekt mehr gegeben ist (positionelle Unterscheidung hat sich im iranischen Bereich, soweit ich sehe, kaum grammatikalisch verfestigt), funktional höchst unbefriedigend ist.”<sup>3</sup>  
(Bossong 1985: 13)

Given the data reviewed above, if subjects tend to be more prominent than objects, we do not necessarily expect that it is difficult to distinguish which noun phrase has which role in the sentence. However, I also mentioned that if there is differential morphological marking, it is generally present on prominent objects and non-prominent subjects. It seems, then, that those arguments are morphologically marked that have properties that are untypical for their grammatical role.

To illustrate what Bossong’s use of “functionally highly unsatisfactory” means, imagine a language that has no positional restrictions on arguments (i.e., every combination of ordering S, O, V is possible), does not have any case, subject or object marking and allows all kinds of subjects and objects (i.e., there are no restrictions based on definiteness or animacy, etc.). If we further ignore the possibility of the encoding of information structure properties (like topic, focus, etc.) by certain syntactic positions, such a language would in fact make it very hard to process sentences in which a transitive verb has two arguments that have the same properties (e.g., animacy and indefiniteness).

(100)     ARG1 VERB ARG2

Imagine that VERB in (100) is such a verb, i.e., it might mean something like *beat*, which involves an agent and a patient that can both be animate, indefinite, etc. (in opposition to a verb like *read*, which has a theme argument that is usually inanimate). If both arguments are also 3rd person, then, given our assumptions about this language, (100) would in fact be ambiguous with both arguments being equally plausible subjects and objects.

<sup>3</sup>“It is immediately evident that a linguistic system that does not distinguish subjects and objects with grammatical morphemes (as far as I know, positional distinction has barely been grammaticalized in Iranian languages) is functionally highly unsatisfactory.” I have translated Bossong’s *grammeme* as ‘grammatical morpheme’.

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We would not be able to decide what the correct interpretation is, i.e., whether ARG1 or ARG2 would be the subject, respectively.

Since such an ambiguity depends on many factors (syntactic structure, the lexical semantics of the verb in question, equal properties on both arguments), it is not clear to me whether ‘pure’ ambiguities of this kind frequently arise, shedding some doubt on the force of an approach to DOM that stresses the need to disambiguate grammatical functions (cf. also Næss 2004: 1188 for a similar argument; cf. de Swart 2007: 129f. for an example of disambiguation). Aissen (2003), reaching the same conclusion, writes:

“There may be cases in which DOM is motivated precisely by the need to disambiguate, but it is also clear that DOM is required in many instances where the absence of case-marking could not possibly lead to ambiguity.”  
(Aissen 2003: 437)

The data discussed above, however, clearly correlate the prominence of certain arguments and their morphological marking. So even if the need to disambiguate is not the ultimate motivation of DOM, the properties of the arguments play an important role. What DOM does, then, is differentiate subjects and objects, even if it is not necessarily the case that the grammatical roles could be misunderstood. Aissen (2003: 438) further mentions that this situation, in which opposite properties are marked (morphologically and in terms of *markedness*) for subjects and objects, respectively, is an instance of *markedness reversal*. In other words, *definiteness* is not a marked property *per se*, it is only marked for objects, since subjects are often definite.

Aissen (2003: 438) interprets these facts as pointing to the conclusion that DOM is *iconic* in that morphological marking correlates with (conceptual) markedness. This conceptual markedness is in a way ‘measured’ by the position of an object (or a subject, of course) on the relevant prominence scale in a language (cf. also the discussion of Comrie 1986 above). So far, the data I mentioned spoke of tendencies of how subjects and objects are marked. However, said prominence scales interact very strongly with DOM and the marking of prominent objects is quite regular. In fact, as Haspelmath (2008c: 18) suggests, it is an implicational universal that “[i]f a language has overt case marking for an object on a position on one of these scales, it also has overt object case marking for all higher positions.” This is compatible with all DOM languages discussed in Bossong (1985), Aissen (2003), etc.

This universal is worded relative to a position on a scale. This is necessary since DOM varies strongly in this respect across languages. As shown above, Turkish case marks specific indefinite direct objects, while in Hebrew, for example, it is definite direct objects that are preceded by the element *et*, but not indefinites (Danon 2006). In terms of DOM, then, these two languages differ in the lowest point on the definiteness scale that is a morphologically marked property. However, both languages mark all objects above their language-specific lowest marked point on a scale (this is suggested by Aissen 2003, Danon 2006 actually argues against this, see the discussion below).

In brief, it is empirically well supported that some languages mark prominent objects (prominence correlating with a high position on a relevant scale). These objects tend to be 'subject-like' in that they are marked in those cases in which they have properties typical of subjects. There are universal tendencies related to this marking. Bosson (1985: 5) mentions that he is unaware of languages that differentially mark non-objects while not marking direct objects differentially. On the other hand, as suggested in Aissen (2003) and Haspelmath (2008c), when some objects are marked, objects above them on the relevant scales are marked as well, while this is not necessarily the case for those below.

Whether this phenomenon arose from the need to disambiguate or merely to distinguish subject from object is not clear. From a functional point of view, one might argue that distinguishing 'unusual' objects from subjects helps the addressee with processing a sentence. That DOM serves to disambiguate structures, however, might be too strong a hypothesis. I suggested above that a situation in which ambiguity would arise depends from many factors that seem to me to be unlikely to occur often. Thus, in cases like (95) from Turkish above (*I read a (certain) book.*), the absence or presence of the case marker does surely not disambiguate the structure. While it helps distinguishing subject from object, this function is redundant in this case, since several other morphosyntactic and lexical factors serve this purpose. Whatever the 'cause' of DOM, the facts are quite clear and have to be accounted for. In the next section, I present a formal analysis of DOM phenomena proposed by Aissen (2003), which is based on some of the functional assumptions just introduced.

### 3.4 Aissen's (2003) formalization of DOM

Aissen's (2003) formal account of DOM in an Optimality Theory (OT) framework has been quite influential and is referenced and criticized in much of the later literature on DOM. This section follows her discussion very closely, deferring criticism to a later section.

In OT, a mechanism determines whether a linguistic object—in our case: the morphological form of a direct object—fits a certain context. This mechanism uses constraints that are ranked with respect to each other to filter out the optimal candidate that is chosen at the end (this will be illustrated below).

The constraints used to filter out direct object forms have to be motivated. Aissen (2003) combines several factors we have seen so far to build a constraint system that derives the correct forms of direct objects in languages with DOM. As suggested above, one of Aissen's (2003) insights is that DOM is iconic. As she puts it: "nominals which are marked *qua* objects are morphologically more complex than ones which are unmarked *qua* objects" (Aissen 2003: 438). This summarizes the idea that 'typical' objects, i.e., indefinite, inanimate ones tend to be morphologically unmarked, while prominent ones tend to be marked. Thus, for Aissen, iconicity is an aspect of DOM. The prominence scales

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we saw above are also crucial for an analysis of DOM, since which objects are marked depends on properties on a certain point on a given prominence scale. Finally, we have to remember the fact that what is marked for subjects (i.e. low prominence) is unmarked for objects and *vice versa* (markedness reversal).

To get the correct constraints for DOM, Aissen (2003) makes use of a few concepts introduced in an OT analysis of the so called sonority hierarchy (cf. Aissen 2003: 440f. for details and references). In the account she adapts for her purposes, a process called *harmonic alignment* is used to link certain different scales to each other. One of these scales has two elements. The higher element of this scale is then combined with each element from the second one from left to right, while the lower element is combined with each element from the second one from right to left, resulting in two scales.

This can be illustrated the following way. The two-element scale is what Aissen (2003) calls the *relational scale*. It includes subject and object:

(101) Relational Scale: Su(bject) > Object (Oj) (Aissen 2003: 442)

The second scale we use here is the definiteness scale (cf. (97) above; the scale in (102) is expanded to cover more types of objects).

(102) Definiteness Scale:  
Personal pronoun > Proper name > Definite NP > Indefinite specific NP > Non-specific NP  
(Aissen 2003: 437)

Applying *harmonic alignment* to these scales, Aissen (2003) derives the following scales that show what combine prominence and markedness of its elements (> expressing higher prominence, while > expresses lower markedness).

(103) a. Su/Pro > Su/PN > Su/Def > Su/Spec > Su/NSpec  
b. Oj/NSpec > Oj/Spec > Oj/Def > Oj/PN > Oj/Pro (Aissen 2003: 445)

The scales in (103), for subjects and objects, respectively, illustrate the notion that highly prominent subjects are less marked than subjects of lesser prominence, while the opposite is true for objects: the least marked object is a non-specific indefinite object.

This might seem overly technical, but recall that there are languages that disallow subjects and objects with certain properties (above, I mentioned inanimate subjects, Keenan (2008: 249) shows that Malagasy disallows bare noun subjects, always interpreted as indefinite). Conversely, Aissen (2003: 445f.) mentions that Chamorro (Austronesian), Mam (Mayan) and Halkomelem (Salish) disallow third person pronoun objects when the subject is not a pronoun, while Tagalog (Philippine, Austronesian) disallows patients (in the semantic sense) that are definite objects; they have to be subjects.

What we see is that the scales in (103) represent empirical generalizations. Given the mechanisms of OT, in order to restrict the appearance of marked subjects and objects,

however, the scales have to be reversed, so that the highest constraint for objects is \*OJ/PRO, a constraint which disallows a personal pronoun as a direct object. The two constraint hierarchies derived from (103) thus have the following form:

- (104) a. \*SU/NSPEC >> \*SU/SPEC >> \*SU/DEF >> \*SU/PN >> \*SU/PRO  
 b. \*OJ/PRO >> \*OJ/PN >> \*OJ/DEF >> \*OJ/SPEC >> \*OJ/NSPEC  
 (Aissen 2003: 445)

(104b) means that the most marked direct object is a personal pronoun, followed by a proper name (PN), a definite NP, etc. The reverse holds for subjects ((104a)). Now, if these were the only constraints that influenced the form of subjects and objects, we would expect subjects to be pronouns and objects to be non-specific indefinites in every case. However, as Aissen (2003: 446) notes, “DOM arises precisely when these marked associations are *not* avoided.” Languages do allow marked elements to appear, but it is exactly these that show the morphological marking of DOM. Again, this is an empirical observation that can be implemented in the analysis in question. Aissen (2003: 447) introduces a further constraint, called \* $\emptyset_C$  (‘star zero’), which “penalizes the absence of a value for the feature CASE.” If such a value is absent, there is no phonological expression, i.e., no overt case suffix (or preposition as in Spanish and Hindi). This results in a morphologically unmarked direct object.

Given that it is prominent objects (i.e., *marked* objects) that are usually morphologically marked as well, Aissen (2003: 447f.) suggests that the constraint \* $\emptyset_C$  should apply especially to highly prominent objects. One way to achieve this is to combine \* $\emptyset_C$  with the constraints in (104), resulting in, e.g., \*OJ/PRO & \* $\emptyset_C$ .<sup>4</sup> This is a constraint that penalizes personal pronoun direct objects without a specification for case, i.e., without case morphology (and its overt expression). In this sense, it is an iconicity constraint, since it “favor[s] morphological marks for marked configurations” (Aissen 2003: 448). The constraint hierarchy for objects including \* $\emptyset_C$  looks as follows:

- (105) \*OJ/PRO & \* $\emptyset_C$  >> \*OJ/PN & \* $\emptyset_C$  >> \*OJ/DEF & \* $\emptyset_C$  >> \*OJ/SPEC & \* $\emptyset_C$   
 >> \*OJ/NSPEC & \* $\emptyset_C$  (Aissen 2003: 448)

So far, only lack of morphological marking is constrained so all forms will appear without any morphological mark. For this reason, Aissen (2003: 448) introduces one more constraint, an economy constraint that penalizes the *presence* of case morphology: \*STRUC<sub>C</sub>. This constraint will give us *differential* object marking. Aissen (2003: 448f.) states:

“\*STRUC<sub>C</sub> can be interpolated at any point in the subhierarchies in [(105)], ‘turning off’ case-marking of all object types mentioned in the dominated constraints. However, there is no way that a less prominent object can be case-marked if more prominent ones are not case-marked.”

<sup>4</sup>This process is called *local constraint conjunction*. See Aissen (2003: 447) for details.

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Table 3.1 illustrates this interpolation of \*STRUC<sub>C</sub> and the other constraints. Note that this is not only an implementation of the prohibition of marking less prominent objects without marking more prominent objects, but the position of \*STRUC<sub>C</sub> on the constraint hierarchy also derives cross-linguistic variation. As mentioned above, Hebrew marks all direct objects that are definite (or higher) with the marker *et*. Turkish marks specific indefinites (or higher) with accusative case. Table 3.1 shows that this is due to the position of \*STRUC<sub>C</sub> relative to the other elements on the hierarchy.

*OJ/PRO & *Ø <sub>C</sub>	
*OJ/PN & *Ø <sub>C</sub>	
*OJ/DEF & *Ø <sub>C</sub>	← *STRUC <sub>C</sub> in Hebrew
*OJ/SPEC & *Ø <sub>C</sub>	← *STRUC <sub>C</sub> in Turkish
*OJ/NSPEC & *Ø <sub>C</sub>	

Table 3.1.: The position of \*STRUC<sub>C</sub> in Hebrew and Turkish (cf. Aissen 2003: 450)

The position of \*STRUC<sub>C</sub> in Table 3.1 accounts for the fact that Hebrew marks direct objects only beginning with definite ones, while Turkish also marks indefinite specific direct objects. Table 3.1 and the following tableau (Table 3.2) should make clear how Aissen's (2003) approach accounts for the correct morphological form of the direct object in Turkish.

ROLE: PATIENT DEF: SPECIFIC, INDEFINITE	*OJ/DEF & *Ø <sub>C</sub>	*OJ/SPEC & *Ø <sub>C</sub>	*STRUC <sub>C</sub>	*OJ/NSPEC & *Ø <sub>C</sub>
☞ GF: OJ DEF: SPECIFIC, INDEFINITE CASE: ACC			*	
GF: OJ DEF: SPECIFIC, INDEFINITE CASE:		*!		

Table 3.2.: Ranking of constraints for Turkish (Aissen 2003: 455)

Table 3.2 shows the selection of an optimal output for a direct object that is supposed to be a specific indefinite patient (see the top left corner). There are two candidates: both are specific indefinites, the difference being that one is specified for accusative case,

while the other is not. Given the ranking of constraints in Turkish, none of these objects violate the constraint on definite objects without case (\*OJ/DEF & \*Ø<sub>C</sub>). The candidate not specified for accusative, however, violates the next one: \*OJ/SPEC & \*Ø<sub>C</sub>. That the other, winning, candidate violates another constraint does not matter; it is the remaining form and Aissen (2003: 455) states that “this violation is necessary in order to ensure compliance with \*OJ/SPEC & \*Ø<sub>C</sub>, a higher ranked constraint.”

Finally, to illustrate the difference between Turkish and Hebrew, see Table 3.3. As mentioned above, differences in which objects are marked on a given constraint hierarchy can be formalized in Aissen's (2003) system by positioning \*STRUC<sub>C</sub> higher or lower on that hierarchy.

ROLE: PATIENT DEF: SPECIFIC, INDEFINITE	*OJ/DEF & *Ø <sub>C</sub>	*STRUC <sub>C</sub>	*OJ/SPEC & *Ø <sub>C</sub>	*OJ/NSPEC & *Ø <sub>C</sub>
GF: OJ DEF: SPECIFIC, INDEFINITE CASE: ACC		*!		
עֵשׂ GF: OJ DEF: SPECIFIC, INDEFINITE CASE:			*	

Table 3.3.: Ranking of constraints for Hebrew (Aissen 2003: 455)

In Table 3.3, \*STRUC<sub>C</sub> comes before \*OJ/SPEC & \*Ø<sub>C</sub>, so a specific indefinite candidate that is marked for accusative case violates the constraint that penalizes case. The other candidate is not case marked and the lower constraint violation does not matter.

This ordering of the constraint \*STRUC<sub>C</sub> relative to a fixed constraint hierarchy for objects thus successfully derives how a language can mark all objects that are definite or higher (Hebrew) or specific indefinite or higher (Turkish).

So far, I have discussed DOM based on a single property, namely definiteness (animacy can also be the single relevant property). Aissen (2003: 449) refers to DOM systems like this as “one-dimensional DOM.” A system where two properties (e.g., animacy *and* definiteness) are involved in DOM can thus be referred to as ‘two-dimensional’. Aissen (2003) mentions *inter alia* Spanish and Hindi as languages that have two-dimensional DOM based on animacy and definiteness (see some discussion below). I will not go into details, since the basic properties of such systems are similar, but the constraints involved are obviously more complex. In what follows, I will focus on one-dimensional DOM.

## Summary

Aissen's (2003) goal is to take the insights that functionally oriented linguists have reached on DOM and to implement them in a formal system that is widely used. Empirical studies suggest that differential case marking is not random, rather, it is closely tied

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to prominence hierarchies based on, e.g., definiteness and/or animacy. These hierarchies are straightforwardly implemented as constraint hierarchies in Optimality Theory; the presence or absence of morphological marking is a result of the interaction of two more, quite different constraints:  $\ast\emptyset_C$ , which, roughly, penalizes the lack of case morphology, and  $\ast\text{STRUC}_C$ , which does the opposite, it penalizes the presence of case morphology. The position of  $\ast\text{STRUC}_C$  on a constraint hierarchy determines which objects appear with morphological marking and which do not. In principle, this system also easily models non-differential case marking systems; Aissen (2003: 455) notes that in written Japanese, every direct object is case marked. She suggests that ranking  $\ast\text{STRUC}_C$  below all other constraints derives this system.

Why are there two constraints with roughly the opposite function?  $\emptyset_C$  is referred to by Aissen (2003) as an iconicity constraint. It represents the notion that a *marked* (untypical) element, e.g., a definite object, is also marked morphologically. This marking, Aissen (2003: 446) claims, is “*privative*: zero expression contrasts with audible expression.” In the languages mentioned above, this has in fact been the case.

The following list summarizes a few important characteristics of Aissen’s (2003) to DOM:

**Markedness** Subjects and objects have different typical properties. Some languages disallow subjects of low prominence, but objects of higher prominence, such as definite or animate objects. What is marked for subjects is unmarked for objects and *vice versa*.

**Iconicity** Languages often mark prominent object with extra morphological structure. For Aissen (2003), this reflects some principle of *iconicity*. The more untypical a structure, the more likely it is marked morphologically.

**Privative marking** The differential morphological marking is privative: zero morphology contrasts with non-zero morphology, e.g., in Hebrew, the prepositional marker *et* is either present or not.

**Economy** The correct distribution of morphological marking in a given language can be derived from the interaction of constraints that are ranked relatively to each other: an economy constraint,  $\ast\text{STRUC}_C$  can prevent case to appear on every type of object.

**Universality** Aissen (2003), and others, suggest that it is universally true that if a language case marks a certain element on a scale, then it case marks all elements above it as well.

This approach to DOM has been criticized in various ways. In the following section, I will reflect this criticism to give in order to give a more balanced representation of DOM.



### 3.4.1 Criticism

The formal account sketched above has been criticized on several grounds, including its reliance on scales (Carnie 2005), its reference to the concept of markedness (Næss 2004, Haspelmath 2006, 2008b) and the issue of privative differential marking (Keine and Müller 2008). Also, the claim that there are no 'gaps' in case marking on hierarchies (i.e., everything upward from a given lowest point is marked if that point is marked as well), has been challenged based on data from languages that seem not to comply to this rule (Filimonova 2005). Finally, aspects of Aissen's (2003) treatment of DOM in certain languages have been refined (cf. de Swart and de Hoop 2007 and de Swart 2007 on Hindi). I will discuss these objections in turn.

#### Markedness

Haspelmath (2006) is a general critique of the use of the term *markedness* in much of the linguistic literature. The author argues that it covers a range of (slightly) different concepts. In some cases, he argues, the use of a more transparent expression is useful: 'rare' or 'frequent' instead of '(un)typical' or '(un)usual' (cf. Haspelmath 2006: 33). In markedness terms, this usage of marked refers to "textual markedness" (Haspelmath 2006: 26), i.e., the low frequency of a certain element in language. Aissen (2003) is a case in point of how the use of the term marked might not be quite transparent.

Take the notions of prominent object and non-prominent subject. Following Haspelmath (2006), they fall in the category of textual markedness (or rarity in texts), since it has been argued that definite/animate objects tend to be less frequent than indefinite/inanimate objects (cf. also Haspelmath 2008a: 14). On the other hand, Aissen's (2003) use of 'marked' suggests that a different kind of markedness also plays a role: she states that "exactly what is marked for objects is unmarked for subjects, and vice versa" (Aissen 2003: 438). Of course, this could simply mean that the properties that rarely fit objects frequently fit subjects, but the wording seems to imply that reference is made to the properties themselves, not only the frequency of the phrase carrying them.

As shown above, Aissen (2003) argues that these (rare) types of direct objects are more likely to be morphologically (or formally, as Haspelmath 2006: 26 puts it) marked, which means that they are morphologically more complex than their more frequent counterparts, so that rarity and morphological complexity correlate (which is basically a rewording of Aissen's iconicity). In her OT implementation, the morphologically complex forms are the result of the interaction of different constraints based on iconicity and economy. The economy constraint \*STRUC<sub>C</sub> prevents that everything is case marked. Haspelmath (2008c: 14) argues that iconicity is not needed: "Due to economic motivation, the rarer elements tend to be overtly coded."

Zeevat and Jäger (2002) and Jäger (2004) combine Aissen's (2003) insights with Haspelmath's criticism. They cite various corpora that substantiate the relative frequency of animate/definite subjects and inanimate/indefinite objects. Jäger (2004) creates a fairly

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detailed OT implementation that I will not comment extensively. Suffice it to say that it is also based on the functional assumptions mentioned above, i.e., case marking can help to distinguish grammatical relations from one another (which implies that it can disambiguate them if necessary). Since Jäger (2004) appeals to the frequency of certain types of grammatical relations instead of their markedness, his theory is probably immune to criticism directed against markedness and markedness reversal for subjects and objects as proposed by Aissen (2003); see Næss (2004) for such criticism.

#### Privative marking

As seen above, Aissen (2003) suggested that the morphological alternation is privative, i.e., zero expression contrasts with overt morphology. We have seen some examples for this: Spanish *a* vs. zero, Hebrew *et* vs. zero, Turkish -ACC<sup>5</sup> vs. zero, etc.

Keine and Müller (2008) argue, however, that this is not always the case. They argue correctly that Aissen's (2003) implementation of constraints lead to a situation where a case feature that is responsible for the morphological coding is either present on a noun phrase or not. This is due to some constraints being conjoined with  $\ast\emptyset_C$  which constrains the absence of case altogether, while  $\ast\text{STRUC}_C$  constrains the presence of case. Keine and Müller (2008) present evidence that not all languages with DOM exhibit a zero/non-zero alternation. Their solution involves the concept of *impoverishment* from Distributed Morphology (DM, Halle and Marantz 1993). In this morphological theory (and others) vocabulary items (roughly, morphemes) that are inserted into the syntactic structures are bundles of features. Impoverishment can delete single features of a vocabulary item instead of constraining the presence of the whole bundle (which is the case in Aissen's (2003)) approach.

Now, it might be the case in a given position that the possible alternation is not privative. This is the empirical contribution of Keine and Müller (2008). One language they claim to have a non-zero/non-zero DOM-like alternation is Mannheim German (Keine and Müller 2008: 113ff.). Mannheim German differs from the standard variety in that accusative is not marked on the definite article in a direct object noun phrase, cf. (106).

- (106) Hol mir mal [<sub>DP</sub> der Eimer]  
fetch me PRT the-NOM bucket  
'Get me the bucket.' (Keine and Müller 2008: 114, my translation)

In Standard German, the article *der* would appear bearing accusative case, as *den* (since *Eimer* is masculine). Mannheim German, however, apparently only case marks pronouns, so (107), meaning basically the same as (106), has the accusative form *en* as opposed to *er*.

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<sup>5</sup>In the examples above, this suffix was realized as  $\iota$  ([i]). Due to vowel harmony and other morphophonological processes, it can be realized differently.

- (107) Hol en/\*er                      mir      mal her.  
 fetch he-ACC/\*he-NOM me-DAT PRT PRT  
 'Get it.'                                      (Keine and Müller 2008: 114, my translation)

The feature bundle /n/ (the accusative vocabulary item) is more specific than /r/, the one for nominative. Both have a [+masc] feature, but /n/ also has [+gov], a "primitive case feature" (Keine and Müller 2008: 101). Their constraint \*[+gov] is analogous to Aissen's (2003) \*STRUC<sub>C</sub>, but \*[+gov] can delete not only a whole feature bundle but the single feature [+gov]. If [+gov] is deleted from the bundle [+gov, +masc] (/n/), obviously [+masc] (/r/) remains. As (106) and (107) show, the form /n/ is inserted only when the object is expressed as a pronoun. This suggests that the constraint \*[+gov] is ranked below the constraint penalizing the absence of case on pronoun objects, but above the other constraints (in Aissen's (2003) terms, \*[+gov] would be higher than \*OJ/PN & \*Ø<sub>C</sub> and the constraints below it; in Keine and Müller's (2008) terms, \*[+gov] is ranked above \*OJ/PN & Max-C, which is an analogous constraint). This way, Keine and Müller (2008) derive a non-zero/non-zero alternation by the deletion of a single feature.

Recall that one aspect of Aissen's (2003) approach to DOM was iconicity. In her constraint system, it is straightforwardly possible to derive the correlation between marked (or less frequent) types of direct objects (such as definite objects, or pronouns) and their morphological marking. If we take the above criticism into account, we should replace 'morphological markedness' with overt coding (cf. Haspelmath 2006: 26). A case marked noun is obviously overtly coded, while a non-marked non is not. However, in the alternation /r/:/n/, both elements are overtly coded for case.

Such alternations are not as easily seen to be iconic as Aissen's zero/non-zero alternations. Nevertheless, Keine and Müller (2008) decide to keep iconicity as part of their explanation, where iconicity can be based on sonority, for example (cf. Keine and Müller 2008: 129). In general, the concept of zero/non-zero in terms of iconicity is replaced with less/more. Referring back to Haspelmath's (2006) criticism once more, it might be possible to do away with the inclusion of iconicity altogether, his suggestion being that less frequent types of direct objects are marked for economic reasons (pronoun direct objects being less frequent as has been argued above and throughout the literature).

In brief, there is evidence that DOM is not marked in terms of zero/non-zero alternations but that it can be expressed in less/more alternations. Iconicity might not be a necessary part of a theoretic account of DOM.

## Universality

Several aspects of DOM have been claimed to be potentially universally valid. Bossong (1985) suggests that a language only has differential subject marking if it also has differential object marking (a typical implicational universal); we shall not be concerned with this suggestion. A second universal related to DOM that has been proposed is that if a

language with DOM shows overt morphology on a certain level of a prominence scale, objects above that point will also be marked (cf. Haspelmath 2008c: 18, for data see the languages discussed in Aissen 2003).

If this universal holds, there are at least two consequences. Since every element above a certain point has overt morphology (as illustrated in (108a)), first, there should be no gaps in a hierarchy, and second, the overt coding should always ‘reach the top’. (108b) should be excluded in general, while (108c) would be unexpected for objects (for subjects, we would expect the inverse hierarchy not to hold, since some languages mark subjects low in prominence, cf. again Filimonova 2005: 82).

- (108) a. Prominence hierarchy  $P_1$ :  
E1 (overt case) > E2 (overt case) > E3 (no marking) > E4 (no marking)
- b. \*Prominence hierarchy  $P_2$  (gap):  
E1 (overt case) > **E2 (no marking)** > E3 (overt case) > E4 (no marking)
- c. \*Prominence hierarchy  $P_3$  (inverse):  
E1 (no marking) > E2 (no marking) > **E3 (overt case)** > **E4 (overt case)**

As for (108b), Filimonova (2005: 95) points out that “[b]reaks in the case patterning appear to be rare”, Waris (Papua New Guinea) being a possible candidate. It has a case marker *-m* that can mark various types of objects, e.g., “animate patients or benefactives to distinguish them from agents” (Filimonova 2005: 95), but it “also occurs with subjects of intransitive verbs” (p. 96). So whether one should interpret this marker as a direct object marker or not is not quite clear. Its distribution, however, is claimed to be quite untypical. Filimonova (2005: 97) cites lectures by William Foley as the source of the following distribution of *-m*:

Summing up, evidence for violations of type (108b), i.e., gaps in the hierarchy, is sparse. (108c) is arguably a more frequent (albeit still rare) phenomenon. Filimonova (2005: 98) draws the following conclusions about the violations she encountered. (The Waris data

are not taken into account because of the minimal available evidence.) Languages violating (108c), i.e., languages that mark objects inversely, the exceptional items are always pronouns. In addition, Filimonova (2005: 98) claims that some languages with unmarked object pronouns “are undergoing a realignment from ergative via tripartite to accusative systems.” Pronouns, she argues, retain the earlier ergative pattern, in which direct objects of transitive verbs are unmarked. The situation for Nganasan and Georgian is different, but there might be morphosyntactic reasons why they do not case mark pronouns, both languages having “well developed systems of cross-reference” (Filimonova 2005: 98).

It might not be a big surprise that there appear to be counterexamples to a proposed language universal — still, I doubt that the evidence presented by Filimonova (2005) suffices to deny the force of the generalization that a language marks grammatical relations continuously. It is possible, as Filimonova (2005: 98) suggests, that languages start realigning their case systems from the lower points of a hierarchy. If so, violations of continuity in the pronominal system might not be as severe as in a pure nominative/accusative language. Without going into further detail, it should be noted that such violations are of course hard to explain with Aissen's (2003) implementation of constraint hierarchies. The status of the underlying scales of such an approach is the target of the following criticism.

### Scales

Carnie (2005) raises the question of the grammatical status of the relational hierarchies used in Aissen (2003). He argues that they “tend to be merely post-factum descriptive statements of grammatical tendencies” (Carnie 2005: 40). Of course, Aissen (2003) uses these hierarchies in order to develop a formal analysis of DOM, but Carnie (2005) goes on to state:

“I'm not at all convinced that grammatical constructs “derived from” non-grammatical descriptions provide solid basis for grammatical theory. In the phonology literature prominence scales, such the sonority scale [sic], are grounded in instrumental phonetics. The grounding of typologically significant, but nonetheless non-absolute, relational hierarchies is much more difficult.”  
(Carnie 2005: 44)

He also argues against the Aissen's assumption that what is unmarked (in the sense of ‘common’ or ‘frequent’) is not always morphologically coded (her iconicity), but can be expressed by word order as well. Carnie suggests that her representation of some of the data is not quite exact; I will not go into this further, cf. Carnie (2005: 44f.) for details.

Carnie (2005) works in a generative framework, i.e., his assumptions about grammar are quite different from those of functionalists (w.r.t. to DOM, this includes the literature Bossong 1985, Haspelmath 2006, 2008c,a, Jäger 2004, Zeevat and Jäger 2002, and probably also Aissen 2003). He stresses a point that Aissen (2003: 474f.) herself mentions. Under the heading “Other Expressions of Markedness Reversal” (p. 474), she briefly discusses

the phenomenon of *object shift*, the movement of certain objects to a higher structural position (where higher often means more to the left).

In object shift phenomena, it is often the case that not every type of object can shift, but mostly definites/animates, etc., roughly the same types of objects that tend to be marked in DOM systems. Carnie (2005: 47) also mentions object shift, in particular to stress the fact that, as just mentioned, it is not always morphology that can code the prominence of an object, but also word order. In his view, which is presented in more detail in Jelinek and Carnie (2003), it is a fact of the relation of syntax and semantics that definite noun phrases are structurally more prominent than indefinites. Jelinek and Carnie (2003) provide evidence from a number of languages where prominence in Aissen's (2003) sense, i.e., definiteness, animacy, etc., correlate with structural prominence. The background for this hypothesis is detailed in Diesing (1992), for example.

The theoretical status of this proposal is different than the assumption of prominence scales and using them to derive constraint hierarchies, however. Aissen's hierarchies are based on markedness, or frequency, i.e., which is of course a descriptive statement (a term which I use neutrally). In Jelinek and Carnie's (2003) view, the structural prominence of certain types of objects is a fact valid for all languages, which is only expressed in different ways (with variation consisting, for example, in the expression of case morphology; structural prominence should be universal). Their assumptions are based on the so called mapping principle, which links syntactic structure and semantic interpretation in a direct way (cf. Diesing 1992, Jelinek and Carnie 2003: 267). For Jelinek and Carnie (2003: 293), this principle is part of the grammar, i.e., difference in coding of definite and indefinite objects would not follow from the frequency or the markedness of definite objects (*mutatis mutandis*, the same should hold for subjects), but from the principle that definite noun phrases are interpreted structurally higher than indefinite noun phrases. This structural prominence is, of course, related to word order, case marking, etc. If true, such an approach can do without reference to prominence scales, markedness and constraint hierarchies. A generative approach of this kind is also not concerned with the addressee's ease of interpretation.

#### 3.4.2 Summary

The point of this section was to introduce Aissen's (2003) analysis of DOM. Her proposal has been very influential but at the same time the target of much criticism—which I hope has been clearly shown. In the following section, this criticism will be kept in mind when analyzing a slightly different kind of DOM, viz. DOM that is expressed in verb morphology and not on the object noun phrase. A more detailed summary of the properties of DOM will conclude this chapter.

### 3.5 DOM in verb morphology

In this section I will focus first on an analysis of DOM in Bantu languages that is very much in line with Aissen (2003) before discussing object agreement in Northern Ostyak (Finno-Ugric, based on Nikolaeva 1999, 2001) which I argue follows the principles introduced in the previous sections and thus constitutes an instance of DOM (though not analyzed as such in the literature). The most obvious difference between these languages and the languages discussed above (and, in fact, in most of the literature on DOM) is that in Bantu languages and Northern Ostyak the differential marking is not (only) expressed on or by the direct object noun phrase but (also) in verb morphology.

### 3.5.1 Bantu

This section is based mostly on Morimoto’s (2002) study of DOM in several Bantu languages. Morimoto takes the term ‘object marking’ to cover a wider area of phenomena than just marking a noun phrase (as in Spanish) or case marking a noun, including marking object marking in verb morphology. Several Bantu languages have morphemes that attach to verbs in the presence of certain objects (these are glossed as OM, subject markers as SM).

In several Bantu languages the presence of an object alone is not enough to trigger the object marker. Morimoto (2002: 294) suggests that its presence is influenced by animacy and definiteness, on the one hand, but also word order and the topicality of the object, on the other hand. First, let us take a look at topicality. An elaborate study of the object marker in the Bantu language Chicheŵa was published by Bresnan and Mchombo (1987). These authors illustrate that the appearance of the object marker is rather restricted. Take the following examples:

- (110) Njûchi zi-nâ-lúm-a alenje.  
 bees SM-PAST-bite-INDIC hunters  
 ‘The bees bit the hunters.’ (Bresnan and Mchombo 1987: 744)

The crucial facts about (110) are that there is no object marker and that the object immediately follows the verb. In such transitive sentences, consisting of a subject (S), an object (O) and a verb (V), six possible orderings of these three elements are possible. However, as Bresnan and Mchombo (1987: 744f.) argue, when there is no object marker, the object has to follow the verb, i.e., OVS, VSO, SOV and OSV are not possible.

Using (111), they go on to show that when the object marker *is* present, every possible ordering is allowed.

- (111) Njûchi zi-ná-wá-lum-a alenje.  
 bees SM-PAST-OM-bite-INDIC hunters  
 ‘The bees bit them, the hunters.’ (Bresnan and Mchombo 1987: 745)

### 3 Differential object marking

Bresnan and Mchombo (1987: 746) suggest that the object marker is not an agreement morpheme, but rather an incorporated object that excludes the presence of an object NP in the verb phrase, accounting for the word order restrictions without the object marker. The object noun phrase (*alenje* in (111)), then, Bresnan and Mchombo (1987: *ibid.*) claim, “is not really an object, but a topic, as hinted at in [the] translation.” This topic binds the object marker present on the verb. An agreement marker, in contrast to the object marker, has no reference on its own. The development of such markers into object agreement markers is attested (cf. Givón 1976, Bresnan and Mchombo 1987: 777).

With respect to DOM in the languages discussed so far, Chicheŵa is interesting in several ways: as suggested above, its ‘differential’ marking is expressed on the verb. In addition, the language lacks case marking (cf. Bresnan and Mchombo 1987: 766) and the property that the differential marking is sensitive to is topicality.

Morimoto (2002) analyses other Bantu languages as well. She notes that object marking in both Makua and Swahili is sensitive to animacy (cf. Morimoto 2002: 296 for examples), with both languages conforming to the hypothesis that more prominent objects are overtly coded. Sensitivity to definiteness can be observed in Kichaga (cf. Morimoto 2002: *ibid.*), Kiyaka (p. 297) and Kihung’an (p. 298). See the following examples from Kiyaka:

- (112) a. \*tu-telelé      Maafú.  
           2SM-call.PAST M.  
           intended: ‘We called Maafú.’  
       b. ba-aná ba-n’-súumb-idi khoomboó  
           2child 2SM-1OM-buy-P 1goat  
           ‘The children bought the goat.’  
       c. ba-aná ba-suúmb-idi khoomboó  
           2child 2SM-buy-P 1goat  
           ‘The children bought a/the goat.’

(Kidima 1987, cited in Morimoto 2002: 297)

(112a) is ungrammatical since the object, the proper name *Maafú*, obligatorily triggers the presence of the object marker; this is not the case for definite NPs, as illustrated in (112b,c). However, an indefinite interpretation is only possible without the object marker (cf. Morimoto 2002: 297). Morimoto’s concludes about these data:

“To summarize, based the core data [sic] presented in this section, we can draw the following generalizations: (i) Bantu object marking is conditioned by animacy and definiteness, just as in DOM in case marking languages, and hence these phenomena deserve a unified account; [...]

(Morimoto 2002: 299f.)

While Morimoto (2002) makes a few modifications to Aissen’s (2003) proposal, her analysis of these forms is also based on constraint hierarchies in OT. Morimoto’s modifications



mainly concern how one derives the necessary constraints and the conceptual status of *iconicity* and *economy*. Without going into details, Morimoto’s constraint hierarchy for the marking of definite objects is shown in (113).

- (113)  $C_{[+h]}: * [+hr]/NSpec \gg * [+hr]/IndefSpec \gg * [+hr]/Def \gg * [+hr]/Name$   
 $\gg * [+hr]/Pro$  (Morimoto 2002: 308)

$[+hr]$  is a feature that identifies accusative case (*hr* meaning ‘higher role’, i.e., that there is a higher thematic role that is assigned another case, in this case a nominative subject, cf. Morimoto 2002: 305ff. for details). The constraints in (113) penalize “accusative marking of the lowest argument that is non-specific” Morimoto (2002: 308). Recall that Aissen (2003) introduced two constraints that penalize opposite specifications for case:  $*\emptyset_C$  penalizes the absence of case, while  $*STRUC_C$  penalizes the presence of case. Obviously case marking will not help us here, since there is none in the languages under discussion.

Morimoto (2002: 308) avoids this problem by proposing a so called faithfulness constraint that makes sure that if an element in the input has a certain feature, this feature will be realized. This faithfulness constraint is more general than  $*STRUC_C$  since Morimoto assumes that it has several different versions: one for agreement (as in some Bantu languages), one for case (as in the languages in Section 3.4 above) and one for position; combinations of these constraints are possible.

- (114) Input-Output Faithfulness  
 $MAX(+hr)_{agr}$ : The  $[+hr]$  role in the input must be realized by agreement.

To explain variation across languages Morimoto (2002) again follows Aissen (2003). The position of  $MAX(+hr)_{agr}$  relative to a constraint hierarchy derives differential marking in different languages.

$* [+hr]/NSpec$	
$* [+hr]/IndefSpec$	
	$\leftarrow MAX(+hr)_{agr}$ Kihung’an, Zulu
$* [+hr]/Def$	
	$\leftarrow MAX(+hr)_{agr}$ Kiyaka
$* [+hr]/Name$	
	$\leftarrow MAX(+hr)_{agr}$ Kichaga
$* [+hr]/Pro$	
	$\leftarrow MAX(+hr)_{agr}$ Chichewa

Table 3.4.: Definiteness-based DOM in several Bantu languages (cf. Morimoto 2002: 309)

### 3 Differential object marking

Chicheŵa is not included in this ranking, since the presence of the object marker is not based on definiteness, but on topicality. Note the difference to the similar table based on Aissen (2003) presented above (Table 3.1, p. 80). In Aissen (2003), constraints penalizing more prominent objects are higher in the hierarchy. Morimoto's (2002) implementation of constraints, for conceptual reasons, takes a different approach with basically the same results. Table 3.4 should be read as follows, then: In Kihung'an and Zulu,  $*\text{MAX}(+\text{hr})_{\text{agr}}$  (indirectly) forces objects that are definite, proper names or pronouns, to be marked. Since we are dealing with  $*\text{MAX}(+\text{hr})$  relative to agreement, this marking will appear on the verb. In Kiyaka  $*\text{MAX}(+\text{hr})_{\text{agr}}$  is ranked higher, so definites do not have to be marked. This was illustrated in (112) above (p. 90). The similarities to Aissen's (2003) approach should be clear. Note also that in the languages surveyed in Morimoto (2002) it is true that if a certain type of object has some kind of morphological coding, more prominent objects will have it as well.

To sum up, Morimoto (2002) shows that DOM in some Bantu languages is quite similar to DOM in the languages seen so far. Again, it is the case that prominent objects are marked as opposed to less prominent ones. Prominence is once again expressed with definiteness and animacy, respectively. Also, the possible universal that morphological marking of a certain position implies the morphological marking of more prominent positions holds in the languages discussed in this section — but note that this constitutes, at best, very weak evidence, since all languages in question are very closely related. The same caveat applies to the similarities in morphological coding: there is a clear zero/non-zero alternation. Given the rather transparent historical development of these markers (from incorporated pronouns), this is not surprising.

As a final note, recall that in Chicheŵa, the presence of the object marker is related to the topicality of the object. In the following section, I will introduce another language in which, I claim, there is differential marking sensitive to topicality.

#### 3.5.2 Ostyak

Ostyak (endonym: Khanty) is a Uralic language belonging to the Ob-Ugric branch of the Finno-Ugric languages. Its closest relative is Vogul (or Mansi) with which it forms the Ob-Ugric branch, to which Hungarian is the closest related language (for details see Sinor 1988, Abondolo 1998). Nikolaeva (1999, 2001) describes Northern Ostyak dialects, here data coming mostly from “the dialect of Obdorsk” (Nikolaeva 1999: 46, fn. 5). In this variety, the verb agrees with the direct object in certain cases. Nikolaeva (1999, 2001) argues that this happens only when the object has special information structure status, namely that of a *secondary topic*.

In this section, I will first introduce the relevant data and then argue that they constitute an instance of DOM that is based on (secondary) topicality with morphological coding in verb morphology.

## Morphology

Transitive verbs that agree with the object in addition to the subject have the structure in (115b); (115a) shows intransitives or transitives that do not agree with the object.

- (115) a. stem-T-SM  
 b. stem-T-OM-SM (Nikolaeva 1999: 4)

The subject marker expresses agreement person and number agreement and the object marker expresses the number of the object. See (116) for illustration.

- (116) a. ma jelən oməs-l-əm  
 I at.home sit-T-1SG  
 'I am sitting at home.'  
 b. ma tām käləŋ wel-s-əm  
 I this reindeer kill-T-1SG  
 'I killed this reindeer.'  
 c. ma tām käləŋ wel-s-Ø-em  
 I this reindeer kill-T-SG-1SG  
 'I killed this reindeer.'  
 d. ma tām käləŋ wel-sə-ŋil-am  
 I this reindeer kill-T-PL-1SG  
 'I killed these reindeer.' (Nikolaeva 1999: 4)

These examples show, among other things, that object agreement is not triggered by definite objects, otherwise (116b) would be ungrammatical. (116c) illustrates that the singular object marker is zero. That it is nevertheless present is evident from the different subject marker (compare (116a)). Nikolaeva (1999: 5) writes that with singular objects, the marker is a portmanteau morpheme glossed as OBJ. It is also evident that the objects in (116) are not case marked. Some objects, however are: "Independent of conjugation type, subjects are always encoded by the unmarked nominative, pronominal objects by the morphologically marked accusative [...]" (Nikolaeva 1999: 5).

## Two types of objects

As seen in (116), definite objects can occur with the subjective conjugation. This is also the case for pronominal objects and possessive structures.

- (117) a. ma nəŋ-en/nəŋ xot-en wan-s-əm  
 I you-ACC/you house-2SG see-T-1SG.SUBJ  
 'I saw you/your house.'  
 b. ma nəŋ-en/nəŋ xot-en wan-s-em  
 I you-ACC/you house-2SG see-T-1SG.OBJ  
 'I saw you/your house.' (Nikolaeva 1999: 6)

Objects that are high in definiteness therefore do not necessarily influence object agreement (also animacy might not play an important role, since the pronoun alone does not trigger the objective conjugation). On the other end of the definiteness scale, weak quantifiers can co-occur with the objective conjugation.

- Nikolaeva (1999: 7) thus rules out definiteness as the trigger of the objective conjugation (though apparently non-specific indefinites never appear with the objective conjugation). Objects that do and objects that do not agree do have some different properties, however.

In certain participial clauses, coreference of the subject of the matrix clause and the subject of the participial clause is not obligatory. The embedded subject optionally has a possessive suffix that agrees with the subject of the participial clause and marks the topicalization of the embedded subject (cf. Nikolaeva 1999: 12). Nikolaeva (1999) shows that when the two subjects are coreferent, the possessive suffix *has* to appear on the participle. And, crucially, O2, i.e., an object that co-occurs with the object marker on the verb, can also control coreference with the embedded subject, while O1 cannot. This is shown in (119) (with embedded clauses enclosed in square brackets).

- (119a) illustrates coreference of the matrix subject with the embedded subject. In the embedded clause, the participle without the possessive suffix *-al* that agrees with its subject is ungrammatical. In (119b), in the matrix clause, Imi-Xili is the object; there is object agreement on the verb and the subject of the embedded clause is coreferent with Imi-Xili

(this is indicated by the index on these elements; the subject in the embedded clause is a null element, or *pro*).

This coreference between object and embedded subject can only be established by O2, i.e., by an object that triggers object agreement, but not by O1 as shown in (120).

- (120) \* $[\emptyset/$  xŭl un ul-m-al/ul-əm pāta] xŭl/ $\emptyset$  nŏx ăn tal-s-əm  
 fish large be-PART-3SG/be-PART because fish out not carry-T-1SG.SUBJ  
 ‘I didn’t take out the fish because it was large.’ (Nikolaeva 1999: 13)

So both S and O2 are able to “control coreference in participial clauses” (cf. Nikolaeva 1999: 11), while O1 cannot. Another construction in which S and O2 pattern alike is possessive reflexivization, i.e., controlling a possessive suffix. O2 can do this, as shown in (121a), while O1 cannot, cf. (121b).

- (121) a.  $\emptyset$  ittam sǎrt kŭtpe-l ewəlt mŭw-na lăskə-s-li  
 this pike middle-3SG from ground-LOC throw-T-3SG.OBJ  
 ‘He threw this pike<sub>i</sub> to the ground (holding it) in the middle (in its<sub>i</sub> middle)’  
 b. aśi xot-əl-na pŏx-əl want-əs  
 father house-3SG-LOC son-3SG see-T-3SG.SUBJ [sic]  
 ‘The father<sub>i</sub> saw his<sub>i</sub> son<sub>j</sub> in his<sub>i/\*j</sub> house.’ (Nikolaeva 1999: 14)

In (121a), the object is *sǎrt*, controlling *kŭtpe-l* ‘its middle’. In (121b), the object *pŏx-əl* is not able to control the possessive suffix on house. Nikolaeva (1999: 12) states that this is not due to a positional restriction (the potential controller following the possessive suffix), since this is in general possible, giving the following example.

- (122) aśe-l pŏx-əl reskə-s-li  
 father-3SG son-3SG hit-T-3SG.OBJ  
 ‘His<sub>i</sub> father<sub>j</sub> hit his<sub>j</sub> son<sub>i</sub>.’ (Nikolaeva 1999: 14)

Another syntactic similarity between S and O2 as opposed to O1 is possessor topicalization. As Nikolaeva (1999: 15) illustrates, in a possessive construction with a nominal possessor, the possessum does not have a possessive suffix. This is only possible if the nominal possessor is ‘extracted’ from the structure, i.e., can be separated from the possessum in the clause, see (123) (recall the discussion of extracted possessors in Hungarian in section 2.3.4, p. 48ff.).

- (123) Maša jernas/\*jernas-əl  
 M. dress/\*dress-3SG  
 ‘Masha’s dress’ (cf. Nikolaeva 1999: 15)

S and O2 are similar in that they both allow possessor topicalization, whereas O1 does not, cf. (124a,b,c) for S, O2 and O1 respectively.

### 3 Differential object marking

- (124) a. imi ijolti lik-əl/\*lik et-əl nawərniŋ pela  
 woman always anger-3SG/\*anger come-T.3SG.SUBJ frog to  
 ‘The woman, she is always angry with the frog (her anger always comes to the frog).’  
 b. Juwan motta xot-əl kǎśalə-s-em  
 John before house-3SG see-T-3SG.OBJ  
 ‘I saw John’s house before.’  
 c. \*Juwan motta xot-əl kǎśalə-s-əm  
 John before house-3SG see-T-3SG.SUBJ  
 intended: ‘I saw John’s house before.’ (Nikolaeva 1999: 16)

(124b,c) are minimal pairs that differ only in verb morphology. If there is object agreement, possessor topicalization is licensed. In brief, there are syntactic phenomena in which O2 clearly patterns with S and not with O1, i.e., objects that trigger object agreement show different syntactic behavior than objects that do not.

In addition, there are also distributional differences. Nikolaeva (1999: 19) finds that in Ostyak data, from József Pápay, 91% of sentences show SO1V(X) or SXO1V word order, i.e., O1 is immediately preverbal in 91% of the cases. The remaining 9% are SO1XV, but as Nikolaeva (1999: 23f.) argues, X is in each case a kind of preverbal particle, which she calls a reduced complement. This means that O1 basically has a fixed preverbal position. Possible interveners are a small class of closed-class items.

O2, on the other hand, is distributed more freely. Every ordering except O(X)V(X)S is possible and attested, with SOV(X) and SOXV being the most frequent word order after sentences in which the object has been dropped (cf. Nikolaeva 1999: 19).

From these data, Nikolaeva (1999: 20) concludes that “O1 can be described as VP-internal and O2 as VP-external.” Further differences between the two types of objects lie in their information structure status. Nikolaeva (1999) shows that the preverbal position is associated with focus. One way to show this is with questions. Nikolaeva (1999: 34) writes that “[i]n the answers to wh-questions the target wh-phrase must be in the immediately preverbal position” and that “[t]hese facts can be accounted for if object agreement is taken to mark the non-focus status of the object.”

The following conclusions can be drawn from Nikolaeva’s (1999) analysis of Ostyak. Differential object marking (or differential object agreement in this case) need not be dependent on definiteness or animacy as in most languages above. Nikolaeva (1999) shows that these factors do not influence the presence of object agreement. In her view, what is relevant in Ostyak is the information structure status of the agreeing object (O2). In the quote above, it is referred to as ‘non-focus’; in Nikolaeva (2001) it is argued that O2 is a secondary topic. She defines this notion as “an element under the scope of the pragmatic presupposition such that the utterance is construed to be about the relation that holds between it and the primary topic” (Nikolaeva 2001: 2). The pragmatic presupposition is roughly what the speaker expects the hearer to know. This in contrast with focused ele-

ments, which are supposed to be new (though this is only a rough generalization); this is why the questioned element in interrogatives counts as focus.

This difference in information structure status also correlates with structural properties. As shown above, O2 and O1 show different syntactic behavior. Nikolaeva (1999) analyzes O2 as VP-external, while O1 is in a VP-internal position. This is line with “modern syntactic research” (Nikolaeva 1999: 19) which claims that phenomena like object agreement and object shift are related (cf. also the discussion of Carnie 2005, Jelinek and Carnie 2003 above). If O2 is external to the VP, then it is necessarily structurally ‘higher’ than the internal object O1. It is structurally more prominent, just as shifted objects are.

### 3.5.3 Differential object agreement?

The discussion of Bantu and Ostyak above suggests that DOM phenomena should not be restricted to differential marking of nouns or noun phrases, but that differential verb morphology (or differential object agreement, DOA) is a very similar, maybe the same, phenomenon. The properties to which DOA is sensitive have been shown to be of the same kind as in DOM. In the Bantu languages surveyed above, definiteness and animacy trigger the presence of an object marker. In Chichewa, which is maybe the best-studied language in this respect, the object marker does not really express agreement, but is a referential element in its own right. It is argued in Givón (1976) that object agreement in definiteness arises from such configurations.

In Ostyak, as Nikolaeva (1999: 27ff.) shows, the object marker does express agreement (it is not referential on its own; Nikolaeva compares the Ostyak facts with the insights reached by Bresnan and Mchombo 1987). Interestingly, verb agreement occurs with objects that are not part of the focus, but topical elements. This property also correlates with syntactic prominence in Ostyak, crucially, objects that trigger agreement are structurally higher than objects that do not.

## 3.6 Summary and conclusions

In this chapter, I introduced the phenomenon known as DOM and discussed several different aspects related to it. In this summary, I will first mention the basic facts that have been established before discussing variation in DOM and review analyses that have been proposed to account for this phenomenon in linguistic theory.

### 3.6.1 Properties and variation

There are some core properties that are true of every instance of DOM in different languages.

- Obviously, not all objects are marked in the same way. A language that does mark all or none of its objects does not exhibit DOM.

### 3 Differential object marking

- Which objects are subject to overt morphological coding is not random. Prominent objects, as opposed to less prominent objects, are marked, where prominence is a cover-term for the following properties:
  - definiteness (e.g., in Turkish, cf. Enç 1991, von Stechow and Kornfilt 2005; Hebrew, cf. Danon 2006)
  - animacy (e.g., Sinhalese, Yiddish, cf. Aissen 2003: 456f.)
  - definiteness and animacy (e.g., Hindi, cf. Aissen 2003, de Swart 2007, Keine and Müller 2008)
  - topicality (e.g., Northern Ostyak, cf. Nikolaeva 1999, 2001; to some degree Komi, cf. Klumpp 2009)
- With each of these properties, it is the case that in DOM only those objects have overt morphology<sup>6</sup> that are more definite, animate, etc. than other objects.

In all languages with DOM that were discussed above and those mentioned in the literature, these are the basic facts that characterize prominent objects. However, there is a substantial amount of variation in how DOM is expressed in a language. This variation happens along the following parameters (they are numbered for later reference).

**Property** Which is the relevant property (see above)?

**Coding** How is DOM expressed? There are several possibilities. P2a-c represent morphological coding, P2d is syntactic.

**Case marking** Marking on the head of a phrase (Turkish, Hindi)

**Noun phrase** Marking on the noun phrase (Hebrew, Spanish)

**Verb morphology** Marking on the verb (Bantu, Ostyak); note that DOM is usually marked once. In Ostyak, however, pronominal objects have accusative forms. This might constitute a second instance of DOM in this language.

**Object shift** As suggested in Aissen (2003), Jelinek and Carnie (2003), Carnie (2005), object shift might be related to DOM, i.e., syntactic prominence is another possible encoding of DOM. In this case, prominence is expressed syntactically by a structurally higher position. Recall also that Ostyak distinguishes its two types of objects by syntactic behavior in addition to object agreement.

**Iconicity** Aissen (2003) claimed that morphological coding of DOM is privative, i.e., consists of zero/non-zero alternations. This has been shown not to be true by Keine and Müller 2008. They also take iconicity to be part of an account for DOM.

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<sup>6</sup>This is a simplification. As suggested by Keine and Müller (2008), see above, it is not necessarily the case that morphological alternations are zero/non-zero.



**Universality** Some aspects of DOM might be universal. Recall that it seems to hold across languages that if a certain point on a hierarchy is case marked, all those that are more prominent (for objects) are case marked as well.

### 3.6.2 Explanations and analyses

Another point that deserves mention is what types of analyses have been proposed to explain this phenomenon. No doubt the most prominent of these has been Aissen's (2003) analysis which has both been adopted and criticized by others. As discussed above, it tries to formalize insights that have been reached over the years in the functionally oriented literature (e.g., Bossong 1985, Comrie 1986, Haspelmath 2008c, Lazard 2001).

These insights are based on the idea that since there are typical properties for subjects and objects, those objects that are rather subject-like tend to be marked across languages. This might in order to ensure that there are no misunderstandings when ambiguities could arise, or simply to aid the addressee's interpretation of a sentence. This explanation is taken to hold equally well for subjects and objects. Following Aissen (2003), various implementations of this concept in Optimality Theory have been proposed (cf. Jäger (2004), Keine and Müller (2008), Morimoto (2002), de Swart (2007), Zeevat and Jäger (2002)) that are based on functional assumptions to different degrees. These approaches are similar to a certain extent, since they are based on violable constraints that derive the correct morphological form of an object. These constraints are taken to hold for all languages, being part of UG.

This has been criticized by Haspelmath (2008a), from a functional point of view:

“Particularly telling is Aissen's (2003) discussion of Differential Object Marking (DOM), which is known to have a very good functional explanation [...] Aissen does not consider the possibility that this functional explanation makes an explanation in terms of UG superfluous [...]”

(Haspelmath 2008c: 4)

A third type of approach is proposed by Carnie (2005), Jelinek and Carnie (2003). This type differs from the two above in that it does not need to make any assumptions along the lines of markedness, frequency, scales, etc. It is based on generative syntactic theories that claim that certain noun phrases are interpreted at structurally higher positions in the clause and that this can also be seen in overt syntax, e.g., in object shift phenomena. Jelinek and Carnie (2003: 265) propose that “the effects of argument hierarchies emerge from a formally encoded correspondence between syntactic prominence and semantic/pragmatic prominence.”

To my knowledge, it is so far not clear which of these approaches makes the best predictions with respect to phenomena like DOM; also, their goals are different to a certain degree. In the generative framework mentioned last DOM would follow from properties

### 3 Differential object marking

of structure and interpretation, without reference to ease of interpretation or avoidance of ambiguity. Its analysis would also lack considerations of iconicity (i.e., more exceptional forms are more likely to have overt morphology).

I take it to be an interesting and open question which of these approaches is the most fitting, and to what extent they are compatible and merely different expressions of similar concepts. In the following chapter, in which the criteria of DOM are applied to Hungarian, I pick up this question.

## 4 Hungarian and DOM

In the last chapter, I presented the properties of DOM and the parameters along which the phenomenon varies across languages. In the present chapter, I will combine these insights with the discussion of Hungarian verbal paradigms from chapter 2. To do this, I will go through the properties established above one by one and discuss how the Hungarian data fit the generalizations made.

### 4.1 DOM based on definiteness?

The first characteristic established in Section 3.6.1 above referred to the property to which DOM is sensitive in a given language. Given the discussion of what triggers the Hungarian objective conjugation, basically there seem to be two possibilities, corresponding to the two hypotheses illustrated in Chapter 2, the DP hypothesis and the morphological hypothesis. In the former case, the object's DP status was claimed to trigger object agreement, in the latter case, it was a morphological feature [DEF]. What would be the consequences of either choice?

#### 4.1.1 DOM based on DP-hood

So far, reference to the exact property that triggers DOM in particular languages has been somewhat superficial, without providing exact definitions of terms like *definiteness* and *animacy*. In this subsection, I want to pick up the discussion of the DP hypothesis for the Hungarian objective conjugation (cf. section 2.3, p. 41) by also mentioning a similar analysis for Modern Hebrew.

#### Modern Hebrew

As mentioned above, Modern Hebrew has DOM based on definiteness (cf. Tables 3.1, p. 80, and 3.3, p. 81). In the terms of the discussion there, it was argued that Hebrew marks definite direct objects with the marker *et*, preceding the noun phrase. Danon (2001, 2006) argues, however, that the definiteness triggering the presence of *et* is not *semantic* definiteness, but rather *formal* (i.e., structural or syntactic) definiteness. (125) illustrates that not all definite direct objects have *et*:

#### 4 Hungarian and DOM

- (125) a. ha- memšala daxata (\*et) haca'a zo.  
 the- government rejected OM proposal this  
 'The government rejected this proposal.'
- b. ha- memšala daxata \*(et) ha- haca'a ha- zo.  
 the- government rejected OM the- proposal the- this  
 'The government rejected this proposal.' (Danon 2006: 1002)

In (125a), the presence of *et* is ungrammatical, while in (125b), with the definite article *ha-* preceding the items in the object noun phrase, its absence is. The interpretation is the same for (125a) and (125b), the object is definite in both cases. This is just one argument among many more made by Danon (2006) to argue that what triggers the presence of the marker *et* is not the direct object's semantic definiteness but its syntactic category. Danon (2006) claims that only DPs trigger *et*, excluding certain semantically definite arguments that do not project as much functional structure (cf. section 2.2.3 for discussion of functional structure in the noun phrase).

Danon (2006: 1004) correctly suggests that generalizing this analysis would suggest that definiteness-based DOM in other languages also depends on the projection of DP for certain objects only. He further states that with respect to the definiteness hierarchy, "one striking observation is that the factors that rank high in this scale are indeed factors that have often been associated with the D position [...]" (Danon 2006: 1004). For convenience, I repeat the hierarchy in (126).

- (126) Definiteness scale:  
 Personal Pronoun > Proper name > Definite NP > Indefinite specific NP > Non-specific NP  
 (Aissen 2003: 437)

A further claim by Danon (2006: 1004) needs clarification though, namely that "a significant number of languages that instantiate DOM based on the definiteness scale can be subsumed under the analysis proposed for Hebrew in a straightforward manner." The relation between semantic and syntactic definiteness (i.e., projecting a DP) is crucial here: If we take the definiteness scale in (126) to express a hierarchy of semantic properties, Hebrew does not fit this picture as straightforwardly as suggested, since we have seen in (125) that not all semantically definite NPs trigger *et*.

If we adapt the hierarchy to include structural properties, such as the category of a direct object, Hebrew fits better: all and only DPs are marked with *et*. Crucially, all these DPs happen to be definite (personal pronouns, proper names and noun phrases marked with the definite article), but being definite is not a sufficient condition to trigger *et* (cf. Danon 2001: 1091, (22) for an *et*-marked proper noun, Berman 1997: 317 for accusative pronouns and Ritter 1995 for discussion of the DP status of Hebrew pronouns).

Danon (2006: 1004) gives a few examples: if a language with DOM were only to project DPs for pronouns and proper names, these would be the only ones to get case marking.

This could describe the situation in Pitjantjatjara (cf. Aissen 2003: 452), where only these elements have overt accusative case. However, Danon (2006: 1004) concludes that given the differences across languages it might be “somewhat unrealistic” that all definiteness-based DOM systems depend on the presence of DP structure.

A reason for this might be that definiteness in Hebrew has been grammaticalized to a degree that the formal marking of definiteness does not always coincide with semantic definiteness, i.e., DOM in Hebrew reflects a strictly structural property, while DOM in other languages might be more “sensitive to semantic, pragmatic, or extra-linguistic cognitive factors.” (Danon 2006: 1005). Danon goes on to argue that functional reasons, roughly the second group of languages, might provide the starting point for establishing DOM, while processes of grammaticalization can make DOM “syntactically governed” and that the DP analysis describes a situation “in which DOM is at a relatively advanced stage, where its functional origins have ‘faded away.’” (Danon 2006: 1005).

To sum up, Danon (2006) argues that DOM in Modern Hebrew depends on the direct object projecting a DP, i.e., syntactic or formal definiteness, but not on semantic definiteness. This explanation is compatible with the criteria of DOM seen across languages, since those elements that have *et*, i.e., that are DPs, are situated high on the definiteness scale. To keep the scale as an aspect of this explanation, however, it has to be sensitive to structural and not semantic properties to account for the distribution of differential object morphology in Modern Hebrew.

## Back to Hungarian

Danon’s (2006) analysis of DOM in Hebrew is reminiscent of the DP hypothesis for Hungarian object agreement. What connects the two proposals is that special morphology is triggered by the syntactic category of the direct object. Note, however, that Hungarian expresses this morphology on the verb, while Hebrew expresses it on the noun phrase. Also, the types of noun phrases that are claimed to project DPs in these languages are not identical, but this is in part due to language-specific reasons that shall not concern us here.

While DOM in Hebrew meets some typical DOM properties (e.g., iconicity), the situation is not so clear for Hungarian. Recall which types of noun phrases trigger the objective conjugation in Hungarian. Some cases are trivial since there is no doubt about the phrases’ indefiniteness or definiteness, respectively, and their co-occurrence with either the subjective or the objective conjugation. Prototypical examples might be objects with the definite article *a(z)*, always triggering objective morphology, and bare nouns, always co-occurring with the subjective paradigm.

A few cases deserve special mention, however. Recall the discussion of possessive structures. In standard Hungarian, these always trigger the objective conjugation which, in the DP hypothesis, is a consequence of their syntactic category of DP. Such possessive constructions can be indefinite, however. This suggests that the property triggering the

objective conjugation is not semantic definiteness, but rather syntactic definiteness, as argued for Hebrew above.

This conclusion is corroborated by further evidence: direct objects with the universal quantifier *minden* ‘every’ trigger the subjective conjugation. While their definiteness status is not clear (but see below), they are barely ‘less definite’ than specific indefinite possessive constructions. Finally, first and second person pronouns always require subjective morphology on the verb. These pronouns are hardly indefinites; as mentioned above, Bartos (1999) argues that they do not project a DP.

In brief, there is evidence that only DPs trigger the objective conjugation (see extensive discussion in Section 2.3, p. 41). So far, the situation resembles that in Hebrew. There are important differences, however. In Hebrew, while not all definite objects are DPs, at least all DPs are definite. In Hungarian, on the other hand, this is not so clear with respect to possessive constructions, i.e., it might be the case that DPs can be indefinite in Hungarian.

Consider again that first and second person pronouns do not trigger the objective conjugation. We are thus faced with the following facts: DPs require objective morphology; objective morphology does not correlate with semantic definiteness. There are definite objects that require the subjective conjugation (i.e., they are not DPs), and there are indefinite objects that require objective morphology, viz. some possessive constructions.

Stating this without reference to a particular theory amounts to the assertion that Hungarian object agreement cannot be described by reference to semantic categories alone (an insight already stated by Szabolcsi 1994: 223 and mentioned above; cf. the discussion of example (69), p. 51). This distribution of data obviously does not fit the definiteness scale, cf. (126) above. Hungarian object agreement extends from the second position (proper names) to parts of the fourth (indefinite specific NPs), i.e., there is a gap in morphological coding with respect to some personal pronouns. This is undesirable, as suggested above (cf. (108), p. 86, and discussion there). Furthermore the definiteness scale in the quoted form cannot accommodate the relevance of syntactic definiteness as opposed to semantic definiteness for Hungarian object agreement.

#### 4.1.2 DOM based on [DEF]

In this section, I will briefly discuss whether the morphological hypothesis proposed by Coppock and Wechsler (2010a, 2011) has different consequences with respect to Hungarian DOM. Naturally, since this approach tries to provide an explanation for the same phenomenon, the data in question are not any different. So first and second person pronoun direct objects remain unexpressed in verb morphology, still violating the assumption that the expression of DOM does not show gaps on scales. A possible explanation for the restriction of the objective conjugation to third person (and reflexive pronouns) was discussed in Section 2.4.4.

It is harder to assimilate this hypothesis to other assumptions regarding DOM in a particular language (as with the DP hypothesis and Hebrew above), since the status of

[DEF] is not quite clear to me. Coppock and Wechsler (2010a, 2011) argue that it is a formal, morphological feature and not a semantic feature, which means that it is not possible to explain the distribution of this feature using constraints based on definiteness, as for Turkish and Hebrew (in Chapter 3 above). The status of this feature and possible objections to the predictability of its presence were discussed in Section 2.4 above.

### 4.1.3 Conclusions

With respect to DOM, the DP hypothesis and the morphological [DEF] hypothesis have similar shortcomings, since the data are the same. Hungarian does not fit the hierarchies typically assumed to govern DOM. In fact, to analyze the distribution of the objective conjugation, there is no need to posit any hierarchies, since both theories basically act on the assumption of a binary opposition. In one case, it is the DP vs. non-DP status of a phrase, in the other it is the presence of absence of [DEF]. It is crucial to stress again, however, that neither of these properties correlates with semantic definiteness. A constraint ‘hierarchy’ in the terms of Chapter 3 would merely include two positions and it need not correlate with prominence, as extensively argued above.

This seems to suggest that DOM in other languages cannot help us decide whether one of the hypotheses provides a better explanation. This is not necessarily surprising, since it is not the goal of either theory to explain the Hungarian conjugation in terms of DOM. What this means for the question whether Hungarian exhibits an untypical instance of DOM or another grammatical phenomenon that is somewhat similar will be discussed below. The following section illustrates another aspect of Hungarian that is untypical with respect to DOM.

## 4.2 Morphological coding

The second property of DOM, suggested in Section 3.6.1 above, referred to how the differential marking is encoded morphologically (or syntactically). Hungarian is interesting in this regard as well and there are two different answers to this question, discussed in the following two subsections.

### 4.2.1 Differential case marking

The first one is related to a phenomenon not mentioned so far, namely that some direct objects in Hungarian lack case marking. The direct object is usually marked with accusative case (-*t*), but it is possible to omit the accusative suffix if the object is marked for possession, with the possessor being first or second person. Kamper (2006) analyses DOM in Hungarian in this regard, see the following examples for illustration.

- (127) a. Felvet-t-em a kalap-om(-at).  
put on-PAST-1SG.OBJ the hat-1SG.PX(-ACC)  
'I put on my hat.'
- b. Megetet-t-ed a kutya-d(-at).  
feed-PAST-2SG.OBJ the dog-2SG.PX(-ACC)  
'You fed your dog.'
- c. Megetet-t-ük a fiu-nk(-at)  
feed-PAST-1SG.PL the boy-1PL.PX(-ACC)  
'We fed our son.'
- d. Megcsókol-t-a a \*barátnő-je/barátnő-jé-t.  
kiss-PAST-3SG.OBJ the girlfriend-3SG.PX/girlfriend-3SG.PX-ACC  
intended: 'He kissed his girlfriend.'  
# 'His/her girlfriend kissed him/her.'<sup>1</sup> (Kamper 2006: 13)

A few comments about (127) have to be made. First, this alternation is always optional and does not go along with a change in interpretation. Second, Kamper (2006: 13, fn. 3) states that “most speakers tend to find one of the options degraded, especially with personal pronouns and in the plurals.” First and second person pronouns usually appear without accusative case (cf. *engem* ‘I.ACC’, *téged* ‘you.ACC’), although these forms inherently differ from the nominative ones (*én*, *te* ‘me’, ‘you’). In the third person, the contrast is transparent and regular: *ő* ‘s/he’ vs. *ő-t* ‘s/he-ACC’.

(127d) shows that with objects with third person possessors, the accusative suffix is obligatory. Under certain circumstances, viz. if the subject is dropped, there would be no way in a structure like (127d) to make out whether the argument that is pronounced is the subject or the object. I do not want to claim that the accusative suffix is obligatory in such cases in order to prevent such ambiguity, but note that this would be a possible explanation.<sup>2</sup>

Kamper (2006) approaches this problem using Aissen's (2003) methodology. From this perspective, it is instantly evident that the data are unusual: all arguments involved are third person, with some marked for first and second person possessors. It is exactly these latter objects that can omit morphological coding. Kamper (2006: 14) correctly notes that definiteness or animacy cannot be the relevant DOM properties in Hungarian, since that

<sup>17</sup>This reading is possible if *barátnője* is taken to be the subject. In that case, the objective form suggests that there is a dropped object. This reading is irrelevant for our purposes.

<sup>2</sup>But considerably weakened by the fact that even in cases where no ambiguities could arise, third person possessed direct objects cannot stand without accusative. In *\*Megcsókoltam a barátnője*, the first person subject is dropped but clearly marked by verb agreement.

There is a morphological difference between forms that allow and forms that do not allow dropping the accusative suffix. It seems to me that the vowel in third person singular possessive suffixes always undergoes lengthening before *-t*, e.g., *barátnoje* vs. *barátnojét* ‘girlfriend-3SG.PX-ACC’. First and second person suffixes do not vary in this regard. But note that this does not extend to third person plural possessive suffixes.



would suggest that a noun with a first or second person possessive suffix is less definite or animate than any non-specific indefinite that is obligatorily accusative marked. The solution according to Kamper (2006: 14) is to propose a constraint to the effect that “for possessed objects [...] it is an unmarked situation to appear in a sentence as direct objects, therefore case-marking has a tendency to ‘forget’ about them.” This is implemented in a way that forces accusative marking on nouns with third person possessive suffixes, while locally possessed (first or second person) nouns are allowed without accusative.

Note that this explanation is quite *ad hoc* and no independent motivation except to derive the correct distribution of accusative case is given. Since the optionality of accusative case is, however, not directly relevant to this thesis and I do not have an explanation to offer, I will not discuss this proposal in any more detail.

### 4.2.2 Differential object agreement

The second answer is that Hungarian has differential object agreement, i.e., differential marking is expressed in verb morphology, as in Bantu and Northern Ostyak. This marking is redundant to a certain degree, since direct objects are in general case marked anyway and agreement with some objects is additionally encoded morphologically on the verb. Crucially, since Hungarian also has articles, demonstratives, etc., there might not be a case where the presence of the objective conjugation alone distinguishes one interpretation from another (but see the discussion below). The following examples illustrate this.

- (128) a. Lát-ok        egy kutyá-t.  
          see-1SG.SUBJ one dog-ACC  
          ‘I see a dog.’  
      b. Lát-om        a kutyá-t.  
          see-1SG.OBJ the dog-ACC  
          ‘I see the dog.’  
      c. Lát-ok/\*-om kutyát.  
          ‘I see dogs.’

The indefiniteness/definiteness of the object in (128a,b) is determined by the article, the verbal endings being redundant in these cases. In (128c), with a bare noun phrase object, only the subjective conjugations is allowed. The object is interpreted as indefinite. Again, this is determined by the structure of the noun phrase. The cases where the conjugations might contribute a change in meaning were the non-standard possessive structures (cf. (78), p. 54). I have repeated the relevant examples in (129). These examples (and analogous ones) illustrate an instance of ‘regular’ DOM, in which an alternation in morphology directly correlates with an alternation in interpretation (cf. the discussion above).

- (129) a. Chomsky-nak nem olvas-t-ad *t t* vers-é-t.  
 C.-DAT not read-PAST-2SG.OBJ poem-3SG.PX-ACC  
 ‘You haven’t read any poem of Chomsky’s.’  
 ? ‘You haven’t read Chomsky’s poem.’ (Szabolcsi 1994: 226)
- b. Chomsky-nak nem olvas-t-ál vers-é-t.  
 C.-DAT not read-PAST-2SG.SUBJ poem-3SG.PX-ACC  
 ‘You haven’t read any poem of Chomsky’s.’ (Szabolcsi 1994: 227)

The status of such examples is doubtful, however. Not all speakers accept (129b); in addition, with respect to (129a), not all speakers get the reading that Szabolcsi suggests to be the salient one.<sup>3</sup> With other types of direct objects, as far as I can tell, there are no pairs of sentences in which the burden of accounting for a different interpretation lies on the choice of verb paradigm alone. Recall further that even in (129), the extraction of the possessor from the noun phrase is a necessary condition of getting a non-specific reading of the direct object. This promotion is a syntactic process that is independent of verb morphology.

In brief, the morphological coding of DOM in Hungarian is at least unusual, since the coding can barely be held accountable for a change in interpretation on its own. In other words, the differences in interpretation that accompany each paradigm are due to other elements in the structure like, e.g., definite determiners and case marking. This makes the objective paradigm highly redundant, which is not typical of differential morphology, as is obvious from most examples from various languages above (and in the literature).

### 4.2.3 Iconicity

Recall the discussion of markedness and the Hungarian conjugations in Section 1.4.4 (p. 21). Since iconicity is assumed to be a key part of DOM by some researchers (cf. Aissen 2003, Keine and Müller 2008), I want to pick up the discussion of how the Hungarian data fit this concept. Aissen (2003) assumes that the more marked (i.e., untypical) a category, the more likely it is to show overt morphology. According to her, this suggests that *iconicity* is part of an explanation of DOM. Also, for Aissen (2003), DOM morphology is privative, i.e., based on zero/non-zero alternations.

I have concluded above that a separate object marker is present in roughly half of the objective paradigm, either as *-j(a)/-i-* or *-a/-e-*. One could argue that, in these cases, the alternation is in fact privative, cf. (130).

- (130) a. *kér-∅*  
 want-3SG  
 ‘s/he wants (something)’

<sup>3</sup>Personally, I tend to judge both (129a,b) as acceptable, with (129a) having a specific and (129b) a non-specific reading. (129b) seems less grammatical than (129a), however.

- b. *kér-i-Ø*  
want-OBJ-3SG  
's/he wants (it)'
- c. *kér-ne-Ø*  
want-COND-3SG  
's/he would want (something)'
- d. *kér-ne-e-Ø* (*kérné*)  
want-COND-OBJ-3SG  
's/he would want (it)'

(130a,b) are clear cases of a privative alternation. (130a) lacks the definiteness marker, (130b) has it. (130c) and (130d), on the other hand, differ in the length and the quality of the vowel. The former, *kérne*, is pronounced ['ke:rne], the latter, *kérné*, ['ke:rne:]. Morphophonologically speaking, this alternation is expected, but it is not as clearly privative as (130a,b). For these forms, Keine and Müller's (2008) approach to iconicity fares better. However, as discussed in Section 1.4.4, only slightly less than half the paradigm shows such iconic alternations. The other half of the paradigm does not conform to the expectation that a marked form necessarily has more complex morphological structure. Sticking to the assumption that object agreement is the result of the incorporation of an object pronoun into verb morphology, the current situation is no doubt the result of historical changes.

## 4.3 Theoretical aspects

### 4.3.1 Functional explanations

Concluding the chapter on DOM, in Section 3.6.2, p. 99, I briefly discussed the theoretical background of DOM. One kind of analysis of DOM is the functional explanation, represented by Bosson (1985), Comrie (1986), and Lazard (2001), among others. Lazard (2001) provides a good summary of this view (cf. fn. 4):

“Dans la phrase à deux actants, quand l’objet est indéfini et/ou inanimé, il n’y a pas de confusion possible. Mais s’il est haut situé sur les échelles de définitude et d’humanité et/ou s’il est thématique, il se trouve posséder les mêmes caractéristiques que le sujet et la phrase peut être ambiguë, si le marquage grammatical et/ou l’ordre des mots ne suffisent pas à indiquer clairement les fonctions. On a déduit de ces circonstances l’idée raisonnable que le marquage différentiel de l’objet, qui apparaît justement quand l’objet possède des propriétés subjectales, est fondé sur la nécessité de distinguer les fonctions de sujet et d’objet.”

(Lazard 2001: 880f.)

A prominent idea in the above quote,<sup>4</sup> the functional view in general and Aissen's (2003) formalization of it is that those objects are necessarily morphologically coded in special way that might lead to possible ambiguities or unclear structures. As discussed in Section 3.3 (p. 75), real ambiguities between subject and object might not arise that often, but the intuitive motivation to mark the grammatical relations clearly remains. Other approaches to DOM, like de Swart's (2007), take into account that the speaker might make the task of interpretation easier for the addressee by marking certain objects with special morphology.

For the languages that were discussed above with respect to DOM, this explanation seemed to provide a reasonable description for why there is special morphology on a proper subset of all objects. If we try to extend this suggestion to Hungarian, however, the functional view loses some of its intuitive appeal. Recall that Hungarian direct objects are generally case marked (accusative *-t*), so sentences are never disambiguated just by objective morphology. (Regarding cases when the accusative suffix is lacking, recall the argument made in Section 4.2.1 that dropping the third person possessive suffix is not impossible because of possibly arising ambiguities, since its absence is also ungrammatical in cases where there is no chance an ambiguity could occur.)

This is not to say that no ambiguous structures can arise in Hungarian. This is possible when both the subject and the object have been dropped. In the third person, this is possible if the verb has objective morphology. If the context does not provide any information as to which constituent is the subject and which is the object, the sentence is ambiguous, cf. (131b). Notice that the sentence is just as ambiguous in English.

- (131) a. Mari és Petra sétálnak a parkban.  
           'Mari and Petra are going for a walk in the park.'  
       b. #Megkérdezi: '...'  
           ask-3SG.OBJ  
           #'She asks her: '...'

Obviously, the function of DOM is not to avoid this kind of ambiguity. But note that whenever the arguments of the verb are spelled out, case marking and subject agreement suffice to indicate which arguments are the subject and the object, respectively.

One exception to this might be the case of the special verbal suffix *-lak* (cf. (42), p. 21). (132a) shows this form in the present tense. The 1SG/2 in the gloss refers to the fact that this suffix only appears with a first person singular subject and a second person object. The object might be dropped, as indicated by the parentheses. One could argue that this

<sup>44</sup>*In a sentence with two arguments, when the object is indefinite and/or inanimate, there is no possible confusion. But if it is situated high on the scales of definiteness and animacy and/or it is thematic, it has typical properties of the subject and the sentence can be ambiguous if grammatical coding and/or word order do not suffice to indicate the grammatical relations clearly. From such circumstances, we have derived the reasonable idea that differential object marking, which appears exactly when the object has subject properties, is grounded in the necessity of distinguishing the relations of subject and object."*

suffix serves to avoid a situation where the dropped object cannot be identified. If ‘usual’ objective morphology were present on the verb (cf. (132b)) with second person objects, the form with a dropped object would be ambiguous between a second and a third person object reading. So one might conclude that *-lak* serves to prevent this situation.

- (132) a. lát-lak (téged)  
           see-1SG/2.OBJ (you-ACC)  
           ‘I see you’  
       b. lát-om (őt / \*téged)  
           see-1SG.OBJ (him/her / \*you-ACC)  
           ‘I see him/her.’

However, the form *-lak* is only present with the first person singular subjects. In first person plural forms with second person objects, the verb shows subjective morphology:

- (133) a. lát-unk (téged)  
           see-1PL.OBJ (you-ACC)  
           ‘We see.’ or ‘We see you.’  
       b. lát-juk (őt / \*téged)  
           see-1PL.OBJ (him/her / \*you-ACC)  
           ‘We see him/her/you.’

Interestingly, just as in (132b), objective morphology is excluded with first person subjects and second person objects, in both numbers. (133a) is in fact ambiguous, not, however, between two different transitive readings, but rather between an intransitive and a transitive reading. Determining the correct interpretation of this ambiguity is different from determining the correct referent of a dropped object. Crucially, objective morphology can in no way help to disambiguate in this case, since it leads to ungrammaticality.

I conclude that case marking and other factors sufficiently mark the object in Hungarian and that the objective conjugation does not make any contribution to determining which constituent serves as the direct object. When a structure is ambiguous, it is because the referents of the respective grammatical functions cannot be identified from the context. Such situations, as in (131), are pragmatically odd cross-linguistically. Differential marking in Hungarian is thus redundant in this respect: the often stated function of identifying particular direct objects cannot be the function of the objective conjugation in Hungarian.

## 4.4 The history of DOM in Hungarian

In the sections above, I highlighted a few aspects in which Hungarian differential marking seems to differ from DOM in other languages. In this section, I will discuss proposals of how the system in present day Hungarian might have arisen. I will focus on aspects of

this development that might explain some of the seemingly peculiar characteristics of the paradigms in question, viz. the redundancy of objective marking and the restrictions in person.

### 4.4.1 Marking topicality

The background for a recent proposal by É. Kiss (to appear, 2011) is found in a paper by Marcantonio (1985) who provides an analysis of the history of the subjective and objective conjugation in Hungarian.

Her aim is to illustrate what lead to the system in present day Hungarian in which the objective conjugation “presents itself now as a pure, apparently unmotivated, morphological split” (Marcantonio 1985: 270). Roughly, Marcantonio’s (1985) analysis is based on the assumption that several instances of grammaticalization and reanalysis of case marking and verb morphology gave rise to the distribution of the objective conjugation in present day Hungarian. The development of the objective conjugation, she suggests, took place in various stages, each of which is characterized by different grammatical properties.

It is a common assumption that Hungarian at one point in its history did not mark all direct objects with the current accusative suffix *-t*. This is suggested in É. Abaffy (1991, 1992), based on the definiteness of the direct object, for example. Marcantonio (1985: 280) suggests that, originally, it was not definiteness that triggered case marking, but rather topicality. She suggests a functional motivation, based on the fact that topical objects are a special case (“less frequent” than topical subjects, cf. Marcantonio 1985: 280). Either way, this resembles DOM in that some, but not all objects are case marked.

The assumptions put forth in Marcantonio (1985: 281f.) about the further development make up three different stages:

**Stage (A)** Topical direct objects were case marked, but nothing else; crucially, this marking was in nominal morphology, not in verb morphology.

**Stage (B)** involves (or follows) the spread of accusative marking to all direct objects, making it non-differential object marking. Marcantonio suggests that the original function of *-t* was picked up by verb morphology. Marcantonio (1985: *ibid.*): “This different means of marking was precisely realized marking the V co-occurring with a topicalized/definite DO, so that the splitting between [an objective conjugation] vs [a subjective conjugation] arose ...”

**Stage (C)** is characterized by the grammaticalization of a syntactic topic position, as in contemporary Hungarian (cf. É. Kiss 1994, 2002, among others). A position reserved for topical constituents obviously would have made marking topical objects in verb morphology redundant, leading, in Marcantonio’s (1985) words, to “now irrelevant morpho-syntactic signalling of the definite DO” (p. 282).

Typologically, this kind of development might not be uncommon, cf. Givón (1976), Bresnan and Mchombo (1987) and Havas (2004). Verb agreement with topical arguments in general and objects in particular is possible and documented. This has also been shown to hold for Northern Ostyak (cf. Section 3.5.2) which is related to Hungarian.

Consider what kind of data can provide direct evidence for Stage (B), in which objective morphology is claimed to co-occur with topical, but not necessarily definite objects: we would expect to find objective verb forms with indefinite direct objects as well as subjective verb forms with definite direct objects. Such evidence can in fact be found, consider the following examples.

In (134), possessive structures co-occur with the subjective conjugation. These examples are from historical texts from the 15th century (cited in Marcantonio 1985: 290f., (134b) also in É. Kiss to appear). The translations are from Marcantonio 1985).

- (134) a. ... nepnèc zabadolas-a-t es jövendő gőzödélm-é-t  
 people-DAT liberation-3SG.PX-ACC and future glory-3SG.PX-T  
 mutat-Ø  
 show-3SG.SUBJ  
 ‘it shows the liberation of the people and its future glory’ (Bécsi K. 292<sup>5</sup>)  
 b. ... es ottan ven-Ø yfteny malaszt-nak lataf-a-tt  
 and there get-3SG.SUBJ god grace-DAT view-3SG.PX-ACC  
 ‘and there he got the view of the grace of God’ (Jókai K. 131<sup>6</sup>)

(134a,b) show a definite possessed object with the subjective conjugation. These forms would be ungrammatical in contemporary Hungarian.

In the following example, the relevant element is *mēdenékèt*. The corresponding contemporary expression ‘all these’ or ‘all those’ would trigger the objective conjugation.

- (135) ... mēdenè-k-èt Iudit-nak ada-nak mēllèc ...  
 all that-PL-ACC Iudit-DAT give-3PL.SUBJ which  
 ‘they give to Iudit all that ...’ (Bécsi K. 44<sup>7</sup>)

While (135) and (134) illustrated the occurrence of the subjective conjugation with definite objects, (136) shows the objective form *getrette* with the topicalized pronoun *kit* ‘whom’. In present day Hungarian the verb would be in the subjective form.

- (136) a. Kit Amasius királ auag pap gákorta getre-t-te ...  
 whom A. king or priest often torture-PAST-3SG.OBJ  
 ‘whom king or priest Amaziah often tortured’ (Bécsi K. 214<sup>8</sup>)

<sup>5</sup>[http://kt.lib.pte.hu/cgi-bin/kt.cgi?konyvtar/kt06010401/1\\_0\\_2\\_pg\\_174.html](http://kt.lib.pte.hu/cgi-bin/kt.cgi?konyvtar/kt06010401/1_0_2_pg_174.html)

<sup>6</sup>[http://kt.lib.pte.hu/cgi-bin/kt.cgi?konyvtar/kt06010401/7\\_0\\_2\\_pg\\_64.html](http://kt.lib.pte.hu/cgi-bin/kt.cgi?konyvtar/kt06010401/7_0_2_pg_64.html)

<sup>7</sup>[http://kt.lib.pte.hu/cgi-bin/kt.cgi?konyvtar/kt06010401/1\\_0\\_2\\_pg\\_26.html](http://kt.lib.pte.hu/cgi-bin/kt.cgi?konyvtar/kt06010401/1_0_2_pg_26.html)

<sup>8</sup>[http://kt.lib.pte.hu/cgi-bin/kt.cgi?konyvtar/kt06010401/1\\_0\\_2\\_pg\\_123.html](http://kt.lib.pte.hu/cgi-bin/kt.cgi?konyvtar/kt06010401/1_0_2_pg_123.html)

How to interpret these data? Details of the development are dubious, but not all relevant for the present thesis. An interesting, though not quite closed question is whether the development of the objective conjugation and the spread of the accusative suffix *-t* to all direct objects were parallel changes (É. Abaffy 1991 argues for this, Havas 2004 against it). In the data above, accusative marking and objective morphology are both established. É. Kiss (2011: 4) cites an example of a direct object *without* accusative *-t*, in a non-finite phrase, however:

- (137)  $\emptyset$  kenčec- $\emptyset$  megnítuan, aianl-anac neki aiandokoc-at  
 their treasures- $\emptyset$  unlocking offer-SUBJ.3PL him presents-ACC  
 ‘unlocking their treasures they offer him presents’ (Müncheni K. 2,11<sup>9</sup>)

Evidence of this kind, for Marcantonio’s (1985) stage A, turns out to be quite rare. Most of the examples just shown provide evidence for stage B, illustrating agreement with a topical object. Marcantonio’s stage C refers to the development of a syntactic topic position in the Hungarian clause. In the literature, the common view is that the Hungarian clause is structured as in (138), divided into a predicate-external Topic and Focus position and a predicate phrase:

- (138) [<sub>Top</sub> DP<sub>1</sub> [<sub>Foc</sub> DP<sub>2</sub> [<sub>VP</sub> V ]]]

According to structure (138), a noun phrase that is the topic of the clause will be located in the position topic position, cf. DP<sub>1</sub>. If the topic is marked syntactically by its position, marking it on the verb is redundant (cf. Marcantonio’s quote above).

As long as the definite article did not arise, the objective paradigm could have been reanalyzed as a marker of definiteness, as has been argued for Swahili and other Bantu languages by Givón (1976) and Morimoto (2002). These markers arguably originated as markers of topicality. Again, details of the rise of the definite article are not directly relevant for the present discussion. The main issue is that at some point, the objective paradigm became completely redundant, since all of its (possible) original uses, such as marking topicality or definiteness, were taken over by other morphosyntactic mechanisms (a syntactic position for topics, a lexical item for definiteness).

## 4.5 DP and definiteness

What *does* the objective paradigm mark, then? In the approaches to this problem reviewed above, I mentioned two competing explanations: on the one hand, the DP hypothesis, based on the idea that those direct objects that require objective morphology project more structure than others, viz. a DP. On the other, Coppock and Wechsler (2011) argue for a morphological feature that is present on exactly those types of noun phrases

<sup>9</sup>[http://kt.lib.pte.hu/cgi-bin/kt.cgi?konyvtar/kt06010401/1\\_0\\_2\\_pg\\_196.html](http://kt.lib.pte.hu/cgi-bin/kt.cgi?konyvtar/kt06010401/1_0_2_pg_196.html)



that trigger objective morphology. I will not repeat all arguments in favor and against these theories, in this section, I will rather propose a possible solution for one of the problems with the DP hypothesis, arguing that basing the object agreement on structural factors provides a superior explanation for the phenomenon in question.

In Section 2.3.4, I argued that possessive constructions do not have to be definite and yet require objective morphology. A consequence of this is that the objective paradigm should not be interpreted as being triggered by semantic definiteness. For the DP hypothesis, this situation is not necessarily a problem, since possessive noun phrases obviously project more structure than simple noun phrases (cf. further discussion in Section 2.3.4). However, the resulting analysis is such that, apparently, some indefinite noun phrases can project the category DP, which is often associated with the concept of definiteness (as argued in Section 2.2.3).

### 4.5.1 Pronouns

In my view, Bartos' (1999) suggestion that first and second person pronouns do not project DPs, but only NumPs, is more problematic for the DP hypothesis. While he provides certain arguments for this view, his main motivation seems to avoid attributing these DP status. This has a very undesirable consequence, however. Pronouns are quite certainly definite, i.e., if they do not project DPs, we have a further mismatch between structure and definiteness: not all definites project DP. If this were the case, the category D in Hungarian could hardly be provided with a straightforward semantic contribution. Recall that Danon (2006) argues for a similar situation in Hebrew, where all DPs are definite, but not all definites project a DP. I want to argue that in Hungarian, all definites are DPs.

The argument starts with a proposal by Coppock and Wechsler (2010a), introduced in Section 2.4.4, that differences in object agreement can be explained by the loss of different feature specifications. They argue that the objective conjugation is restricted to the third person, because only third person pronouns were originally incorporated into verb morphology. The specification for agreement with third person direct objects can be represented as follows (repeated from (91)):

$$\begin{array}{lcl}
 & V_{aff} & (\uparrow \text{OBJ}) = \downarrow \\
 & & (\downarrow \text{OBJ}) = \text{'pro'} \\
 (139) & & (\downarrow_{\sigma} \text{DF}) = \text{TOPIC} (\uparrow \text{OBJ DEF} =_c +) \\
 & & (\downarrow \text{INDEX PERS}) = 3 \\
 & & (\downarrow \text{INDEX NUM}) = n \in \{\text{SG, DU, PL}\}
 \end{array}
 \quad (\text{Coppock and Wechsler 2010a: 10})$$

The third line in (139) indicates that a verbal affix with this feature specification only appears in the context of a direct object marked with Coppock and Wechsler's feature [DEF]. As mentioned in the discussion following (91) (p. 67), Coppock and Wechsler (2010a) further restrict the feature specification to include only [DEF], but no specification

for number, based on the fact that reflexive pronouns of all persons trigger the objective conjugation.

Imagine that we do not follow the last step in this reasoning but keep the feature specification in (139) with the slight modification that it is not [DEF], but the category DP that triggers the presence of the affix.<sup>10</sup> We thus have a system where certain morphology is triggered by third person DPs. I think that this has several advantages:

- A more homogeneous treatment of personal pronouns could be possible. If agreement is in fact only triggered by third person DPs, then the phrasal status of first and second person pronouns would be irrelevant. However, analyzing them as DPs instead of NumPs would have no negative consequences and would provide the following advantage:
- Treating all pronouns as DPs would eliminate one aspect of the mismatch mentioned above. All semantically definite noun phrases could project a DP, which would keep up a correlation between syntactic structure and a certain semantic contribution, though only in one direction — all semantically definite noun phrases would project DP. This implication does not necessarily rule out other noun phrases projecting the same structure (e.g., possessives).
- Finally, linking semantic definiteness and the category D could provide an elegant explanation for the different morphosyntactic behavior of the distributive universal quantifiers *minden* ‘every’ on the one hand and *valamennyi* and *mindegyik* ‘each’ on the other. See the following section for this argument.

#### 4.5.2 *valamennyi* and *minden* revisited

This section is based on certain insights by Beghelli and Stowell (1997) about the universal quantifiers *every* and *each*. Some of their proposals have analogues in Hungarian and I will use the differences to argue for a different syntactic structure of noun phrases involving the corresponding Hungarian quantifiers *minden* ‘every’ and *mindegyik* and *valamennyi* ‘each’.

I have discussed the quantifiers *minden* and *valamennyi* in Sections 2.3.4 and 2.4.3, respectively. Recall that Coppock and Wechsler (2011) criticized Bartos’ treatment of *minden* with examples like (90), p. 64. The behavior of *minden* and *valamennyi* with respect to the definite article is quite similar: neither quantifier can appear directly next to it, but only when there is intervening material. If the definite article is present, noun phrases with either quantifier trigger the objective conjugation, but if it is not, only those including *valamennyi* do. Coppock and Wechsler (2011) argue that this is evidence for

<sup>10</sup>For the moment, I ignore the question whether the different theoretical frameworks are compatible enough to allow this assumption. For the purpose of illustration, this should do.

the fact that both quantifiers should project the same structure, but *minden* lacks [DEF] and *valamennyi* does not. They do not, however, provide independent evidence for this suggestion.

Beghelli and Stowell (1997) present the following paradigm to illustrate a striking difference between English *every* and *each*. As they put it, “[a] further difference between *each* and *every* pertains to the fact that *every*-D[istributive]Q[uantifier]Ps can be construed generically, whereas *each*-DQPs cannot” (Beghelli and Stowell 1997: 100).

- (140) After devoting the last three decades to a study of lexical semantics, George made a startling discovery.
- a. Every language has over twenty color words.
  - b. All languages have over twenty color words.
  - c. ?Each language has over twenty color words.
  - d. ?The languages have over twenty color words.
- (Beghelli and Stowell 1997: 100)<sup>11</sup>

The generic statement about languages that is required after the context in (140) is arguably better with *every* and *all* than with *each* or simply *the*. A similar contrast can be seen if the context introduces a certain set of languages into the discourse, as in (141).

- (141) George has just discovered ten hitherto-unknown languages in the Papua New Guinea highlands.
- a. ?Every language has over twenty color words.
  - b. ?All languages have over twenty color words.
  - c. Each language has over twenty color words.
  - d. The languages have over twenty color words.
- (Beghelli and Stowell 1997: 100, cf. fn. 11 above)

With a specified domain (ten languages), the quantifier *each* can appear as a follow-up to the context in (141). *every* and *all* tend to be interpreted generically, while *each* patterns with the definite article. Beghelli and Stowell (1997: *ibid.*) cite David Gil (again, cf. fn. 11): “while for *every*, the domain of quantification is free, for *each* it is contextually determined.” Gil is quoted as attributing to *each*, but not to *every*, a feature [+Definite]. The Hungarian paradigms corresponding to (140) and (141) give similar results:

- (142) After devoting the last three decades to a study of lexical semantics, George made a startling discovery.
- a. Minden nyelv-ben több mint húsz színekifejezés használatos.  
every language-INE more than twenty color word in use

<sup>11</sup>Beghelli and Stowell attribute this paradigm to Gil (1992), that paper, however, does not include it.

- b. Az összes nyelvben több mint húsz színekifejezés használatos.  
the all ...
  - c. ?Valamennyi nyelvben több mint húsz színekifejezés használatos.  
each ...
  - d. ?Mindegyik nyelvben több mint húsz színekifejezés használatos.  
each ...
- (143) George has just discovered ten hitherto-unknown languages in the Papua New Guinea highlands.
- a. ?Minden nyelvben több mint húsz színekifejezés használatos.
  - b. ?Az összes nyelvben több mint húsz színekifejezés használatos.
  - c. Valamennyi nyelvben több mint húsz színekifejezés használatos.
  - d. Mindegyik nyelvben több mint húsz színekifejezés használatos.

(142) and (143) show that, as in English, the Hungarian quantifiers corresponding to *each* can pick up the contextual restriction. The difference between (143a) and (143d) can be put as follows: in (143d), the subject phrase is understood as *each of the ten languages in question*, while this interpretation is not as easily accessible in (143a). Things are not as clear as they seem, however. Beghelli and Stowell (1997) provide another paradigm that neutralizes this difference:

- (144) Emma and Anna found lots of beautiful shells on the beach.
- a. They examined each shell carefully.
  - b. They examined every shell carefully.
  - c. They examined all the shells carefully.
  - d. ?They examined all shells carefully. (Beghelli and Stowell 1997: 100f.)
- (145) Emma and Anna found lots of beautiful shells on the beach.
- a. Minden kagylót szorgalmasan megvizsgál-t-ak.  
every shell carefully examine-PAST-3PL.SUBJ
  - b. Az összes kagylót szorgalmasan megvizsgálták.  
the all ...
  - c. Valamennyi kagylót szorgalmasan megvizsgálták.  
each ...
  - d. Mindegyik kagylót szorgalmasan megvizsgálták.

If (145a-d) are all more acceptable than previous examples, we have to conclude that the right context can provide a *minden*-headed noun phrase with an apt domain restriction that is interpreted in (145a) as *every shell that they found* and not generically as in (143) above. Beghelli and Stowell (1997) suggest that

“[t]he set variable of *each*, we will now assume, must be bound by a definite operator—as required by its definiteness features, which we have re-

viewed above. On the other hand, the set variable introduced by *every* can be bound by other operators as well, including GEN.”

(Beghelli and Stowell 1997: 102)

So *every* and *minden* can be bound by different operators, leading to different interpretations (as reviewed above), while *each*, *valamennyi* and *mindegyik* are more constant in their interpretation. I want to suggest that this difference in interpretation might be related to the different morphosyntactic behavior of these quantifiers. Recall that *valamennyi* and *mindegyik* trigger the objective conjugation, while *minden* does not. The above examples provided independent evidence for the more definite nature of the former quantifiers. If we, moreover, accept the suggestion that all pronouns are DPs and that the projection DP therefore is associated with semantic definiteness, the obligatory definite operator binding *each* and *valamennyi* or *mindegyik*, respectively, could be argued to make projecting DP necessary for these quantifiers, but not for *minden*.<sup>12</sup>

A possibly related morphosyntactic difference between *minden* on the one hand, and *valamennyi/mindegyik* on the other is that the latter, but not the former, can appear on their own, case marked, without their complement noun, as in (146).

(146) Emma and Anna found lots of beautiful shells on the beach.

- a. Mindegyik-et megvizsgál-t-ák.  
each-ACC investigate-PAST-3PL.OBJ  
'They investigated each one.'
- b. Valamennyi-t megvizsgálták.  
each-ACC ...
- c. #Minden-t megvizsgálták.  
everything-ACC ...

While the quantifiers in (146a-b) are readily interpreted as *each shell*, this is not possible in (146c). A possible objection to this argument might be, however, that *minden* on its own is simply a different lexical item from *minden* that takes a noun as its complement.

### 4.5.3 The structure of DP

The above suggestions raise a few questions. Whether it is justified to attribute more structure to *valamennyi/mindegyik* than to *minden* based on the differences just mentioned might be doubtful. While there seems to be independent evidence for the differences between these quantifiers, there are many further aspects of universal quantifica-

<sup>12</sup>Note that the evidence from the paradigms presented above could be taken as evidence for the morphological hypothesis by Coppock and Wechsler (2011). However, it seems to me that we are dealing with semantic definiteness here, which Coppock and Wechsler's [DEF] does not quite correspond to, cf. *inter alia* possessive structures.

tion that I did not mention here (cf. Beghelli and Stowell 1997 for further differences and similarities, and also Szabolcsi 2010 for many more).

What about the exact structure of the noun phrase? Taking the DP hypothesis seriously, *minden* should be located in a projection below DP, possibly NumP. Now, given examples like (82), p. 57, adapted in (147), suggest that *valamennyi/mindegyik* cannot be located in D, since that position can be filled by the definite article (recall that this is Coppock and Wechsler's criticism directed at Bartos' analysis of these quantifiers). The following examples are based on Szabolcsi (1994: (106-7), p. 222f.).

- (147) a. \*Eltitol-om                      a    minden/valamennyi találkozás-t.  
           keep secret-1SG.OBJ the every/each                      meeting-ACC  
           intended: 'I keep every/each meeting secret.'
- b. Eltitol-om                      a    veled    való    minden/valamennyi találkozás-t.  
           keep secret-1SG.OBJ the with-2SG being every/each                      meeting-ACC  
           'I keep every/each meeting with you secret.'

(147a) illustrates again that *minden* and *valamennyi* cannot directly follow the article *a(z)*; this leads Szabolcsi (1994) to propose her rule of haplology, deleting the article in certain cases. If there is intervening material, however, the presence of the definite article is fine. Note that in (147b), the objective conjugation is the only possibility, even with *minden*.

Now, if *valamennyi* and *mindegyik* do not have the same position as *a(z)* and my suggestion above is correct, they should project empty D, following Szabolcsi (1994), if there is no intervening material. In (147b), *a* and *valamennyi* are split apart by another phrase and the article can appear. (148) illustrates the different structures (cf. also Coppock and Wechsler 2011: 19f.):

- (148) a. [DP [D Ø] [NumP [DetP [Det valamennyi/mindegyik] ...]]]  
       b. [NumP [DetP [Det minden] ...]]

#### 4.5.4 The contribution of D

The differences between (148a) and (148b) could explain how *valamennyi/mindegyik* pick up the domain restriction in the relevant contexts and why they trigger the objective conjugation. But projecting empty D<sup>0</sup> is obviously not the only way to restrict the domain on quantification. Take the following example, a modification of (143) above.

- (149) George has just discovered ten hitherto-unknown languages in the Papua New Guinea highlands.
- a. ?Minden nyelv-ben    több mint húsz    színekifejezés használatos.  
       every    language-INE more than twenty color word    in use  
       'Every language uses more than twenty color words.'

- b. Minden George által felfedezett nyelv-ben több mint húsz  
every G. by discovered language-INE more than twenty  
színkifejezés használatos.  
color word in use  
'Every language discovered by George uses more than twenty color words.'
- c. A George által felfedezett minden nyelv-ben több mint húsz  
the G. by discovered every language-INE more than twenty  
színkifejezés használatos.  
color word in use

As (149b) shows, spelling out the restriction on the domain of quantification (*discovered by George*) rescues the use of *minden* as a follow-up to the context given. There is no difference in interpretation between noun phrases as in (149b) and (149c), i.e., it does not make any difference whether the restriction is expressed following *minden* (as in (149b)) or between the article and the quantifier (as in (149c)).

One *morphosyntactic* difference between (149b) and (149c) remains, however. The former does not, while the latter does trigger the objective conjugation (when a direct object). This puzzling fact has been known for some time. For Bartos (1999), this is simply attributed to the absence and presence of the article *a(z)*, respectively. As mentioned, Coppock and Wechsler (2011) take issue with this explanation, arguing that *minden* should be just as compatible with *a(z)* as *valamennyi*. The similarity in the syntactic behavior of the two quantifiers is obvious, yet the difference with respect to domain restriction provides evidence for the different nature of *valamennyi* and *mindegyik*.

I argue that the equivalent interpretation of (149b) and (149c) is in a way coincidental, and that the logical form of (149b) is actually different than the logical form of the same noun phrase with *valamennyi* or *mindegyik*. To appreciate this argument, I repeat some of the relevant examples in (150).

- (150) George has just discovered ten hitherto-unknown languages in the Papua New Guinea highlands.
- a. ?Minden nyelv-ben több mint húsz színkifejezés használatos.  
every language-INE more than twenty color word in use  
'Every language uses more than twenty color words.'
  - b. Valamennyi nyelvben több mint húsz színkifejezés használatos.  
each ...
  - c. Mindegyik nyelvben több mint húsz színkifejezés használatos.
  - d. Minden George által felfedezett nyelv-ben több mint húsz  
every G. by discovered language-INE more than twenty  
színkifejezés használatos.  
color word in use  
'Every language discovered by George uses more than twenty color words.'

Let us take a look at the logical form of these examples. I am following Beghelli and Stowell (1997) who argue, as mentioned above, that *every* can be bound by various operators while *each* is bound by a definite operator. To a generic utterance like *Every dog has a tail*, they attribute the interpretation “in the default situation *s* where *X* is the set of all dogs in *s*, all members of *X* have a tail” (Beghelli and Stowell 1997: 101). As a non-generic reading, as in *Every boy lifted the piano*, they give “there is a (particular) past situation *s*, a set *X* of all boys in *s*, such that all the members of *X* lifted the piano.” (p. 102).

Applying this to (150a) gives the generic meaning shown, informally, in (151).

- (151) ‘in the default situation *s*, where *X* is the set of all languages in *s*, all members of *X* use more than twenty color words’.

For a particular situation, it might be possible to interpret (150a) as (152). Again, this is analogous to Beghelli and Stowell’s (1997) suggestion.

- (152) ‘there is (particular) situation *s*, a set *X* of all languages in *s*, such that all the members of *X* use more than twenty color words’

In contrast, Beghelli and Stowell (1997: 102) suggest, as quoted, that the set variable that *each* introduces is bound by a definite operator. This operator is able to pick up the domain restriction of the context, as seen in the examples above. So, roughly, the relevant parts of (150b) and (150c) are interpreted as

- (153) ‘the unique set *X* of all languages George discovered in *s* is such that all the members of *X* use more than twenty color words’

What is the interpretation of (150d), then? In (150d), the domain restriction is spelled out, so it is part of the specification of the set variable that is quantified over. However, there is no change in the nature of the quantifier binding this variable. The interpretation of (150d) is shown in (154):

- (154) ‘there is (particular) situation *s*, a set *X* of all languages that George discovered in *s*, such that all members of *X* use more than twenty color words’

My point is that (153) and (154) have the same interpretation in the particular context given, but have different logical forms (which I have only hinted at quite informally). This difference can be illustrated with another simple example. Imagine a situation in which there are five women, one of whom is wearing a hat. The expressions (155a) and (155b) differ in definiteness, but in this particular situation their reference is the same, since there is only one woman with a hat.

- (155) a. the woman with a hat  
b. a woman with a hat



If the above reasoning is correct, the difference in (155) and the differences in the logical forms of the *valamennyi/mindegyik* and *minden* phrases are analogous. Even though the referent of (155a) and (155b) is the same individual in the given situation, we would not say that this makes (155b) a definite description. This reasoning should hold for (154) as well. Even though it describes the same set of languages as the sentence with *each*, only the latter has a definite interpretation. The meaning of the former merely “seems” definite, since it denotes the same as the definite description.

Something remains to be said about the difference between (156a) and (156b). Again, these sentences have the same interpretation, but I want to claim that they have different logical forms.

- (156) a. minden George által felfedezett nyelv  
           every G.     by   discovered language  
           ‘every language discovered by George’  
       b. a George által felfedezett minden nyelv  
           the G.     by   discovered every   language  
           ‘(156a)’

Given the discussion above, if one were to argue that *a(z)* contributes a definite operator to its complement noun phrase, the only difference would again be in the logical form, arguably giving (153) with a description like ‘the unique set’ instead of the one shown in (154). The differences, then, are structural and morphosyntactic ((156b) triggering the objective conjugation), but not in interpretation. Imagine again the situation illustrated in (155). The addition of the definite article in (156b) corresponds to a phrase like *the one woman with a hat* in (155), which, in the context above, would refer to the same individual as (155a,b).

If this line of reasoning is valid, we can state the following generalization:

- (157) A semantically definite noun phrase projects DP in Hungarian.

With (157), we get rid of one of the mismatches presented above, since all pronouns can be DPs, and the category DP has a uniform semantic contribution, providing additional evidence for an account of the Hungarian objective conjugation based on the structural properties of direct objects.

### 4.5.5 Conclusions

In this section, I tried to argue that the DP hypothesis can be simplified and amended in a few ways. Following Coppock and Wechsler (2010a), I showed that based on the assumption that only third person pronouns were the source of the objective conjugation, one can restrict object agreement to third person DPs. In addition, this restriction makes

it possible to treat all pronouns uniformly by attributing them all the syntactic category of DP. I argued that this is desirable since they are all semantically definite.

This led to the assumption that definiteness and the category DP are after all related in Hungarian; additional evidence for this hypothesis was provided by paradigms involving *valamennyi/mindegyik* ‘each’ and *minden* ‘every’ that showed that these quantifiers lead to different interpretations in addition to their different morphosyntactic behavior. I argued that the difference in interpretation can be related to the presence of (silent)  $D^0$  in noun phrases with *valamennyi/mindegyik*.

In the following section, I speculate what consequences this might have for a theory of DOM in general and Danon’s (2006) assumption of “structural” DOM.

## 4.6 Structural DOM

In Section 4.1.1 above, I discussed Danon’s (2006) analysis of DOM in Modern Hebrew. He claims that it is only the structural property of projecting DP (and thus checking Case) that constitutes the system of DOM in that language.

The above arguments in favor of a structural trigger of objective morphology in Hungarian provide further evidence for a system of DOM that cannot be described in terms of semantic or pragmatic properties. In fact, DOM in present day Hungarian might present an example of the development Danon (2006: 1005) sketches: “from a diachronic perspective, DOM might initially arise out of functional factors, and later, as grammaticalization proceeds, become syntactically governed.”

The data from presented in Section 4.4.1 show the objective conjugation had a different distribution in earlier stages of Hungarian, viz. agreement with topical direct objects (cf. also the discussion of Ostyak above). Very early stages of Hungarian, where the presence of the accusative suffix *-t* supposedly marked definiteness or topicality are not accessible. What the data above make clear, however, is that the distribution of the objective conjugation has changed in time. The grammaticalization of the Topic position in the clause and the development of the definite article surely influenced this distribution.

This development depicts the steps that an originally functionally based system of DOM might undergo to become structural: the present system is redundant and lacks a functional base. What this means for a theory of DOM is that while parameters like definiteness, animacy and topicality can account for a range of DOM phenomena in several languages, such systems can change and leave a residue that is not straightforwardly explained with these categories.

Whether the scales that figure prominently in Aissen’s (2003) account of DOM provide a useful tool for the analysis of this kind of structural DOM is doubtful, simply because in the case of Hebrew and Hungarian, we are dealing with a simple opposition between DP/non-DP category. The definiteness and animacy scales were introduced to account for fine-grained levels of prominence that influence differential marking in several languages.

Syntactic structure alone is a different kind of concept that is not as easily spread out along prominence hierarchies. I do not attempt to answer whether this difference on its own can account for the lack of a function of the objective conjugation.

## 4.7 Summary and conclusions

In this chapter, I considered whether and how Hungarian object agreement can be seen as an instance of DOM, as presented in Chapter 3. The first sections of this chapter raised the question whether the properties that might govern the distribution of the objective conjugation in Hungarian are compatible with a theory of DOM. The answer to this question was that the structural trigger in Hungarian is reminiscent of DOM in Hebrew that is based on the same property (though with some differences).

I argued that this structural base differs from most triggers of DOM in other languages, as discussed in Aissen (2003), Bossong (1985), Enç (1991), Keine and Müller (2008), Morimoto (2002), etc., where semantic and pragmatic properties were the main factors that account for the distribution of differential morphology. A trigger that is not semantic or pragmatic does not disprove the standard account of DOM, it just requires an extension of the theory. Similarly, Hungarian is different to many other languages regarding the nature of the morphological expression of differential marking. First, in most languages under discussion, differential morphology is expressed in or around the noun phrase and not on the verb, though this is probably an irrelevant issue. Second, the nature of the alternation of morphological expression has been the topic of some debate. Aissen (2003) suggested that differential morphology is privative, i.e., DOM shows zero/non-zero alternations. Keine and Müller (2008) argue against this suggestion with data from languages that show non-zero/non-zero alternations. They claim, however, that one member of the alternation is more iconic than the other and that this member is the one expressing morphology on the more prominent objects.

I argued at length that the morphological differences between the subjective and the objective conjugation are not always expressed as zero/non-zero alternations, albeit very prominently so in the third person singular present tense and present plural forms. About half the objective forms (among them all first and second person singular forms) show no regular alternations that fit either Aissen's (2003) or Keine and Müller's (2008) generalizations. Another point stressed in this chapter was that the functional explanations that have been proposed to account for DOM are irrelevant for Hungarian. Synchronically, this is because the objective paradigm is redundant. Diachronically, I argued, this might be due to the fact that the rules governing the objective conjugation today arose via grammaticalization and reanalysis of earlier non-redundant strategies of marking definite or topical objects.

Finally, I provided evidence for one of the two analyses of the objective paradigm, arguing for the DP hypothesis. If my proposals are correct, it is possible relate semantic

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definiteness to the category DP and avoid certain mismatches between structure and interpretation. The relationship between the Hungarian objective conjugation and DOM was shown to be similar to what Danon (2006) proposed for DOM in Hebrew. In these languages, DOM seems to be purely structural and defies functional explanations.

## 5 Conclusions and open questions

This final chapter provides an overview of the main arguments of this thesis, summarizes its conclusions and lists some of the many open questions that I have not provided answers to or not addressed in the previous sections.

### 5.1 Summary

In the first two chapters, I introduced the so called objective conjugation in Hungarian. The purpose of the first chapter was to illustrate a wide range of data illustrating the use of the subjective conjugation on the one hand, and the objective conjugation on the other. I also discussed the morphological structure of the paradigms.

The second chapter discussed theoretical approaches to the objective conjugation. I reviewed two competing approaches, the DP hypothesis proposed by Bartos (1999), and the morphological analysis by Coppock and Wechsler (2011). Both of these theories focus on the question what is property is exactly responsible for triggering the objective paradigm on verbs. As I discussed extensively, the former approach favors a structural trigger, while the latter is based on the presence of a feature that is present on certain morphemes, referred to as [DEF].

The third chapter introduced the phenomenon of differential object marking (DOM) by giving an overview of some of the recent literature on this topic. Several languages with slightly different versions of DOM were discussed to illustrate the analysis of DOM suggested by Aissen (2003). She suggests that, languages tend to mark objects that are high on prominence scales, based on the empirical generalization that objects tend to be less definite, less animate and less topical than subjects; this approach has been referred to as a functional explanation of DOM. I discussed criticism that has been directed at several aspects of Aissen's (2003) approach to DOM, including the nature of morphological alternations (cf. Keine and Müller 2008), the concept of markedness as well as the notion of prominence scales. The last aspect is discussed by Jelinek and Carnie (2003) and Carnie (2005) who argue that prominence scales are a vague concept whose theoretical status is unclear. They suggest that an approach based that relates prominence (definiteness, topicality, animacy) with structural prominence (position in syntax) is preferable.

## 5 Conclusions and open questions

Chapter 4 combined the discussion of Hungarian object agreement with and DOM. As I showed the properties that figure in much of the literature on DOM cannot explain the distribution of the objective conjugation in Hungarian. Adopting the DP hypothesis, I argued that the DOM system of present day Hungarian is sensitive to structural, but not semantic or pragmatic properties of direct objects. I discussed a similar situation in Hebrew, analyzed by Danon (2006). The conclusions reached are illustrated in the following section.

### 5.2 Findings

Most of this thesis discussed recent literature on two phenomena: Hungarian verb paradigms and differential object marking. My own contribution, albeit modest, is to try and relate these two phenomena. The motivation behind this is quite obvious: at first glance, Hungarian verb paradigms show a distribution that resembles a split between definiteness and indefiniteness. While this is not the case, the correlation is striking enough to suggest the conclusion that this semantic distinction has something to do with the distribution of the paradigms.

That object marking is differential in Hungarian is a truism — yet I found worth investigating the question of how this differential marking relates to the theory of DOM that was presented in Chapter 3. It turns out that several of the properties that researchers have attributed to languages with DOM are barely relevant for Hungarian. Since I have addressed these above, I merely repeat them: differential marking in Hungarian does not serve the purpose of disambiguating structures, i.e., if there is a functional motivation, it is rather weak. The differential morphological expression is diverse and not straightforwardly analyzed as the addition of an object agreement morpheme to verb morphology. Finally, none of the properties of definiteness, topicality and animacy are responsible for triggering the objective conjugation.

Following the literature on DOM, these facts seem untypical. Another language with DOM that has idiosyncratic properties is Hebrew. What links Hebrew and Hungarian is that in these languages, prominence scales based on definiteness, animacy and topicality do not suffice to explain how object marking differs from case to case. What further links them is the explanation Danon (2006) provides: a structural, or syntactic, trigger. He goes on to assume that DOM might start out as functionally motivated, based on semantic and pragmatic properties, while potentially losing this basis diachronically. Hungarian seems to provide evidence for this assumption. As argued based on diachronic data, a former system of DOM based on definiteness or topicality went through several instances of reanalysis and grammaticalization to result in the “structural” DOM of present day Hungarian.

To strengthen this position, in Chapter 4 I tried to provide additional evidence in favor of the DP hypothesis. In particular, I presented an argument that explained the different

behavior of the quantifiers *valamennyi/mindegyik* ‘each’ and *minden* ‘every’ with respect to triggering the objective conjugation. I argued that there is independent evidence that allows us to attribute more structure to *valamennyi* and *mindegyik* than to *every*. I concluded that semantic definiteness relates to the objective conjugation indirectly, through the category DP, which all definites project. This makes it possible to avoid postulating the in my opinion undesirable situation in which there are definite noun phrases that do not project DP while there are indefinite noun phrases that do, as argued by Bartos (1999). This would sever the link between a semantic contribution of the functional category  $D^0$  and its structural distribution. My arguments made it possible to keep this link by requiring definite noun phrases to project  $D^0$  (while leaving open the possibility of other structures projecting DP as well), thus building and possibly improving on Bartos (1999) and following work.

There are several aspects of both Hungarian object agreement and DOM that I have not addressed in this thesis, for various reasons. The following section provides an overview.

## 5.3 Open questions

### 5.3.1 Verb paradigms

I have focused on only a few aspects of the phenomena I discussed, leaving many questions unanswered that further research can pick up. First, regarding the triggers of the objective paradigm in Hungarian, I focused mostly on the question of quantifiers. While showing that the morphosyntactic behavior of *valamennyi* and *mindegyik* ‘each’ is as expected given their inherent definiteness, there are many more quantifier expressions that I have not discussed — the difference between *valamennyi* and *minden* might have been the most puzzling one.

Another trigger I have barely discussed are embedded clauses introduced by *hogy*. Given the focus of this thesis, an elaborate discussion of these phenomena would not have been possible in this space. I have criticized explanations by Bartos (1999) and Coppock and Wechsler (2011) without providing better solutions. One problem with regard to *hogy*-clauses is whether there really is a DP associated with the *hogy*-CP. Also, focus movement out of embedded clauses poses interesting problems. See den Dikken (2006) for an overview.

A further question is the exact contribution of the category DP to a noun phrase. Given that there are semantically indefinite structures that are claimed to project DP (cf. possessive structures), my generalization that semantically definite noun phrases project DP cannot be extended to a biconditional implication stating that everything that projects DP is automatically definite as well. Two arguments could ease the severity of this problem. First, as discussed in Section 2.3, possessive noun phrases obviously project more structure than non-possessive noun phrases to accommodate the possessor (whether overt or

## 5 Conclusions and open questions

not). Second, as Szabolcsi's (1994) examples (cf. the discussion of (78), p. 54) showed, there is a correlation between the presence of a possessor and the interpretation of the possessive phrase. Only possessive noun phrases with an external possessor can appear in definiteness effect contexts — and it is exactly these possessives that do not trigger the objective conjugation in some varieties of Hungarian. A possible interpretation is that the lack of structure explains the subjective conjugation. Further research will hopefully clarify this issue.

### 5.3.2 DOM

There are in principle two possibilities as to which conclusions can be reached from the above discussion. One is to keep “the” theory of DOM (simplifying a bit) as it is, concentrating on languages whose differential system can be explained with the three properties mentioned throughout the previous sections. A second one is to extend DOM to include the system presented by Hebrew and Hungarian. Open questions in this area include whether structural DOM is, as hinted at above, a “weakened” version of original, “functional” DOM. In Hungarian, the diachronic processes that lead to the present day system might suggest that this is the case — but to reach a generalization, further data are necessary.

It seems to me that the partial correlation between structure and interpretation cannot help decide whether, roughly, functional approaches to DOM or Mapping Hypothesis-type approaches fare better. Recall that the latter associate structural prominence with semantic prominence by arguing that the more prominent an element is, the higher its syntactic position. It is doubtful whether Hungarian DOM at present can provide evidence for either approach. A possible argument against the use of prominence scales to account for DOM phenomena might be that the type of DOM in Hebrew and Hungarian is not sensitive to a scale of semantic prominence (obviously, since we are dealing with structural phenomena). To account for Hebrew and Hungarian in a theory of DOM, new concepts might be necessary for a theory of DOM; a gap on a prominence scale, as shown by the lack of agreement with Hungarian first and second person pronouns, is unexpected and hard to explain in the framework described in Chapter 3.



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# A Abstract (German)

In dieser Arbeit habe ich versucht, zwei Themen, die bislang vor allem unabhängig voneinander bearbeitet wurden, zusammenzuführen und gemeinsam zu untersuchen. Es handelt sich dabei einerseits um das Phänomen der verschiedenen Verbparadigmen im Ungarischen und andererseits um Differentielle Objektmarkierung (DOM).

Im Ungarischen können transitive Verben mit Endungen aus zwei verschiedenen Paradigmen versehen werden. Welche Endungen verwendet werden, hängt von Eigenschaften des direkten Objekts ab. Die sogenannte subjektive Konjugation erscheint prototypisch mit artikellosen oder mit indefiniten Artikeln oder Quantoren versehenen direkten Objekten. Die objektive Konjugation wird von definiten Objekten, sowie Nominalphrasen, die für Besitz markiert sind, und von einigen Nebensätzen verlangt. Die Unterscheidung entspricht in groben Zügen dem Kontrast zwischen indefinit und definit, dieses semantische Merkmal allein kann die Verteilung der Paradigmen jedoch nicht vollständig erklären.

DOM ist ein weitverbreitetes Phänomen, das in einigen Sprachen für ähnliche Kontraste verantwortlich ist. In einer großen Zahl an nicht miteinander verwandten Sprachen ist entweder nur eine echte Teilmenge der direkten Objekte morphologisch als Objekt markiert oder eine echte Teilmenge der direkten Objekte trägt unterschiedliche morphologische Markierung. Eine gültige Generalisierung ist hierbei, dass die Charakteristika dieser Teilmengen immer darauf beruhen, dass es sich um 'prominente' Objekte handelt. Das heißt, dass es sich um Objekte handelt, die definit oder belebt sind oder eventuell ein Topik bezeichnen. Diese Eigenschaften tragen in der Regel eher Subjekte, deswegen sind Objekte, die diese untypischen Merkmale aufweisen, speziell markiert.

Die Verbindung dieser zwei Phänomene führt zur Frage ob die ungarischen Konjugationen mit ähnlichen Kriterien beschrieben werden können, wie DOM in anderen Sprachen. Da der Auslöser der objektiven Konjugation im Ungarischen als strukturelles und nicht semantisches Merkmal des direkten Objekts behandelt wird, stellt sich heraus, dass eine Analyse der Paradigmen im Rahmen von DOM nicht ohne weiteres zu bewerkstelligen ist. Ungarisch entspricht auch anderen für DOM gültigen Generalisierungen nicht — so verlangen beispielsweise die Pronomina der ersten und zweiten Person die subjektive Konjugation, was aus Sicht von DOM basierend auf Definitheit unerwartet ist.

Ich schlage vor, dass die für DOM untypischen Merkmale der ungarischen Konjugationen darauf beruhen, dass die Konjugationen im Laufe der Entwicklung der ungarischen

Sprache ihre ursprüngliche Funktion als Definitheits- oder Topikmarkierer verloren haben und redundant geworden sind. Dieser Ansatz wird mit einer ähnlichen These für das Hebräische in Zusammenhang gebracht, wo DOM auch auf strukturellen, nicht aber semantischen Eigenschaften des direkten Objekts beruht. So könnte erklärt werden, wie ein ursprünglich typisches DOM-System durch die Entwicklung verschiedener grammatikalischer Kategorien im Ungarischen (eine Topikposition sowie der definite Artikel) sich zu dem heutigen System entwickelt hat. Dieses System ist von einer funktionalistischen Perspektive aus schwer zu beschreiben, da es wie erwähnt redundant ist, und es nur grob mit semantischen Eigenschaften wie Definitheit korreliert. Zukünftige Forschung muss klären, ob und wie das Verhältnis von dieser Art von struktureller DOM mit DOM in anderen Sprachen in Beziehung steht.

## B Abstract (English)

In this thesis I tried to bring together and investigate two topics that were so far mostly discussed independently: Hungarian verb paradigms, on the one hand, and differential object marking (DOM) on the other.

Hungarian transitive verbs can have suffixes from two distinct paradigms. Which suffixes appear depends on certain properties of the direct object. The so called subjective conjugation usually appears with direct objects without articles or with indefinite determiners or quantifiers. The objective conjugation is triggered by definite objects, as well as noun phrases marked for possession and some types of embedded clauses. The distinction is roughly based on the contrast between indefinite and definite, but this semantic property alone cannot explain the distribution of the paradigms.

DOM is a widespread phenomenon that leads to similar contrasts in various languages. In a large number of unrelated languages, either only a proper subset of direct objects is morphologically marked as such or a proper subset of direct objects is marked differently than others. It is a valid cross-linguistic generalization that these subsets include *prominent* objects, i.e., these objects are definite, animate or topical. These properties are usually attributed to subjects, so objects that have these unusual characteristics are marked morphologically.

Combining these phenomena leads me to investigate whether Hungarian verb paradigms can be analyzed using similar criteria as DOM in other languages. Since the trigger of the objective conjugation in Hungarian is analyzed as a structural and not a semantic property of the direct object, analyzing the paradigms as DOM is not straightforward. Not all generalizations put forth regarding DOM hold in Hungarian — for example, first and second person pronouns require the subjective conjugation. This is unexpected from the point of view of DOM based on definiteness.

I suggest that the unusual characteristics of the Hungarian conjugations with respect to DOM are due to the fact that the paradigms lost their original use as definiteness or topic markers and became redundant. This approach is related to a similar analysis for DOM in Hebrew, which is also based on structural and not on semantic properties. This suggestion could explain how a typical system of DOM can lead to a system like that of present day Hungarian through the development of grammatical categories like a syntactic topic position and the definite article. Because of the redundancy mentioned

## B Abstract (English)

above and the fact that it only very roughly correlates with the semantic property of definiteness, this system is hard to explain functionally. Future research has to determine whether and how such a system of structural DOM is related to DOM in other languages.

## C Summary (Hungarian)

### C.1 Bevezetés

A szóban forgó szakdolgozat célja két hasonló nyelvi jelenség összehasonlítása: Egyrészt a magyar alanyi és tárgyas ragozás, másrészt pedig az úgynevezett differenciális tárgyjelölés (németül: *Differentielle Objektmarkierung*, ezentúl DOM).

#### C.1.1 A magyar igeragozás

A magyarban a tranzitív igéknek kétféle paradigmájuk van, melyeket az irodalomban hol alanyi vagy általános ragozásnak, hol tárgyas vagy határozott ragozásnak nevezik. E kifejezések arra utalnak, hogy az alanyi igealakokban a mondatbeli alany az ige fő argumentuma, míg a tárgyas igealakokban a tárgy (is) befolyásolja az igét. Az ige és az alany közötti kapcsolat máshogy nyilvánul meg mint az ige és tárgy közötti viszony.

Az ige ragjai személy- és számbeli egyeztetést mutatnak az alannyal, a tárggyal viszont nem. Csupán egy absztrakt morféma jelenik meg a tárgyas igealakok egy részében, mely a tárgynak egy releváns tulajdonságára utal. A 'határozott ragozás' kifejezés azt sugallja, hogy ez a releváns tulajdonság a tárgy (szemantikai) határozottsága. E szerint a hipotézis szerint a tárgyas ragozás akkor jelenik meg, ha az ige tárgya határozott, mások az alanyi ragozás áll. Ez az általánosítás azonban nem bizonyul helyesnek, mint ezt a (158) és (159) példák mutatják.

- (158) a. Látok egy kutyát.  
b. Látom a kutyát.  
c. \*Látok egy kutyádat.  
d. Látom egy kutyádat.
- (159) a. Látja őket.  
b. \*Látja téged/engem.  
c. Lát téged/engem.  
d. Látod őket.  
e. \*Látod engem.  
f. Látsz engem.

(158a,b) az alanyi és a tárgyas ragozásnak egy tipikus használatát mutatja be. A határozatlan tárgy (158a)-ban, *egy kutyát*, az alanyi ragozással áll, míg a határozott tárgy, *a kutyát*, a tárgyas ragozást váltja ki. Ezzel a példával kapcsolatban helytállónak tűnik az az általánosítás, mely szerint a tárgy határozottsága váltja ki a két ragozást. (158c) és (158d) viszont mutatják, hogy ez az általánosítás nem magyarázza, hogy a (határozatlan) tárgy, *egy kutyádat*, miért követeli a tárgyas ragozást: bár specifikus a tárgy, de nem határozott. Egyelőre azt tehetjük fel, hogy a birtokos szerkezetek (mint a tárgyak (158c,d)-ben) a tárgyas ragozással állnak.

A határozottsági általánosítás ellen az is szól, hogy (159b)-ben és (159e)-ben a tárgyak egyértelműen határozottak, mert személyes névmások. Feltűnő azonban, hogy csak az első és második személyű névmások igénylik az alanyi ragozást, míg a harmadik személyű névmás (vö. (159a,d)) a tárgyas ragozással áll. Azt következtethetjük, hogy a tárgy határozottsága nem a tárgyas ragozás megjelenésének a fő oka, hanem például birtokos szerkezetek is a tárgyas ragozást váltják ki, míg nyilvánvalóan határozott kifejezések mint az első és második személyű tárgyak mellett az ige alanyi ragozása.

### C.1.2 Differenciális tárgyjelölés (DOM)

A differenciális tárgyjelölés (DOM) azt a jelenséget nevezi meg, hogy egy nyelvben nem az összes tárgy egyformán van jelölve, hanem egyes tárgyaknak másféle morfológiai alakjuk van. Ez a jelenség sok nem rokon nyelvben ismert és általában hasonló tulajdonságok jellemzőek azokra a tárgyakra, melyek differenciálisan jelöltek egy nyelvben. E tárgyak tulajdonságai bár nem mind egyformák, de Aissen (2003) és mások szerint mindig a tárgy *prominenciájával* függenek össze. A *prominencia* kifejezés e nyelvészeti használatban Aissen (2003)-nál és másoknál a határozottság, aktivitás (angolul *animacy*) és a topikság hiperonimája. Annak, hogy egy nyelvben egy prominens tárgy differenciálisan jelölt, az lehet az oka, hogy e tárgy határozott, aktív (például embert denotál), topik, vagy e tulajdonságok kombinációja jellemző rá. A következő példák bemutatják ezt a jelenséget:

(160) Spanyol:

- a. Conozco \*(a) este actor.  
ismer.1SG DOM ez a színész  
'Ismerem ezt a színészt.'
- b. Conozco \*(a) esta película.  
ismer.1SG DOM ez a film  
'Ismerem ezt a filmet.'

(von Heusinger and Kaiser 2011: 12)

(160) azt mutatja, hogy a spanyolban nem (vagy nem főleg) a tárgy határozottsága miatt jelenik meg az *a*-morféma, hanem attól függően, hogy a tárgy egy élőlényt vagy egy nem élő tárgyat denotál-e. Mint látszik a magyar fordításban, ez a különbség ma-

gyarul nem befolyásolja az ige alakját. A prominens, élő tárgy a spanyolban követeli az *a*-megjelenését, míg a nem élő tárgy, (160b)-ben a *película* 'film', nem engedi, hogy megjelenjen ez a morféma. A török nyelvben a tárgynak e tulajdonsága irreleváns, vö. (161).

(161) Török:

- a. (Ben) bir kitap oku-du-m.  
én egy könyv olvas-MÚLT-1SG  
'Egy könyvet olvastam.'
- b. (Ben) bir kitab-ı oku-du-m.  
én egy könyv-ACC olvas-MÚLT-1SG  
'Egy bizonyos könyvet olvastam.' (von Heusinger and Kornfilt 2005: 5)

Többféle különbséget találunk (160) és (161) között. Egyrészt a differenciális jelölés nem egyforma: a spanyol példában egy névelő fejezi ki a differenciális jelölést, a török példában viszont egy esetrag. Másrészt feltűnő, hogy a (161)-beli különbséget a magyar fordításban inkább ki kell fejezni, mint a spanyol példában található különbséget. A spanyolban ugyanis egy a tárggyal velejáró tulajdonság felelős a differenciális jelölésért: egyértelmű és általában nem változó, hogy egy névszó egy tárgyat vagy egy embert (vagy más élőlényt) denotál. A törökben viszont másféle tulajdonságról van szó: a tárgy határozottsága (illetve a specifikussága) felelős az accusativusrag megjelenéséért.

A (161)-ban csak az accusativusrag különbözteti meg az (a) és (b) példákat. A törökben csak a nem-specifikus határozatlan tárgy áll accusativus nélkül, amint egy specifikus határozatlan tárgyról van szó (vö. *egy bizonyos könyv*), meg kell, hogy jelenjen az accusativusrag.

Egy tárgy prominenciáját (tehát a határozottságát vagy aktivitását) hierarchiában szokás megjelölni, vö. (162):

- (162) a. Definiteness Scale:  
Personal pronoun > Proper name > Definite NP > Indefinite specific NP >  
Non-specific NP  
(Aissen 2003: 437)
- b. 1st, 2nd person > Other human > Other animal > Inanimate  
(Comrie 1986: 94)

Azoknak a nyelveknek, melyekben létezik efféle differenciális tárgyjelölés, egy tulajdonságuk, hogy amint egy (162)-beli hierarchia egyik fokán megjelenik differenciális morfológia, a felsőbb fokain is kötelező, hogy megjelenjen (vö. Aissen 2003, Haspelmath 2008c). Más szóval: ha a törökben az accusativusrag a specifikus határozatlan névszón megjelenik (*indefinite specific NP* (162a)-ban), azzal számítunk, hogy határozott névszón, tulajdonneven és személyes névmáson is megjelenik. A DOM-nak e tulajdonsága olyan szabályos, hogy Haspelmath (2008c) a következő univerzálét fogalmazza meg:

- (163) If a language has overt case marking for an object on a position of one of these scales [vö. (163a,b)], it also has overt object case marking for all higher positions.  
(Haspelmath 2008c: 18)

## C.2 Magyar igeragozás és differenciális tárgyjelölés

A fenti példák bemutatták a magyar igeragozás és a differenciális tárgyjelölés hasonló lényegét. Bár (158) és (159) egyértelműen mutatják, hogy a magyar nyelv is másféleképpen jelöli a tárgyait, de e szakdolgozatban azzal a kérdéssel foglalkozom, hogy ugyanazokkal az ismérvekkel magyarázhatjuk-e el a magyar igeragozást és a differenciális tárgyjelölést más nyelvekben. Ha ezt a szempontot választjuk, számos különbséget találhatunk a két jelenség között:

**Morfológia** A spanyol és török példákban és más nyelvekben a differenciális jelölés a tárgyat jelöli, például esetraggal (török) vagy névelővel (spanyol). A magyarban viszont a tárgy általában a tárgyesetben áll és a differenciális jelölést az ige alakja fejezi ki.

Aissen (2003) szerint a differenciális jelölés morfológiai kifejezése *zéro:nem-zéro* alternáció szokott lenni. Ez látszik a spanyol és török példákban: vagy megjelenik a differenciális morféma, vagy nem. Keine and Müller (2008) bizonyítják, hogy létezik *nem-zéro:nem-zéro* alternáció is a differenciális jelölés kifejezésében és ezekre szerintük efféle alternációra is jellemző, hogy a pár jelölt eleme morfológiailag ikonikusabb (angolul *iconic*), vagy komplexebb.

Az alanyi és a tárgyas paradigmára mindkét típusú alternáció csak részben jellemző: létezik maximális kontraszt, vö. *lát : lát-ja*, viszont semleges kontrasztot is találunk, például *kerestél : kerested*, illetve szinkretizmust is, *várnánk : várnánk*.

**Mi a releváns tulajdonság?** A törökben és a spanyolban a tárgy határozottsága illetve az aktivitása felelős a differenciális jelölés megjelenéséért. Aissen (2003) további nyelveket idéz, például a Hindit, melyekben e tulajdonságok kombinációi is lehetnek jellemzőek a differenciális jelölésre.

A magyarban viszont, mint láttuk, nem egy csupán szemantikai vagy pragmatikai tulajdonság okozza a tárgyas ragozás megjelenését. Bartos (1999) szerint e nyelvben a tárgy szintaktikai szerkezete válthatja csak ki a tárgyas ragozást (lásd alább).

**Melyik hierarchia jellemző a magyarra?** Mivel sem a határozottság sem az aktivitás nem magyarázza el az alanyi és a tárgyas ragozás megoszlását, a (162)-ben bemutatott hierarchiák nem hasznosak a magyar adatok értelmezéséhez. Tulajdonnevek például mindig a tárgyas ragozással állnak, de mint láttuk az első és második személyű névmások nem. Másrészt ha a tárgy egy birtokos szerkezet, akkor is tárgyas ragozású az ige, viszont a specifikusság egyedül nem elegendő.



Ezek a tények azt bizonyítják, hogy a (163)-ban említett univerzálé a magyarra nem jellemző. Nyilvánvaló, hogy Haspelmath (2008c) esetragokat és nem igeragozást említ, de egyértelmű, hogy a jelölt tárgyak halmaza alapvetően különbözik a magyarban és a többi említett nyelvben.

**Redundáns a tárgyas ragozás** Aissen (2003) azt állítja, hogy a DOM egyik funkciója, hogy könnyebb a tárgy értelmezése a mondatban, hiszen főleg olyan tárgyak jelöltek, melyek határozottak, embert denotálnak, stb. — ezek viszont általában az alany tulajdonságai. A spanyolban az *a*-morféma néha pontosan ilyenféle potenciális redundancia elkerülésére szolgál (de Swart 2007: 130). A fenti török példában csak a tárgyrag jelöli a jelentésbeli különbséget, tehát nem redundáns.

A magyarban a tárgyas és az alanyi ragozásnak alig van ilyen funkciója, hiszen a tárgyat szinte mindig jelöli az accusativusrag. Ezenkívül az alanyi és a tárgyas ragozás által jelölt karakterisztikum általában más morfoszintaktikai módon is kifejeződik, például a határozott névelővel.<sup>1</sup>

## C.3 Elemzés

A fenti adatok elemzése két részből áll. Az első kérdés, hogy mi az a tulajdonság, amely követeli a tárgyas ragozás megjelenését. A második kérdés, hogy el tudjuk-e magyarázni, hogy miért különbözik a differenciális jelölés a magyarban a többi nyelv szabályosabb DOM rendszerétől.

E szakdolgozatban az első kérdés megoldására Bartos (1999) analízisét követem, mely szerint a tárgyas igealak akkor jelenik meg, ha a tárgy strukturális szerkezete DP-t projektál (lásd a második fejezetet). A DP projekciót pedig határozott névszók, birtokos szerkezetek, *hogy*-kötszós mellékmondatok és határozott névelők projektálják. Bartos (1999) amellet érvel, hogy csak harmadik személyű névmások DP-k, ezért első és második személyű névmások az alanyi ragozással állnak. A szakdolgozatban én Coppock and Wechsler (2010a) javaslatát tartom többre, mely szerint nyelvtörténeti okok miatt korlátozott a harmadik személyre a tárgyas ragozás (lásd a 4.5 fejezetet).

Ez az elemzés még nem ad választ a második kérdésre: miért különbözik ez a differenciális rendszer másoktól? Egy lehetséges magyarázatot Danon (2006) javasol. Szerinte a héber DOM rendszer sem szemantikai határozottságon alapul, hanem a tárgy strukturális tulajdonságai, ismét a DP szerkezet jelenléte, befolyásolják a *et*-névelő megjelenését. Továbbá azt állítja Danon (2006: 1005), hogy efféle strukturális vagy szin-

<sup>1</sup>A tárgyas ragozás csak akkor nem redundáns, ha nincs kiejtve a tárgy, pl. egy olyan mondatban mint: *Látja*. Ez viszont ismét csak harmadik személyű tárgyakra jellemző és másféle redundancia elkerülése mint a fent említett alany és tárgy közötti különbség jelölése. Első személyű alany és második személyű tárgy esetén létezik egy külön igerag, lásd a 1.4.3 fejezetet.

taktikai DOM eredetileg szemantikai vagy pragmatikai tulajdonságokon alapuló DOM nyelvtörténeti fejlődése lehet.

A magyar nyelv története ezt a jóslást támogatja. Marcantonio (1985) és mások szerint (lásd a 4.4 fejezetet) az ómagyar korban az accusativusrag nem az összes tárgyat jelölte, hanem vagy határozott, vagy (Marcantonio szerint) topikalizált tárgyat. Ekkor még nem létezett tárgyas és alanyi ragozás. Miután elterjedt a tárgyrag általános használata, a tárgyas ragozás átvette a tárgyrag eredeti funkcióját és a tárgy határozottságát vagy topik-ságát jelölte. Ez a rendszer egy szabályos DOM rendszer lehetett, melyben a differenciális jelölést a kétféle igealak mutatta.

További nyelvtörténeti fejlődések folyamán viszont az igeragozás ezen funkciója redundáns lett, mert kialakult egy állandó topik pozíció a magyar mondszerkezetben (vö. É. Kiss 2002) és a határozott névelő. Ezek után a tárgyas ragozás kiváltója már nem szemantikai vagy pragmatikai tulajdonság volt, hanem, ha Bartos (1999) elemzését akceptáljuk, a tárgy DP-szerkezetével egyezik a tárgyas igealak.

Az ezen szakdolgozatban bemutatott analízis egyrészt Bartos (1999) hipotézisét támogatja, mely szerint a tárgy DP szerkezete jellemző a tárgyas ragozás megjelenésére, másrészt a Danon (2006) által javasolt történeti fejlődést a Marcantonio (1985) által idézett történeti adatokkal tudja esetleg erősíteni. A DOM és a mai magyar igeragozás közötti homályos kapcsolat tehát nyelvtörténeti folyamatok révén magyarázható.

# D Curriculum Vitae

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## Akademische Tätigkeit

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