

Hungarian conjugations and differential object marking*

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In this paper, I try to combine two areas of research: the distinct verb paradigms in Hungarian and differential object marking (DOM). The motivation for this combination is that, on the surface, both phenomena share striking similarities. I argue, however, that typical criteria of DOM (cf. Aissen 2003) cannot explain the distribution of the Hungarian conjugations. In this language, the “marked” conjugation is argued to have a structural and not a semantic trigger, which could be due to diachronic developments that made the Hungarian conjugations redundant to some extent.

Keywords: *differential object marking, Hungarian, object agreement*

1 Introduction

This paper is about the relation between Hungarian conjugations and the phenomenon known as differential object marking. Hungarian has two verb paradigms that appear depending on a certain property of the object, which is traditionally identified as definiteness, see (1).

- (1) a. Péter lát-Ø egy kutyá-t.
P. see-3SG a dog-ACC
'Peter sees a dog.'
- b. Péter lát-ja-Ø a kutyá-t.
P. see-OBJ-3SG the dog-ACC
'Peter sees the dog.'

The two paradigms have been called *határozatlan ragozás* and *határozott ragozás* for 'indefinite conjugation' and 'definite conjugation', respectively, or *alanyi* and *tárgyas ragozás*, 'subjective' and 'objective conjugation'. I will use these latter terms. (1a) is an example of the 'subjective' conjugation, i.e., there is no morphological element that refers to the object. In (1b), on the other hand, the morpheme *-ja-* can be analyzed as an instance of object agreement. It does not, however, agree with the object in number or person. I will not pursue the question whether this is really object agreement in definiteness. The point of this paper is rather to try and sketch the similarities between the phenomenon in (1) and differential object marking (henceforth DOM). Languages with DOM do not mark all direct objects the same way. In such languages, objects that have certain properties (e.g., they are definite) tend to be marked differently than those

* I want to thank Peter Hallman, Thomas Borer and two anonymous reviewers for valuable feedback regarding several aspects of this paper. I use the following abbreviations in the glosses. 3SG: person/number, ACC: accusative, COND: conditional, DAT: dative, DU: dual, ILL: illative, INSTR: instrumental, OBJ: objective, PL: plural, PRF: (verbal) prefix, PX: possessive suffix, SG: singular, SBJV: subjunctive, SUBJ: subjective, T: tense.

objects that lack these. I discuss whether approaches proposed to analyze DOM can explain the distribution of the Hungarian phenomenon in (1).

The structure of this paper is as follows. In the next section, I introduce the triggers of the Hungarian objective conjugation and review recent analyses that have sought to explain this phenomenon. In section 3, I give an overview of the properties of DOM and mention languages that show this phenomenon. In section 4, I will point out how DOM might serve as an explanation for Hungarian verb paradigms and what problems this analysis runs into.

2 Hungarian verb paradigms

Hungarian has three verb paradigms, two of which are relevant for the present discussion. These are the subjective conjugation and the objective conjugation.

Table 1 shows the subjective and objective forms of the verb *lát* ‘see’ in the present tense. Most forms have been segmented into two morphemes, but the third singular objective form and the objective plural forms are shown to consist of three elements, the stem *lát-*, the respective subject agreement suffix and an element *-j(a)-*. This morpheme is analyzed as a definiteness marker of the object in Bartos (1999), Rebrus (2000), É. Kiss (2002). For Kiefer (2003), this element is part of the suffix. Whether a two-part or a three-part structure is more adequate is still a matter of discussion: the marker *-j(a)-* is clearly visible in the present tense, other tenses and moods form their objective forms with several allomorphs. Because of this, Rebrus (2000) argues that the position definiteness marker *-j(a)-* in the indicative present tense is filled by tense/mood markers in other tenses and moods (for details see Rebrus 2000, 935f.). Still, objective forms include an extra morpheme that can be analyzed as an allomorph of *-j(a)-* (see the discussion in section 4 below).

<i>lát</i> ‘see’	subjective	objective
Singular	<i>lát-ók</i>	<i>lát-om</i>
	<i>lát-sz</i>	<i>lát-od</i>
	<i>lát-Ø</i>	<i>lát-ja-Ø</i>
Plural	<i>lát-unk</i>	<i>lát-j-uk</i>
	<i>lát-tok</i>	<i>lát-já-tok</i>
	<i>lát-nak</i>	<i>lát-já-k</i>

Table 1: Subjective and objective paradigms

2.1 Triggers

Each paradigm co-occurs with certain types of direct objects that have a certain property. The exact nature of this property is debated in the literature. I will briefly mention two recent proposals, first, the so called DP hypothesis, put forth by Bartos (1997, 1999, 2001) and taken up by É. Kiss (2002, 2003a) and second, a morphological analysis proposed by Coppock and Wechsler (2010).

The main claim of Bartos approach is that the objective conjugation is triggered by a structural property of the direct object noun phrase, to wit, its phrasal category of DP. He argues that all DP direct objects and only these co-occur with the objective paradigm. Coppock and Wechsler (2010) claim, on the other hand, that it is rather a morphological feature [DEF] on certain morphemes that triggers the objective paradigm and that the objective suffixes require that this feature be present on their direct object noun phrases. I will discuss these approaches in more detail below, after listing the types of noun phrases co-occurring with each paradigm.

2.1.1 The subjective conjugation

I will not discuss in detail the question whether the subjective conjugation is triggered by the properties of the direct object, or whether it is simply a default form. An argument for the latter view is that intransitive verbs always have the subjective form, i.e., there is no object that could trigger anything.

Intransitive verbs Intransitive verbs have subjective suffixes, as in (2a), as do transitive verbs when used intransitively (but not for transitives with dropped objects), see (2b).

- (2) a. *El-megy-ek.*
away-go-1SG.SUBJ
'I'm going away.'
- b. *Lát-ok.*
see-1SG.SUBJ
'I see.' (i.e., *I can see, I am not blind*, etc.)

Bare noun phrases, indefinite articles, numerals These elements, all indefinite, occur with the subjective conjugation.

- (3) a. *Virág-ot vesz-Ø.*
Flower-ACC buy-3SG
'S/he is buying flowers.'
- b. *Egy / három / öt könyv-et keres-ek.*
one / three / five book-ACC search-1SG.SUBJ
'I am searching a/three/five book(s).'

Quantifiers Certain quantifiers, mostly those referred to as 'weak' require the subjective conjugation. These include *néhány* 'some', *kevés* 'a few', *valamennyi*¹ 'some' and, interestingly, the universal quantifier *minden* 'every', which is arguably a strong quantifier.

- (4) a. *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)

¹ *Valamennyi* also has a different reading, meaning 'each', which triggers the objective conjugation.

- b. *Néhány / kevés / minden film-et lát-ott.*
 some / few / every movie-ACC see-3SG.SUBJ.PAST
 ‘I saw some/a few/every movie(s).’

Indefinite pronouns ending -ki, -mi Indefinite pronouns like *valaki* ‘someone’ *valami* ‘something’ require the subjective conjugation as well.

First and second person pronouns Finally, first and second person pronouns occur with the subjective conjugation, though there is one exception. If the subject is in the first person and the object is in the second person, a special morpheme *-lak* appears.

- (5) *Péter keres-ett téged.*
 P. search-3SG.SUBJ.PAST you.ACC
 ‘Peter was searching for you.’

2.1.2 The objective conjugation

The objective conjugation is mostly triggered by elements that are usually said to be definite. This is not the case for all triggers, however.

Proper names, third person pronouns

- (6) *Lát-om Péter-t / ő-t.*
 see-1SG.OBJ P.-ACC / her/him-ACC
 ‘I see Peter/her/him.’

Definite article, demonstratives, strong quantifiers These typically definite elements always trigger the objective conjugation.

- (7) a. *Szeret-em ezt az étterm-et.*
 love-1SG.OBJ this-ACC the restaurant-ACC
 ‘I love this restaurant.’
 b. *Nem talál-t-a-Ø a moz-i-t.*
 not find-PAST-OBJ-3SG the cinema-ACC
 ‘S/he didn't find the cinema.’

Complement clauses with *hogy* Embedded clauses introduced by *hogy* ‘that’ trigger the objective conjugation when they are arguments of the verb. Such clauses are associated with an optionally silent pronoun.

- (8) *(Az) javasol-t-a, hogy menj-ünk Ameriká-ba.*
 that suggest-PAST-3SG.OBJ that go-SBJV-1PL.SUBJ America-ILL
 ‘S/he suggested that we should go to America.’

Null objects Dropped objects, opposed to no object at all, co-occur with the objective conjugation.

- (9) *Lát-ja-Ø.*
 see-OBJ-3SG
 ‘S/he sees it.’

Possessive constructions Direct objects that are possessive noun phrases trigger the objective conjugation, regardless of their exact content.

Table 2 summarizes the triggers of each conjugation. Comparing the two columns shows that a simple generalization based on definiteness cannot be easily made. While most elements co-occurring with the subjective conjugation are indefinites, first and second person pronouns and the universal quantifier *minden* ‘every’ are not clearly indefinite. Also, while most elements triggering the objective conjugation are definites, possessive noun phrases can be indefinite.

An account that tries to explain what property of the direct object triggers the objective conjugation has to account for this distribution of noun phrase types. The following section introduces two recent analyses of these facts.

Subjective paradigm	Objective paradigm
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 quantifiers (<i>minden, néhány, ...</i>)	possessive noun phrases
first and second person singular pronouns	third person pronouns
<i>ki</i> ‘who’, <i>mi</i> ‘what’	reflexive and reciprocal pronouns
	<i>hogy</i> -complement clauses
	null (elided) objects

Table 2: Types of noun phrases and their associated paradigms

2.2 The DP hypothesis

This analysis was proposed by Bartos (1997) and expanded in Bartos (1999). The crucial claim is that only DPs trigger the objective conjugation. This means that the main difference between noun phrases that do and those that do not trigger the objective paradigm is structural. Bartos uses a version of the so called Minimalist Program (cf. Chomsky 1995), a generative syntactic framework and builds on earlier assumptions on noun phrase structure (cf. Bartos 1999 for references).

An important aspect of his proposal is that there is extensive functional structure in the noun phrase, above the lexical category NP. Bartos provides evidence that different types of noun phrases (e.g., bare nouns, noun phrases with numerals etc., possessive noun phrases) project different functional projections. This follows from Bartos' (1999) framework which claims that grammatical morphemes following a stem are also represented syntactically as functional projections. Morphological structure is built up by morphological and syntactic processes. Thus the form (10a) has the structure in (10b) (the possessor is not shown in the structure).

- (10) a. *szép nap-ja-Ø*
 beautiful day-PX-3SG
 ‘her/his beautiful day’
 b. [_{POSSP} [_{POSS} {JA}]] [_{NP} szép nap]

(cf. Bartos 1999, 29)

{JA} in (10b) represents the possessive suffix *-ja-*. The form *szép napja* is formed by a process called morphological merger (cf. Bartos 1999, 14, Halle and Marantz 1993, 116). The more grammatical elements a word form has, the more functional structure is projected above NP. Note that this view of the noun phrase is not quite compatible with Szabolcsi’s (1994) analysis of the Hungarian noun phrase who assumes that the noun phrase always projects a DP.

É. Kiss (2002) sides with Bartos, stating that “NPs denote properties, NumPs denote individuals identified by a property, whereas DPs denote individuals identified (more or less) uniquely.” (É. Kiss 2002, 155). This establishes a reasonable relation between structure and interpretation. The gist of Bartos’s proposal should be clear: objects that trigger the objective conjugation project a DP.

2.2.1 Complement clauses

I will briefly review two cases that are interesting with respect to the DP hypothesis. The first of these involves embedded clauses with the complementizer *bogy* ‘that’. In Kenesei (1994), these are analyzed as CHAINS that consist of a CP and an associated expletive pronoun (DP) that can be spelled out in the matrix clause optionally, cf. (8) above.

In such cases, the verb in the matrix clause has objective morphology. Movement out of the embedded clause complicates things, however. Kenesei (1994, 318) notes that his theory has “no natural suggestion to offer for the properties of conjugation in case oblique arguments or adjuncts are moved”. In these cases, the complement clause triggers the objective conjugation, even though the moved constituent might not be the trigger, see (11).

- (11) a. [_F *Két ember-rel*] *széret-n-ém* [_{bogy} *Péter találkozá-on*.
 two men-INSTR like-COND-1SG.OBJ that P. meet-3SG.SUBJ
 ‘It’s two men that I’d like Peter to meet (with).’
 b. *_F [_F *Két ember-rel*] *széret-n-ék* [_{bogy} *Péter találkozá-on*.
 two men-INSTR like-COND-1SG.SUBJ that P. meet-3SG.SUBJ
 ‘It’s two men that I’d like Peter to meet (with).’

(Kenesei 1994, 318)

(11b) shows that the subjective conjugation (*széretnék*) is ungrammatical in this case. This is interesting, since the raised object *két emberrel* is neither accusative (as direct objects triggering the objective conjugations are), nor a type of noun phrase that would require the objective paradigm. Sometimes, however, the matrix verb *does* show subjective morphology. Bartos (1999) cites the following synonymous cases.

- (12) a. *Ki-t_x szeret-n-él [bogy meg-ver-j-ek t_x]?
 who-ACC like-would-2SG.SUBJ that PRF-beat up-SBJV-1SG.SUBJ
 ‘Whom would you like me to beat up?’*
- b. *Ki-t szeret-n-él [bogy meg-ver-j-em]?
 like-COND-2SG.SUBJ PRF-beat up-SBJV-1SG.OBJ*
- c. *Ki-t szeret-n-éd [bogy meg-ver-j-ek]?
 like-COND-2SG.OBJ PRF-beat up-SBJV-1SG.SUBJ*
- d. **Ki-t szeret-n-éd [bogy meg-ver-j-em]?
 like-COND-2SG.OBJ PRF-beat up-SBJV-1SG.OBJ*
- (Bartos 1999, 110)

(12a-d) show several combinations of subjective and objective morphology in the matrix clause and the embedded clause. Bartos suggests the following treatment of these cases. In (12a), *kit* moves from its base generation position in the embedded clause (marked *t*) to SpecCP in the matrix clause. Both matrix and embedded predicates have subjective forms. In (12b), he argues, *kit* does not move from the embedded clause and *megverjem* agrees with *pro*, i.e., a dropped object. *kit* is then generated in the matrix clause. In (12c), the matrix verb *szeretnéd* has an objective suffix because it agrees with a silent expletive DP, while *kit* moves from the embedded clause as in (12a), which makes the embedded verb have subjective morphology. Finally, Bartos (1999, 110) argues that (12d) is ungrammatical because “*kit*’s potential base-generation positions are filled both in the matrix clause and in the embedded clause (with the expletive *azt* and *pro*, respectively).”

This argument is based on the idea that different elements constitute the head of the CHAIN that associates an element in the matrix clause with the embedded clause. Bartos (1999, 110) states that in (12a), *kit* is the head of the CHAIN and therefore the verb does not have objective morphology. Similarly, in (12b), *kit* heads the CHAIN, but it has not moved from the embedded clause (see the paragraph below); in (12c), the CHAIN is headed by the silent expletive, which, being a DP, triggers the objective conjugation.

Generating *kit* in the matrix clause might be problematic for the following reason. That the embedded verb in (12b) has to agree with *pro* is a reasonable assumption, since its objective suffix has to have a trigger. The assumption that *kit* is generated in the position of the expletive in the matrix clause is not necessarily unreasonable either, since there are cases where an expletive interrogative appears in the matrix clause, cf. (13), but this expletive has a different form, viz. *mi-t* ‘what-ACC’.

- (13) *Mi-t gondol-sz [bogy ki-t látog-as-s-unk meg]
 what-ACC think-2SG.SUBJ that who-ACC visit-SBJV-1PL.SUBJ PRF
 ‘Who do you think we should visit?’*

Using *mit* ‘what-ACC’ is an alternative to spelling out *kit* ‘whom’ in the matrix clause. Kenesei (1999, 316) suggests that *mit* is the “interrogative version of the expletive *azt* ‘it’.” This assumption predicts that *mit* triggers the subjective conjugation in the matrix clause as the head of the CHAIN associated with CP.

If I understand it correctly, Bartos’s proposal regarding (12b) amounts to the same thing. A potential problem for this proposal is that the interrogative expletive is always *mit* and using *mit* is not possible in (12b) with the same interpretation. This suggests that the nature of the interrogative in the matrix clause is different from that of *mit* in (13) and that the interpretation of *kit* in (12b) is linked more tightly to the embedded verb

than in (13). I conclude the discussion of the DP hypothesis and *bogy*-clauses by stating these possible problems without being able to offer a better explanation.

2.2.2 Possessive noun phrases

Possessive noun phrases pose an interesting puzzle for the DP hypothesis. There is evidence that several functional projections are necessary to house all elements in a possessive noun phrase, see the following examples.

- (14) a. *Mari két barát-ja-Ø*
 M. two friend-PX-3SG
 ‘Mary’s two friends’
 b. *Mari-nak a két barát-ja-Ø*
 M.-DAT the two friend-PX-3SG
 ‘Mary’s two friends’

The difference between (14a,b) lies in the case of the possessor, nominative in (14a), dative in (14b). The latter option allows the presence of the definite article *a(z)*, which is presumably in D⁰. In (14a), *Mari* is said to either move to D⁰ (Bartos 1999) or to SpecDP (É. Kiss 2002; for datives, she assumes another DP layer). Possessive noun phrases thus project DPs and, as mentioned above, they trigger the objective paradigm.

Some varieties of Hungarian, however, show an interesting contrast with possessive noun phrases that is not available in the standard language.

- (15) 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.’
 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)

Varieties that allow (15b) are exceptional in that they have possessive noun phrase direct objects that co-occur with the subjective conjugation. Also, these objects are interpreted as non-specific. Bartos (1999) provides a good explanation. These possessive structures do not project a DP.

While this might seem *ad hoc*, there is evidence that non-specific noun phrases have a different category than specific ones. The possessors of non-specific noun phrases do not form a constituent with the possessum, i.e., they have to be extracted (cf. Szabolcsi 1994, 225f. for detailed discussion). For Bartos (1999, 109), this means that the possessor left the structure before a DP was projected.

This leads to an interesting situation in standard Hungarian, where structures like (15b) are not available as readily. If the DP hypothesis holds, then possessive constructions should not allow a non-specific interpretation in standard Hungarian, since, as suggested above, we expect syntactic structure to correlate with interpretation. If there are non-specifically interpreted direct object possessives, there is a mismatch between structure and interpretation. Szabolcsi (1994, 226, (123)) argues that there are non-specific possessives in the majority dialect, writing: “In [(16)] the possessor is

extracted and the non-specific interpretation is available.” (Szabolcsi 1994, 226).²

- (16) *Chomsky-nak nem olvas-t-ad vers-é-t.*
 Ch.-DAT not read-PAST-2SG.OBJ poem-3SG.PX-ACC
 ‘You haven’t read any poem of Chomsky’s.’

(Szabolcsi 1994, 226)

I conclude that not all cases of complement clauses are straightforwardly explained by the DP hypothesis and that the behavior of possessive noun phrases is actually more ‘regular’ in some dialects than others. I will compare these results to those reached by Coppock and Wechsler (2010) in the next section.

2.2.3 *The morphological analysis*

This recent proposal by Coppock and Wechsler (2010) claims that the trigger of the objective conjugation is not syntactic or semantic, but that certain elements have a morphological feature [DEF] that is required by the objective suffixes. In their words: “Whether 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 2010, 31).

Consequently, all elements that trigger the objective conjugation are said to have this feature while those that co-occur only with the subjective conjugation lack it. It is not clear what “depends entirely on its morphological form” means, other than that there is a list of forms that are specified for the feature [DEF]. Coppock and Wechsler’s (2010) approach to the complementizer *bogy* and possessive constructions is that they attribute the feature to these morphemes, i.e., *bogy* is one of the elements specified for it, as are the possessive suffixes that are affixed to nouns. Some of the examples with *bogy* mentioned above might be problematic for this approach. Assuming [DEF] for *bogy* can explain the cases where the matrix verb shows objective morphology, but sentences like (12b) pose problems, since it is not clear what happens to the feature [DEF] when the matrix verb bears subjective morphology.

Regarding possessive suffixes, the morphological approach works insofar as possessed noun phrases trigger the objective conjugation in the majority dialect, as mentioned above. But possessive noun phrases on their own are not necessarily definite. Evidence comes from definiteness effect-contexts. Since possessives structures with extracted possessors can appear in such contexts, they do not have to be definite. See the following examples (cf. also the discussion above).

- (17) a. *Van egy /néhány/sok /*a /*minden könyv.*
 is one /some /many/*a/*every book
 ‘There’s a/some/many/*the/*every book(s).’

² A reviewer suggests that my interpretation of Szabolcsi’s argument is wrong. A non-specific interpretation of a noun with a possessive suffix is only possible if the possessor has been extracted. This can be seen by applying definiteness effect tests; noun phrases with possessive suffixes only pass such tests if their possessor has been extracted. The reviewer argues that “[t]his proves that it cannot be the case that there are non-specific possessives in the majority dialect.” However, the noun whose possessor has been extracted is still marked for possession and the extracted noun phrase is interpreted as its possessor.

- b. *Van egy barát-om.*
 is one friend-1SG.PX
 ‘I have a friend.’
- c. **Van a barát-om.*
 is the friend-1SG.PX
 *‘I have the friend.’

(17a) illustrates a definiteness effect in Hungarian that is quite similar to the English existential *there*-construction. ‘Strong’ determiners are excluded, the remaining determiners and quantifiers are usually said to be non-specific (cf. Szabolcsi 1994, 227). (17b) is how Hungarian expresses possession. In these structures, as in their English counterparts, definites are excluded.

This shows that the presence of the possessive marker alone does not necessarily influence the definiteness of the entire phrase. Now, it is possible that definiteness effect-verbs in Hungarian do not see the feature [DEF], i.e., it might be present in (17b), but it is not the cause of the unacceptability of (17c). What is this feature then? Another objection against this view is based on the dialectal data reviewed above. If only morphological form influences the presence or absence of [DEF], how can the difference in (15) be explained? What remains constant in the variation in the dialectal data is the presence of the possessive morpheme, but both verb morphology and interpretation change. If one is forced to say that the possessive structure lacks [DEF] in the non-specific cases, the explanation that morphological form alone predicts the presence of the feature is lost. Otherwise, one could argue that certain contexts can block the triggering of the objective conjugation by [DEF]. But then, again, structural or semantic properties must trigger the objective paradigm.

Coppock and Wechsler (2010) provide arguments against the treatment of the universal quantifier *minden* ‘every’ in the DP hypothesis. It poses an interesting case, since with definiteness effect-verbs, *minden* patterns with definite determiners and not with possessives (cf. (17a)), but it always triggers the subjective conjugation, while possessives always trigger the objective conjugation.

minden also behaves quite like quantifiers that trigger the objective paradigm with respect to co-occurrence restrictions with the definite article. Crucially, the definite article and quantifiers like *minden* and *valamennyi* ‘each’ cannot appear next to each other, but there must be some intervening material (cf. Szabolcsi 1994, 209ff. for details).

- (18) a. **a minden állítás-om*
 the every claim-1SG.PX
 intendend: ‘every claim of mine’
 (Szabolcsi 1994, 200)
- b. *a_z én minden állítás-om*
 the I every claim-1SG.PX
 ‘my every claim’
 (Szabolcsi 1994, 201)
- c. *a három állítás-om*
 the three claim-1SG.PX
 ‘my three claims’

Not all determiners are prohibited to appear with the definite article, as shown by (18c). However, in (18c), the presence or absence of the definite article causes a change

in interpretation, while *minden állításom* ‘my every claim’ is interpreted exactly like (18b). Coppock and Wechsler (2010, 21) argue that “*minden* selects $a(z)$ ”; similarly, Szabolcsi (1994, 210f.) derives *minden fiú* from *a minden fiú* by deleting the definite article. This is obviously a problem for the DP hypothesis, since other quantifiers that exhibit the same behavior trigger the objective paradigm; *minden* is exceptional in this regard. Coppock and Wechsler (2010, 21) simply propose that *minden* lacks [DEF] to solve this problem. Another approach to solve this problem might be based on differences in definiteness between the quantifiers *valamennyi* ‘each’ and *minden* ‘every’, as argued for by Beghelli & Stowell (1997).

2.3 Conclusions

I have reviewed two recent approaches that try to explain what triggers the objective conjugation in Hungarian. The DP hypothesis is based on the claim that the relevant property of the object is of a structural nature: the presence of a DP layer in syntax is said to be crucial. The morphological analysis, on the other hand, states that a morphological feature [DEF] is present on exactly those types of objects that trigger the objective conjugation and is required by the objective verb suffixes.

I have argued that both approaches fail to account for the whole range of facts. The DP hypothesis has an advantage over the morphological analysis in the analysis of possessive structures, since interpretation and structure can be shown to influence the triggering of the objective conjugation in some dialects. This is hard to explain if we assume that possessive suffixes bear [DEF] in any case. However, Coppock and Wechsler’s (2010) objections regarding the quantifier *minden* ‘every’ might be valid. Its lack of a DP layer is mysterious, given its similarities to other quantifiers in the noun phrase (cf. also Szabolcsi 1994, 222f.). However, the lack of a [DEF] feature on *minden* seems equally stipulative, given the behavior of the quantifier.

To conclude, the exact property of direct objects that triggers the objective conjugation has so far not been identified beyond doubt.

3 Differential object marking (DOM)

3.1 Properties of DOM

Differential object marking is a term for a phenomenon that has been observed in many different unrelated languages. The origin of the name lies in the fact that some languages do not mark all direct objects in the exact same way, i.e., in a given language, some, but not all direct objects, might have a case suffix when they are direct objects.

Which objects are marked and which are not is not random: there are well established criteria that describe the parameters of how DOM works across languages. Aissen (2003), in an extensive study of this phenomenon, provides the following informal generalization of DOM:

- (19) The higher in prominence a direct object, the more likely it is to be overtly case-marked.

(Aissen 2003, 436)

Prominence is a crucial aspect of this generalization. DOM can be analyzed relative to different kinds of prominence: Aissen (2003, 436) mentions definiteness, animacy, and topicality. Different levels of prominence can be represented on scales, or hierarchies, like the following:

- (20) a. Animacy scale: Human > Animate > Inanimate
b. Definiteness scale: Personal pronoun > Proper name > Definite NP > Indefinite specific NP > non-specific NP
- (Aissen 2003, 437)

These scales influence DOM insofar as there are no languages that mark random points on a scale. If a language case-marks definite NP direct objects (cf. (20b)), it will also mark those types of direct objects that are above it on the definiteness scale, while it will not necessarily have to mark those below it (cf. Aissen 2003, 437). Haspelmath (2008) states the following universal relating to these scales (using a three-part definiteness scale: definite, specific indefinite and non-specific indefinite) and DOM:

- (21) If a language has overt case marking for an object on a position on one of these scales, it also has overt object case marking on all higher positions.
- (Haspelmath 2008, 18)

Even though this is a very strong prediction, it seems to be borne out in all languages that Aissen (2003) discusses. These include Catalan, Persian, Hebrew (but cf. Danon 2006), Turkish and several lesser known languages (cf. Aissen 2003, 450, Figure 2). One explanation for why DOM exists is related to typical properties of subjects and objects. Subjects are typically topical, animate and definite, while objects often convey new information, and denote inanimates and indefinites. The function of DOM is then to distinguish exactly those objects that have subject-like properties from subjects. This can be achieved through morphological marking (cf. Aissen 2003, 437f. for discussion and references and Haspelmath 2008, 20).

As for the nature of the marking, Aissen (2003, 446) claims that “[o]verwhelmingly, DOM is implemented by overtly marking the marked class of objects, and leaving the unmarked ones with no morphological mark.” This means that in languages with DOM, there is a contrast of zero vs. non-zero morphological expression between the unmarked and the marked elements. Finally, the exact shape of DOM in a language varies in at least two ways: (a) What is the property that DOM is sensitive to? (b) How is DOM expressed morphologically?

In some languages, a single property triggers DOM, e.g., in Hebrew. The relevant property seems to be the definiteness of the object, which is marked by “the prepositional element *et*” (Danon 2006, 979). Only definite objects are marked like this. In Turkish, DOM is also triggered by definiteness, but the marking does also include some (specific) indefinites, as shown by Enç (1991). Here, the presence or absence of accusative case on indefinite direct objects leads to a change in interpretation and only case marked indefinite objects are understood as specific. A combination of properties is also possible. In Hindi, for example, DOM is sensitive to both definiteness and animacy (cf. Aissen 2003, 465, de Swart 2007).

As for question (b), the languages analyzed by Aissen (2003) all mark the direct object noun phrase differentially. However, it seems that this is not the only possibility of

expressing DOM. Aissen (2003, 474) writes that there are languages that exhibit differential object agreement, i.e., DOM expressed in verb morphology. Givón (1976, 159) cites the Bantu languages Swahili and Rwanda as having developed object agreement in definiteness:

- (22) a. *Ni-li-soma kitabu.* (Swahili)
 1SG-PAST-read book
 ‘I read a book.’
 b. *Ni-li-ki-soma kitabu.*
 1SG-PAST-OBJ-read book
 ‘I read the book.’

(cf. Givón 1976, 159, example cited in Lyons 1999, 210)

In (22a, b) the form of the object is the same, the change in interpretation is due to the element *-ki-* on the verb.

3.2 Formal implementation

Aissen’s (2003) account of DOM is based on Optimality Theory (OT) constraints that restrict objects from being high on certain prominence scales (e.g., definite objects, e.g. *OJ/DEF) on the one hand, and also restrict them from not having (abstract) Case (her * \emptyset_C , cf. Aissen 2003, 447). The object constraints (e.g., *OJ/DEF, *OJ/SPEC, etc.) are combined with * \emptyset_C by a process called *local conjunction* (cf. Aissen 2003, 448). The combination of these constraints, Aissen (ibid.) notes, would provide all objects with case morphology, so she introduces a further (economy) constraint that “penalizes the specification of morphological CASE.” (her *STRUC_C, ibid.). Different DOM systems in different languages are then explained by different ordering of constraints, relative to positions on prominence scales. The lower *STRUC_C is ordered relative to constraints restricting objects from appearing without Case, the more objects appear with overt case marking. For example, if *STRUC_C is ordered below the constraint *OJ/SPEC & * \emptyset_C (which restricts specifics from appearing without Case), objects above this point on the scale are allowed to have overt case morphology, while objects below (i.e. non-specific indefinites) are not, since *STRUC_C is violated. This ranking of constraints is seen in Turkish, for example (see Aissen 2003, 455 for details). The following tableau³ illustrates this. There are two competing structures, both are specific indefinite objects, but one (the first) is specified for Case, while the other is not. Since *STRUC_C is ordered below OJ/SPEC & \emptyset_C , the form not specified for case violates a higher ranked constraint and is discarded.

³ The abbreviations in the tableau are to be read as follows: GF stands for grammatical function, in this case object (OJ). The parameter after DEF determines how definite the element in question is. In this case, specific indefinite (i.e., this is the object's position on the definiteness scale).

ROLE: PATIENT DEF: SPECIFIC, INDEFINITE	OJ/DEF & *Ø _C	OJ/SPEC & *Ø _C	*STRUC _C	OJ/NSPEC & *Ø _C
→ GF: OJ DEF: SPECIFIC, INDEFINITE CASE: ACC			*	
GF: OJ DEF: SPECIFIC, INDEFINITE CASE:		*!		

Table 3: Ranking of OT constraints for Turkish (Aissen 2003, 455)

It has been argued that Aissen’s (2003) restriction of differential marking as zero/non-zero alternations is too strong. Keine and Müller (2008) extend her framework to also account for non-zero/non-zero alternations in DOM. They argue that impoverishment rules (as known from Distributed Morphology) can be integrated into the constraints so that certain features can be targeted without eliminating morphological realization of a segment altogether. This makes alternations of non-zero/non-zero elements possible. Their system retains reference to iconicity, as does Aissen’s (2003), so that the more marked an element on a certain scale, the more marked its morphological expression.

In the next section, I review work by Nikolaeva (1999, 2001) on Northern Ostyak. I claim that its object agreement system can also be analyzed using the principles attributed to DOM.

3.3 DOM in Ostyak

Ostyak is a Uralic language, from the Ob-Ugric family. Northern Ostyak, one of its dialects, has object agreement with some, but not all, direct objects. Nikolaeva (1999, 2001) suggests that the verb agrees with objects that are secondary topics. She defines secondary topics as follows:

- (22) *Secondary topic*: An entity such that the utterance is construed to be ABOUT the relationship between it and the primary topic.

(Nikolaeva 2001, 26)

In Nikolaeva (1999), the author argues that direct objects can be split into two groups, O1 and O2, of which only the second triggers object agreement on the verb. O1 and O2 have several distinct properties. Some of these are syntactic, e.g., that O2 licenses certain processes like control of coreference in some cases, quantifier float and possessor topicalization (cf. Nikolaeva 1999, 16f.). Other differences include the information structure status of O1 and O2. Nikolaeva (1999, 35) claims that O1 expresses focus, while O2 does not. The morphology of object agreement in Ostyak is analyzed as follows (cf. Nikolaeva 1999, 4f.). The object marker OM expresses the number of the object, i.e., there are different OMs for singular, dual and plural objects. In objective forms, the OM follows the stem and is followed by a subject marker. The object marker is -Ø- for singular objects, -*ni-* for dual objects and -/ for plural objects (not shown below; -/ is also a tense marker). Agreement with singular objects is not unmarked, however, since the subject agreement morpheme changes its shape; Nikolaeva (1999, 5)

suggests that these forms are portmanteaus (she also argues Hungarian has “one unsegmentable affix which both agrees with the subject and encodes the definite status of the object”, Nikolaeva 1999, 3). The following examples illustrate some verb forms:

- (24) a. *ma jelən oməs-l-əmə*
 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-DU-1SG
 ‘I killed this reindeer.’

(Nikolaeva 1999, 4)

(24b, c) show that object agreement is not due the definiteness of the object, since this aspect does not change in the examples. With respect to the characteristics of DOM outlined above, it is possible to analyze Northern Ostyak as follows. Nikolaeva (1999, 8) points out that object agreement is triggered by those objects that are relatively subject-like, since O2 and subjects share various properties. The secondary topicality of O2 correlates with syntactic position, which in turn influences certain syntactic behavior (as mentioned above S and O2 can control coreference in some cases and trigger possessor topicalization etc., whereas O1 does neither of these things).

We can, thus, identify a property that triggers object agreement for some objects, but not for others, and it seems clear that the verb agrees with those objects that share some typical properties of subjects. This is compatible with differential object marking, or rather differential object agreement (DOA, for this term, cf. Danon 2006, 982). The scale or hierarchy that underlies this system is based on information structure and might look like this:

- (25) Primary topic > Secondary topic > focus

Not every position on this hierarchy is available for objects, however. As Nikolaeva (2001, 24) notes, “topicalization of an element other than the agent requires passivization.” She suggests (ibid.) that the grammatical role of subject and primary topicality are closely related in Northern Ostyak. An object can only be a secondary topic or a focus. A DOM-like generalization for Northern Ostyak might be that direct objects that are on the second level of this scale trigger object agreement, while those below do not. But that objects are excluded from the highest position on the scale is not necessarily surprising. There are languages that exclude objects from similarly prominent positions: Keenan (2008, 241) states that across languages, definite subjects are always allowed and sometimes the grammatical role of subject is even restricted to definites. A similar restriction, based on topicality, might be at work in Ostyak, making “secondary topic” and “focus” the only points on the scale (a reviewer suggests that “discourse-given object” and “discourse-new object”, respectively, as analogous terms).

Regarding the morphological expression of DOM/DOA in Northern Ostyak, differential marking is expressed in verb morphology. Nikolaeva (1999, 5) states that nominal objects are encoded “by the unmarked accusative homonymous with the nominative”, only pronominal objects carry accusative. (Note that this in itself might constitute a type of DOM; according to Aissen 2003, 450, Catalan is another language in which only personal pronouns are case marked; English might be another.) As seen above, Nikolaeva (1999, 4f.) argues that Ostyak subjective verb forms are segmentable into separate subject and object markers. Evidence for this is the morphological form of the OM for dual and plural objects, *-yil-* and *-l-*, respectively, that is constant for all persons (of the subject). This means that between subjective and objective forms, the absence and the presence of the object marker makes for a contrast of zero vs. non-zero morphological expression. This is, again, analogous to what we see in languages with DOM that mark the noun phrase differentially. To summarize, based on Aissen (2003), languages with DOM show the following properties:

- Not all direct objects in a language are marked in the same way. Some languages use prepositional elements (Hebrew, Spanish), some use case marking (Turkish, Hindi, Spanish).
- Givón (1976) cites examples showing differential object agreement in some Bantu languages in definiteness. I take this to mean that DOM can be expressed in verb morphology (this conclusion is hinted at in Aissen 2003, 474).
- The property of the object that triggers differential object marking varies across languages. It can be a single property, or a combination of several. Definiteness and animacy are usually cited as relevant scales.
- I claim that Northern Ostyak, as analyzed by Nikolaeva (1999, 2001), is a language that has DOM based on the secondary topicality of the object and expresses the differential morphological marking not on the noun phrase, but in verb morphology.

4 Differential object marking and Hungarian

4.1 Does Hungarian have DOM?

Given the discussion of both Hungarian verb morphology and DOM/DOA above, I want to review whether Hungarian can be analyzed as a language that exhibits differential object marking or differential object agreement.

Bossong (1998) argues that every language in the Uralic family has DOM, albeit in different forms. His analysis includes the Ugric family, of which Hungarian forms one branch, and Ostyak and Vogul the other (Ob-Ugric). I have also argued that Northern Ostyak as illustrated above has DOM. What about Hungarian?

Bossong remarks that “in written and standardized forms of the Ugric languages, the marking is only differential in the verb conjugations.” (Bossong 1998, 242). He goes on to say that even though there are some exceptions, the presence of the accusative suffix *-t* on nearly all direct objects in Hungarian can not be said to be differential (*ibid.*). Also, Bossong (1998, 241f.) suggests that while Ostyak and Vogul mark the number of the object when agreeing with it, Hungarian agrees with the object in person, since only third person objects trigger the ‘standard’ objective conjugation and second person

objects (with first person subjects) trigger *-lak*. Thus, as I have shown in section 1, it is true that Hungarian marks its objects differentially and it should also be clear that the morphological expression happens in verb morphology and not on the noun phrase (but note that Hungarian has articles, in contrast to Ostyak and Vogul).

4.1.1 Problems

There are a few problems with this suggestion, however. First, as argued above, it is not quite clear what property of the object triggers the objective conjugation. Definiteness as a semantic concept has been shown not to correlate exactly with those objects that trigger the objective conjugation; other points on the definiteness scale do not work either (e.g., specificity). Given the assumptions of the DP hypothesis, a prominence scale based on structural properties would explain the Hungarian data. The animacy scale might be involved in the explanation of the fact that only third person pronouns trigger the objective conjugation, at least indirectly (see É. Kiss 2003b, 2011, to appear for such a proposal). The information structure status of the direct object cannot be said to be the property at hand, since focused constituents trigger the objective conjugation whenever they have the properties listed in Section 1.

As mentioned above, Aissen (2003) and Keine and Müller (2008) suggest that the morphological alternations involved in DOM are such that one member of the pair is more marked or iconic, i.e., more complex. The morphological structure of Hungarian subjective and objective forms does not completely conform to this generalization. There are some very clear cases, such as the present tense third singular and all plural forms. In these, the definiteness marker *j(A)-* (or its allomorphs) is clearly present:

- | | | | |
|------|----|----------------|-------------------|
| (26) | a. | <i>vár-Ø</i> | <i>vár-ja-Ø</i> |
| | | wait-3SG | wait-OBJ-3SG |
| | b. | <i>vár-unk</i> | <i>vár-j-uk</i> |
| | | wait-1PL | wait-OBJ-1PL |
| | c. | <i>vár-tok</i> | <i>vár-já-tok</i> |
| | | wait-2PL | wait-OBJ-2PL |

First and second person suffixes, however, lack this marker across tenses, as shown in (27).

- | | | | |
|------|----|--------------------------|---------------------|
| (27) | a. | <i>keres-ek</i> | <i>keres-em</i> |
| | | search-1SG.SUBJ | search-1SG.OBJ |
| | b. | <i>keres-el</i> | <i>keres-ed</i> |
| | | search-1SG.SUBJ | search-2SG.OBJ |
| | c. | <i>keres-t-em</i> | |
| | | search-PAST-1SG.SUBJ/OBJ | |
| | d. | <i>keres-t-él</i> | <i>keres-t-ed</i> |
| | | search-PAST-2SG.SUBJ | search-PAST-2SG.OBJ |

Also, first person plural forms in the past tense and subjunctive mood are not more complex in the objective paradigm:

- | | | | |
|------|----|----------------------|---------------------|
| (28) | a. | <i>keres-t-üink</i> | <i>keres-t-ük</i> |
| | | search-PAST-1PL.SUBJ | search-PAST-1PL.OBJ |
| | b. | <i>keres-s-üink</i> | <i>keres-s-ük</i> |
| | | search-SBJV-1PL.SUBJ | search-SBJV-1PL.OBJ |

A reviewer points out that it is only ten forms that lack any sign of the marker in question. Among the remaining 14 (out of 24 objective forms: 4 tenses/moods * 6 persons/number), three forms are syncretic, viz. the plural forms of the subjunctive. Roughly half of the paradigm, then, has suffixes that could be analyzed as expressing person, number and reference to the object as portmanteaus.

Other forms show some allomorph of the definiteness marker:

- | | | | |
|------|----|----------------------|---|
| (29) | a. | <i>keres-t-etek</i> | <i>keres-t-é-tek</i> (or: <i>keres-t-e-etek</i>) |
| | | search-PAST-2PL.SUBJ | search-PAST-OBJ-2PL |
| | b. | <i>keres-ne-Ø</i> | <i>keres-né-Ø</i> (or: <i>keres-ne-e-Ø</i>) |
| | | search-COND-3SG | search-COND-OBJ-3SG |
| | c. | <i>keres-ett-Ø</i> | <i>keres-t-e-Ø</i> |
| | | search-PAST-3SG | search-PAST-OBJ-3SG |

With respect to morphological theory, this analysis makes sense. With respect to iconicity, however, the paradigms do not show a clear-cut less iconic vs. more iconic alternation of the type seen in Aissen's (2003) or Keine and Müller's (2008) cases. The additional complexity of the objective forms lies in their underlying morphological representation and maybe their semantic specification, but not always in their overt form.

Another peculiarity in the possible DOM system in Hungarian is that, as mentioned by Bossong (1998), Hungarian actually marks the direct object with a case suffix, -*t* for accusative. This case marking is not differential, i.e., direct objects are case marked regardless of their definiteness, animacy, or topicality (though there seems to be one optional exception to this generalization). This is interesting since it considerably weakens the functionalist explanation of DOM mentioned in Aissen (2003) with respect to Hungarian. This approach to DOM states that it is necessary to mark certain objects in order to distinguish them from subjects.

In Hungarian, then, marking a certain property on the verb to distinguish some 'subject-like' objects from others is heavily redundant, since direct objects are case marked anyway and can thus not be mistaken for subjects. This situation contrasts with other languages mentioned above that have been said to exhibit DOM. In these languages, we either have seen differential object agreement (especially Northern Ostyak, though the Bantu languages mentioned above might also belong to this category) or differential object marking (Turkish, Hindi, Persian, Spanish, Catalan), but no system in which there is differential object agreement and non-differential case marking everywhere.

Regarding the question of whether Hungarian exhibits DOM or not, one can conclude that there is, in a trivial sense, differential object marking in Hungarian, given that there are two verbal paradigms. But these paradigms, in a strict sense, do not conform to all aspects of DOM as analyzed by Aissen (2003). Differential marking in Hungarian is redundant in that it cannot serve the purpose of distinguishing objects

from subjects, since accusative case marking is widespread. A reviewer points out that the system is not completely redundant, since with dropped objects, it is the verb form alone which makes it possible to interpret whether the object is third person (objective morphology) or first or second person (subjective morphology, roughly). This is a different kind of redundancy, however, for the following reason: from the functionalist perspective, the marking of certain objects serves the purpose to disambiguate subject from object. The Hungarian conjugations do not do this, they merely disambiguate between objects. A final difference to other languages with DOM is that the property to which DOM is sensitive in Hungarian cannot simply be definiteness, as suggested by Bossong (1998), i.e., we are not dealing with a semantic or pragmatic restriction alone.

To conclude, while stating that Hungarian exhibits a certain kind of DOM is correct, it seems that it is a peculiar kind that does not adhere to principles seen in other languages. In the next section, I review evidence that historically, this has not always been the case and Hungarian had a more regular system of DOM.

4.2 DOM in earlier Hungarian

In Old Hungarian, accusative case marking was not as widespread as today. Marcantonio (1985, 280f.) calls Old Hungarian a “definite-accusative” language, but argues that the accusative suffix *-t* appeared on topical, rather than only definite direct objects. É. Kiss (2011, 4) cites an example from the Munich codex, where a direct object appears without case marking (around 1466):

- (30) [*o'* *kenček* *meğnituan*] *aianlac* *neki*
 their treasures-Ø unlocking offer-3PL.SUBJ him
aiandokocat
 presents-ACC
 ‘unlocking their treasures they offer him presents’

(Müncheni K. 2, 11⁴)

In her account of the development of the present system of case marking and verb morphology in Hungarian, Marcantonio (1985, 281f.) assumes three main stages:

- First, the accusative marker *-t* spread to all direct objects, not just topicalized ones.
- The continuing marking of topicalized direct objects was taken up by the objective conjugation. This topic-agreement arose by the cliticization and agglutination of a marker referring to the topic (cf. Givón 1976, Bresnan and Mchombo 1987 for such processes in other languages).
- In present Hungarian, the positions of topic and focus are fixed in the clause, the topic position preceding the focus position, which in turn directly precedes VP. Marcantonio (1985, 282) argues that the grammaticalization of these positions “made the continued morphological marking of the Topicalized DO redundant.”

She concludes that what remains today is “a pure and (I would say) now irrelevant morphosyntactic signalling of the definite DO” (Marcantonio 1985, 282). This marking, i.e., the objective conjugation, has been redundant since the development of the definite article in Hungarian, as É. Kiss (to appear, 8) suggests.

⁴ http://kt.lib.pte.hu/cgi-bin/kt.cgi?konyvtar/kt06010401/1_0_2_pg_196.html

4.3 Summary

If we take DOM not only to mean that objects are marked differentially, be it on the verb or on the object itself, but that DOM follows certain given principles, the Hungarian subjective and objective paradigms seem a bit odd. As the discussion above suggests, the marking of a certain property of the object in verb morphology is quite redundant. If we accept the idea that the first use of the objective conjugation was to mark the topicality of the object, this was made redundant by the grammaticalization of a syntactic topic position. A further reanalysis of the objective conjugation as a marker of the definiteness of the object was made redundant by the development of definite articles.

5 Discussion and conclusions

I tried to show in this paper that the Hungarian subjective and objective conjugations constitute an interesting case when one tries to analyze them using well established criteria of DOM. What makes the Hungarian verbal paradigms similar to DOM is that the range of objects co-occurring with the subjective and objective conjugations very roughly coincide with the semantic properties of indefiniteness and definiteness, respectively. I have argued that this is not an exact correlation, however, and that finding the exact property has proved to be difficult.

In addition, DOM has been claimed to serve the purpose of distinguishing the grammatical relations of subject and object if objects have properties that are typical of subjects. This suggestion is based on cross-linguistic generalizations that subjects tend to be more animate, definite and topical than objects (cf. Givón 1976 for example). This functional explanation of DOM does not hold for Hungarian, since subjects and objects are distinguished morphologically anyway.

Given the historical development of the verbal paradigms sketched above, its second stage poses an interesting case for this functional explanation. The assumption was that the objective conjugation arose in order to mark topicalized direct objects. Evidence for this is provided by Marcantonio (1985, 288f.), citing examples of the objective conjugation appearing with indefinite objects that are present in the discourse. From the functionalist point of view, this differential marking cannot serve the purpose of distinguishing subject and object, since case marking on objects was already present.

To summarize, the present system of Hungarian verb morphology does not seem to be an instance of strict DOM that we would expect to arise in a language from scratch. This is not because DOM is expressed on the verb rather than the object, since Northern Ostyak has differential object agreement in its verbal paradigm and does conform to strict DOM principles. Rather, the present Hungarian system is the result of two reanalyses of an original system of DOM based on topicality, expressed by an alternation of zero/non-zero case morphology. The historical development can explain why Hungarian deviates from other DOM languages in several ways. (a) The objective conjugation is redundant and lacks the function of distinguishing certain grammatical relations from others. (b) It is difficult to find out what triggers the objective conjugation (given the odd behavior of *minden*, for example). (c) The objective conjugation is more marked, because it has a smaller range of use and more specific triggers than the

subjective conjugation. However, the more specific nature of the objective conjugation does not clearly correlate with iconicity across all forms in the paradigm (though it does in the present tense).

A similar type of DOM might be found in Hebrew. Danon (2006) argues that DOM is triggered by structural definiteness (DPs), not semantic definiteness and suggests that such “structural DOM” (cf. Danon 2006, 1005) might arise from earlier DOM systems based on semantic and pragmatic triggers. The analysis presented here might provide evidence for this view of DOM.

Appendix

Note that the conclusion reached above does not mean that the formal OT model of DOM cannot explain the Hungarian system. Of course, defining the trigger of the objective conjugation is crucial. If we assume the DP hypothesis to be correct, the following sketch of a constraint system could derive the distribution of verb morphology in Hungarian (and, of course, with the necessary adaptations in Northern Ostyak, etc.).

For languages that have DOA, constraints in the spirit of Aissen (2003) and Keine and Müller (2008) should refer to verb morphology, sanctioning the overt expression of object agreement suffixes in some cases. (There can of course be languages that have object agreement with all direct objects, just like there are languages that mark all direct objects.) Let us assume, again, that the relevant cases are those where the object is a DP. One constraint, then, should penalize the lack of objective verb morphology when a DP is present, let us call it $*\emptyset_{\text{OBJ}}$. Another constraint, an economy constraint, should penalize the presence of OBJ morphology, since it might be more marked: $*\text{STRUC}_{\text{OBJ}}$. The input for an optimization similar to Tableau 3 above (p. 12) would be structures like [verb- φ .SUBJ/OBJ DP], for example. This structure stands for a verb (with φ standing in for person and number and SUBJ or OBJ for subjective or objective suffixes, respectively, as in the glosses throughout this paper) and its direct object, a DP or an NP.

If $*\emptyset_{\text{OBJ}}$ is ranked above $*\text{STRUC}_{\text{OBJ}}$, the former constraint is violated and the structure loses out to a competing structure like [verb- φ .OBJ DP], which violates a lower ranked constraint. A structure with an NP object like [verb- φ .OBJ NP] would violate the economy constraint $*\text{STRUC}_{\text{OBJ}}$, while [verb- φ .SUBJ NP] would not. For Ostyak, it is not necessarily the ranking of the constraints that has to be adapted, but rather the formulation of the object's property, i.e., NP/DP in the constraints above would have to be replaced (cf. also Morimoto 2002 for an OT approach to DOM in verb morphology in Bantu languages).

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