

# Differential object agreement in Hungarian

Issues in the syntax of case and agreement  
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## 1 Introduction

Today we'll look at object agreement in Hungarian, in particular object agreement with personal pronouns. This will give us a chance to look at Béjar & Rezac's (2009) *Cyclic Agree*, at failed Agree relations as well (Preminger 2014), and differential object marking (DOM) more generally (Comrie 1977, 1989, Bossong 1985, Aissen 2003).

In a nutshell, Hungarian object agreement is sensitive to the person of the subject *as well as* the person of the object. This can be seen in the following examples, involving personal pronouns as objects.<sup>1</sup>

- (1) 3rd person subject, 3rd person pronoun object

*Mari lát-ja* / \**lát* *ő-t*.  
Mari see-3SG.OBJ see.3SG.SBJ s/he-ACC  
'Mari sees him/her.'

- (2) 3rd person subject, 1st person pronoun object

*Mari lát* / \**lát-ja* *engem*.  
Mari see.3SG.SBJ see-3SG.OBJ I.ACC  
'Mari sees me.'

(1) and (2) show that third person pronouns trigger object agreement (subject *and* object agreement: 1SG.OBJ, but first person pronoun objects do not (only subject agreement: 1SG.SBJ).

Things become more interesting with second person objects:

<sup>1</sup> Abbreviations: 1 = first person, 2 = second person, 3 = third person, ACC = accusative, DAT = dative, DO = direct object, DO = direct object, NOM = nominative, OBJ = object, PL = plural, PST = past, SBJ = subject, SG = singular.

- (3) 3rd person subject, second person pronoun object

*Mari lát / \*lát-ja téged.*  
 Mari see.3SG.SBJ see-3SG.OBJ you.SG.ACC  
 ‘Mari sees you (sg.)’

- (4) 1st person subject, second person pronoun object

*(Én) lát-lak / \*lát-ok / \*lát-om téged.*  
 I see-1SG>2 see-1SG.SBJ see-1SG.OBJ  
 ‘I see you (sg.)’



What’s going on here? Third person pronouns always trigger agreement, independently of the person of the subject. Second person objects, on the other hand, only trigger object agreement with first person subjects, but not third person subjects. How does this work?

### Plan for today

- Hungarian object agreement in general
- Hungarian object agreement in person
- Cyclic Agree
- Putting things together

## 2 Hungarian object agreement

For lexical direct objects (DOs), definiteness is a good predictor of whether there is agreement (but things are bit more complicated). Number only plays a role for subject agreement, but never for object agreement.

- (5) a. *Mari lát egy kutyá-t.*  
 Mari see.3SG.SBJ a dog-ACC  
 ‘Mary sees a dog.’
- b. *Mari lát-ja a kutyá-t.*  
 Mari see-3SG.OBJ the dog-ACC  
 ‘Mari sees the dog.’

In many languages with DOM, animacy and specificity play a role in determining case-marking (or agreement), but neither of these properties are relevant in Hungarian.

- (6) *Minden nap egy görög énekes-t hallgat-t-ak / \*hallgat-t-ák. Mária-nak*  
 every day a Greek singer-ACC listen-PST-3PL.SBJ listen-PST-3PL.OBJ Maria-DAT  
*hív-ják.*  
 call-3PL.OBJ

‘Every day, they listened to a Greek singer. Her name is Maria.’

(Coppock & Wechsler 2012: 715)

For our purposes, two main approaches will be interesting today.

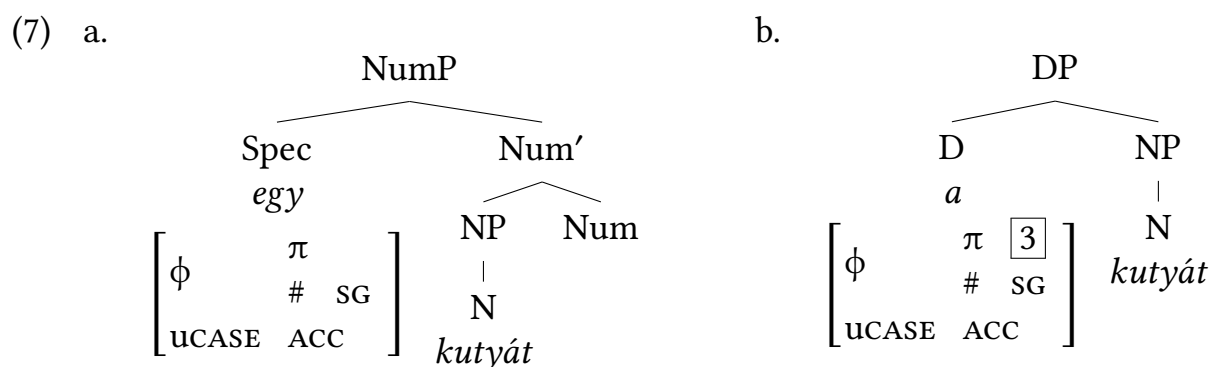
### Approaches to Hungarian object agreement

- **Syntactic approaches** focus on the syntactic structure of the object: Bartos (1999), É. Kiss (2002) suggest that all and only DPs trigger agreement (non-agreeing objects are NPs or NumPs); den Dikken (2004, 2006) is slightly different in arguing for clitics; É. Kiss (2013) proposes an analysis in terms of inverse agreement and topic-worthiness
- **Semantic approaches** focus on the interpretation of the object: Coppock (2013) proposes that certain lexical items (quantifiers, definite determiners, proper names, ...) come with a formal feature which is motivated by their anaphoricity; they presuppose an entity or a set of entities in the discourse

I will be adopting a “hybrid” version of the above approaches:

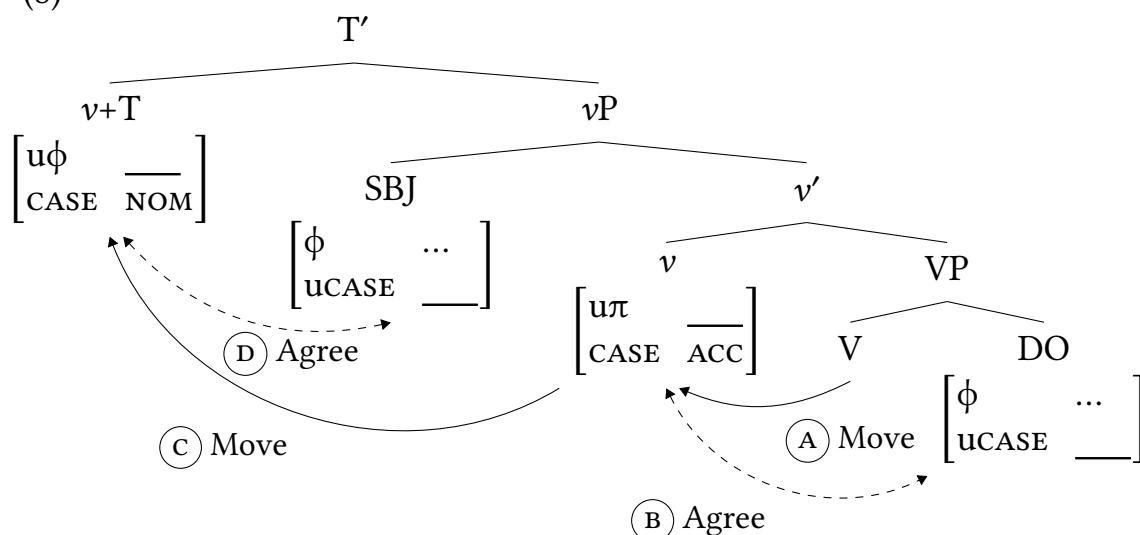
- all objects triggering object agreement are DPs
- all objects triggering object agreement carry **person features**
  - ➡ this implies that not all NPs/DPs come carry person features; cf. (7a) and (7b)
  - ➡ and four classes of person, rather than three; cf. (11)
- carrying person features makes a DP referential (cf. Richards 2008)
- non-agreeing objects lack person features (but can project a DP)

Agreeing and non-agreeing objects can be represented in the following way:



The asymmetry in number agreement between subjects and objects is shown in (8) as a difference on T and  $v$ : T has an [ $u\phi$ ] (person and number) probe,  $v$  only has a [ $u\pi$ ] (person) probe.

(8)



The order of operations in (8) is as follows:

- (A)  $V$  is merged with the direct object; it subsequently moves to  $v$ .
- (B) Agree between  $v$  and the direct object, valuation of  $\pi$  and  $\text{CASE}$  features.
- (C) Movement of  $v$  to  $T$ .
- (D) Agree between  $v+T$  and the subject, valuation of  $\phi$  and  $\text{CASE}$  features.

In order for object agreement to arise,  $v$  has to be valued by a person feature. If  $v$  does not encounter an object with person features, it will abort probing and the derivation will continue with  $v$  no longer active and receiving an empty default value. I assume that a probe only continues to probe after a successful Agree relation. Preminger's (2014) formulation of Agree is shown in (9).

(9)  $\text{FIND}_{\phi}(f)$ :

Given an unvalued feature  $f$  on a head  $H^0$ , look for an XP bearing a valued instance of  $f$ . Upon finding such an XP, check whether its case is acceptable with respect to case discrimination:

- a. *yes*  $\rightarrow$  assign the value of  $f$  found on XP to  $H^0$
- b. *no*  $\rightarrow$  abort  $\text{FIND}_{\phi}(f)$  and continue with derivation (Preminger 2014: 159)

### Interim summary

- The Hungarian verb agrees with the subject in person and number...
- ... and with the object in person
- Only objects with person features trigger object agreement
  - this includes definite DPs
  - and personal pronouns

**?** But what about our examples in (2) (with a 1st person object) and (3) (with a 2 person object), both with 3rd person subjects?

### 3 Hungarian object agreement with personal pronouns

Let's look at the previous data again.

(1) 3rd person subject, 3rd person pronoun object

*Mari lát-ja* / \**lát* *ő-t*.  
 Mari see-3SG.OBJ see.3SG.SBJ s/he-ACC  
 'Mari sees him/her.'

(2) 3rd person subject, 1st person pronoun object

*Mari lát* / \**lát-ja* *engem*.  
 Mari see.3SG.SBJ see-3SG.OBJ I.ACC  
 'Mari sees me.'

(3) 3rd person subject, 2nd person pronoun object

*Mari lát* / \**lát-ja* *téged*.  
 Mari see.3SG.SBJ see-3SG.OBJ you.SG.ACC  
 'Mari sees you (sg).'

(4) 1st person subject, 2nd person pronoun object

(*Én*) *lát-lak* / \**lát-ok* / \**lát-om* *téged*.  
 I see-1SG>2 see-1SG.SBJ see-1SG.OBJ you.SG.ACC  
 'I see you (sg).'

It looks like we can agree "downward" on (10), but not upward (and 3→3 works, too).

(10) 1 > 2 > 3

The whole agreement paradigm can be represented as in Table 1. This looks somewhat like a so-called "inverse agreement" pattern (we'll see this in §4).

**?** What do the agreeing forms in (1)–(4) have in common? How can we combine this with (10) and Table 1?

SBJ → DO	1	2	3
1		OBJ	OBJ
2	SUBJ		OBJ
3	SUBJ	SUBJ	OBJ

**Table 1** Distribution of agreement with personal pronoun DOs. Shaded cells show *inverse configurations*.



The idea will be that the verb spelling out the OBJ forms spells out person features of both the subject *and* the object. The SBJ forms only spell out a single feature.

SBJ → DO	1	2	3
1		[1, 2]	[1, 3]
2	[2]		[2, 3]
3	[3]	[3]	[3, 3]

**Table 2** Distribution of agreement with personal pronoun DOs, showing features on the verb.

## 4 Cyclic Agree

*Cyclic Agree* gives us the type of operation that we're looking for. Cyclic Agree is a version of Agree; it deletes uninterpretable features and values Case features. Béjar & Rezac (2009) assume that **every argument must be licensed by an Agree relation** (their *Person-Licensing Condition*). This is similar to the Case Filter which requires every DP to have Case; otherwise leading to ungrammaticality. In addition, Cyclic Agree is more flexible with respect to  $\phi$ -features.

- An Agree operation **does not have to** exhaust a probe, probes can agree multiple times
- Cyclic Agree is sensitive to hierarchies like the ones shown in (11)

(11) a. **Person hierarchy**

$$1 > 2 > 3$$

b. **Person features as sets**

$$[1] = \left\{ \begin{array}{l} \text{SPEAKER,} \\ \text{PARTICIPANT,} \\ \pi \end{array} \right\} \quad [2] = \left\{ \begin{array}{l} \text{PARTICIPANT,} \\ \pi \end{array} \right\} \quad [3] = \{\pi\} \quad [ ] = \{\}$$

c. **Superset relations among person features**

$$[1] \supset [2] \supset [3] \supset \{\}$$

Corresponding to complex person features, *probes* are also complex, e.g. (12):

(12) “Articulated” probe on  $v$

$$v \begin{bmatrix} u1 \\ u2 \\ u3 \end{bmatrix}$$

- The unvalued sets of features on (12) can be valued separately
- If a given set of features is valued, it **entails its subsets**
- e.g. a [1] will value the whole probe in (12), but a [3] will only value [u3]

### 4.1 Direct configurations

Consider a sentence like (13), with a 3rd person object and a 1st person subject.

(13) I like her.

(14)  $v$  enters an Agree relation with a DP bearing [3]

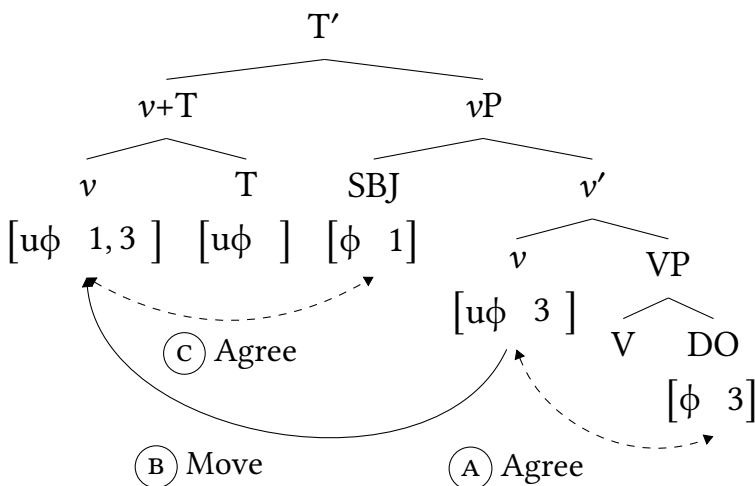
$$\begin{bmatrix} v \\ u1 \\ u2 \\ u3 \end{bmatrix} \xrightarrow{\textcircled{A} \text{ Agree}} \begin{bmatrix} v \\ u1 \\ u2 \\ 3 \end{bmatrix}$$

(15) illustrates a second Agree relation from the same probe: in step  $\textcircled{B}$ , the same probe enters an Agree relation with the 1st person subject, which values [1] directly and [2] by entailment.

(15)  $v$  is not fully valued and enters an Agree relation with the subject

$$\begin{bmatrix} v \\ u1 \\ u2 \\ u3 \end{bmatrix} \xrightarrow{\textcircled{A} \text{ Agree}} \begin{bmatrix} v \\ u1 \\ u2 \\ 3 \end{bmatrix} \xrightarrow{\textcircled{C} \text{ Agree}} \begin{bmatrix} v \\ 1 \\ (2) \\ 3 \end{bmatrix}$$

(16)



- In (14)–(16), step (A) is an Agree relation with 3rd person goal and (C) an Agree relation with a 1st person goal
- This type of configuration, with a 1 person subject and a 3rd person object, is called *direct*
- The SBJ is higher on (10) than the OBJ

**?** When is a second cycle of Agree possible?

## 4.2 Inverse configurations and added probes

Let's consider a context with a 3rd person subject, and a 1 person object now. In (18), the probe  $\nu$  enters an Agree relation with the 1st person subject.

(17) She likes me.

(18)  $\nu$  enters an Agree relation with a DP bearing [1]

$$\begin{array}{c} \nu \\ \left[ \begin{array}{c} u1 \\ u2 \\ u3 \end{array} \right] \end{array} \xrightarrow{\text{(A) Agree}} \begin{array}{c} \nu \\ \left[ \begin{array}{c} 1 \\ (2) \\ (3) \end{array} \right] \end{array}$$

After step (A), the probe in (18) is already **fully valued** and cannot no longer probe; it cannot take on another set of person features.

**?** At this point, the subject has not entered and cannot enter an Agree relation with the probe in question. So what do we do?

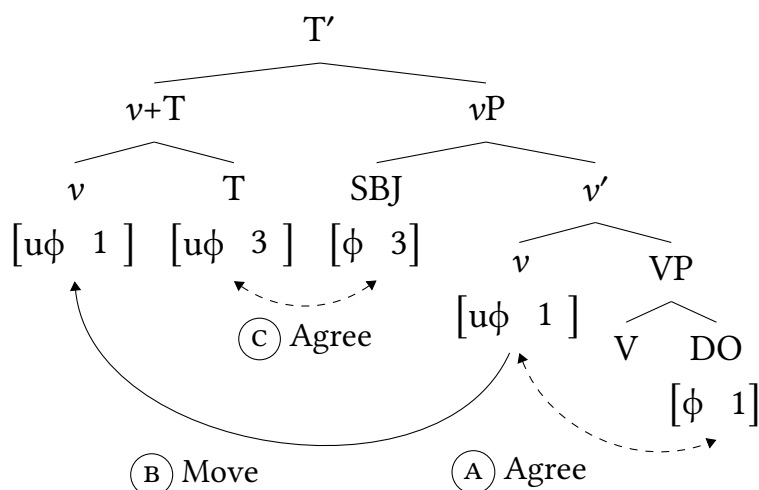
Béjar & Rezac (2009) suggest that at this stage, a probe is added. We'll make things a bit more straightforward and just treat this as T.

(19)  $\nu$  is fully valued; T enters an Agree relation with the 3rd person subject

$$\begin{array}{c} \nu \\ \left[ \begin{array}{c} u1 \\ u2 \\ u3 \end{array} \right] \end{array} \xrightarrow{\text{(A) Agree}} \begin{array}{c} \nu \\ \left[ \begin{array}{c} 1 \\ (2) \\ (3) \end{array} \right] \end{array} \quad \begin{array}{c} T \\ \left[ \begin{array}{c} u1 \\ u2 \\ u3 \end{array} \right] \end{array} \xrightarrow{\text{(C) Agree}} \begin{array}{c} T \\ \left[ \begin{array}{c} u1 \\ u2 \\ 3 \end{array} \right] \end{array}$$



(20)



### Interim summary

- Probes can be *articulated*: they can be complex and probe repeatedly
- They are therefore sensitive to the **order** in which they enter Agree relations with arguments
- For a probe agreeing with two arguments, e.g. DO and SBJ, if ...
  - the person features of SBJ  $\supset$  DO, the probe agrees with both: **direct**
  - the person features of SBJ  $\subseteq$  DO, the probe only agrees with the first one: **inverse**
- Thus, for combinations of 1 and 3 person, ...
  - 1st SBJ  $\supset$  3rd OBJ: v: [1, 3] (cf. (16))
  - 3rd SBJ  $\subset$  1st OBJ: v: [1], T: [3] (cf. (20))

## 5 Putting things together

Here's our Hungarian data again.

(1) 3rd person subject, 3rd person pronoun object

*Mari lát-ja / \*lát ő-t.*  
 Mari see-3SG.OBJ see.3SG.SBJ s/he-ACC  
 'Mari sees him/her.'

(2) 3rd person subject, 1st person pronoun object

*Mari lát / \*lát-ja engem.*  
 Mari see.3SG.SBJ see-3SG.OBJ I.ACC  
 'Mari sees me.'

## (3) 3rd person subject, 2nd person pronoun object

*Mari lát / \*lát-ja téged.*  
 Mari see.3SG.SBJ see-3SG.OBJ you.SG.ACC  
 ‘Mari sees you (sg.)’

## (4) 1st person subject, 2nd person pronoun object

*(Én) lát-lak / \*lát-ok / \*lát-om téged.*  
 I see-1SG>2 see-1SG.SBJ see-1SG.OBJ you.SG.ACC  
 ‘I see you (sg.)’

## (21) 2nd person subject, 1st person object

*Te lát-sz / \*lát-od engem.*  
 you.SG see-2SG.SBJ see-2SG.OBJ I.ACC  
 ‘You (sg.) see me.’



- We see object agreement in direct configurations, i.e. when
  - SBJ  $\supset$  DO:  $1 \rightarrow 2, 1 \rightarrow 3, 2 \rightarrow 3$
- We don’t see object agreement in inverse configurations, i.e. when
  - SBJ  $\subset$  DO:  $3 \rightarrow 2, 3 \rightarrow 1, 2 \rightarrow 1$
- $3 \rightarrow 3$  is a bit special...
- We can generalise this as (22)

## (22) Object agreement in Hungarian

When  $v$  is valued twice, the verb shows object agreement.

So we need two types of syntactic derivations, direct and inverse ones (plus some morphology for  $3 \rightarrow 3$ ).

## 5.1 Direct configurations

## (4) 1st person subject, 2nd person pronoun object

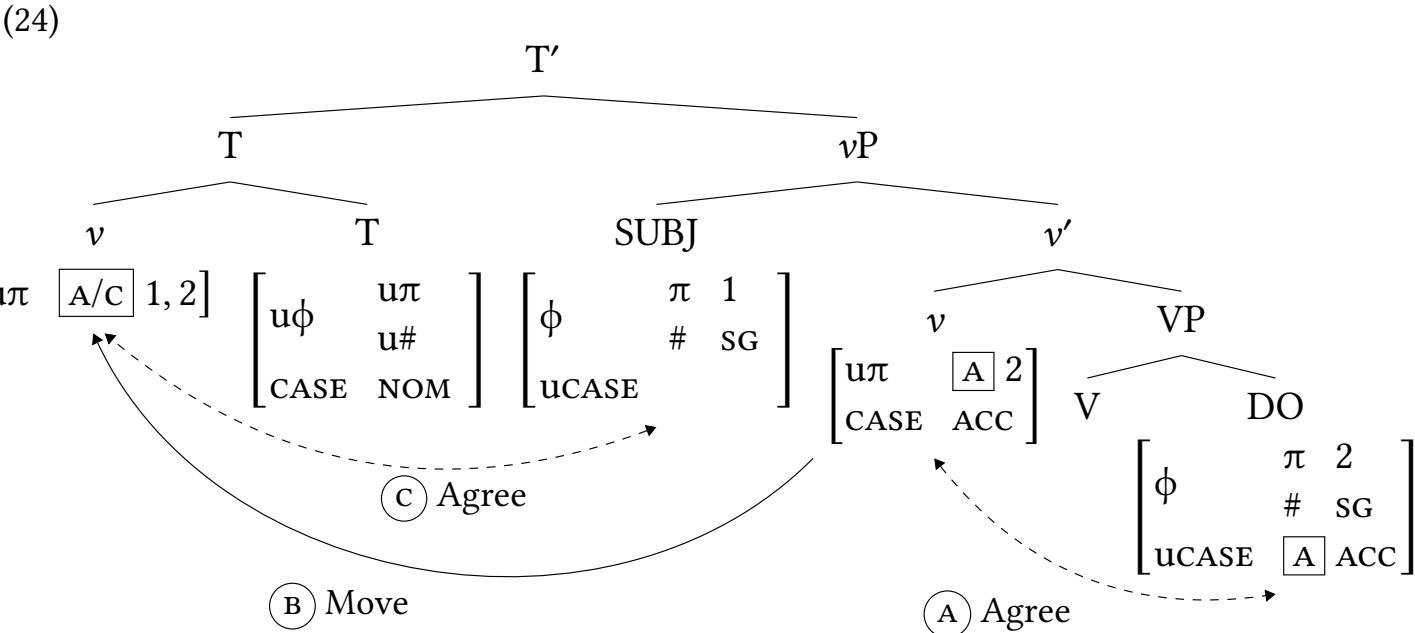
*(Én) lát-lak / \*lát-ok / \*lát-om téged.*  
 I see-1SG>2 see-1SG.SBJ see-1SG.OBJ you.SG.ACC  
 ‘I see you (sg.)’

(23) 1 → 2: OBJ

SUBJ	<i>v</i>	DO
[1]—[1]		
	[2]—[2]	
	[3]	

(24) illustrates this process as part of a derivation.

- (A) Agree between *v* and the direct object, valuation of  $\pi$  and CASE features: *v* is [2].
- (B) Movement of *v* to T.
- (C) *v* probes again; the subject's [1]  $\supset$  [2], so *v* agrees again and is now valued as [1, 2].



5.2 Inverse configurations

(3) 3rd person subject, 2nd person pronoun object

*Mari lát / \*lát-ja téged.*

Mari see.3SG.SBJ see-3SG.OBJ you.SG.ACC

‘Mari sees you (sg.)’

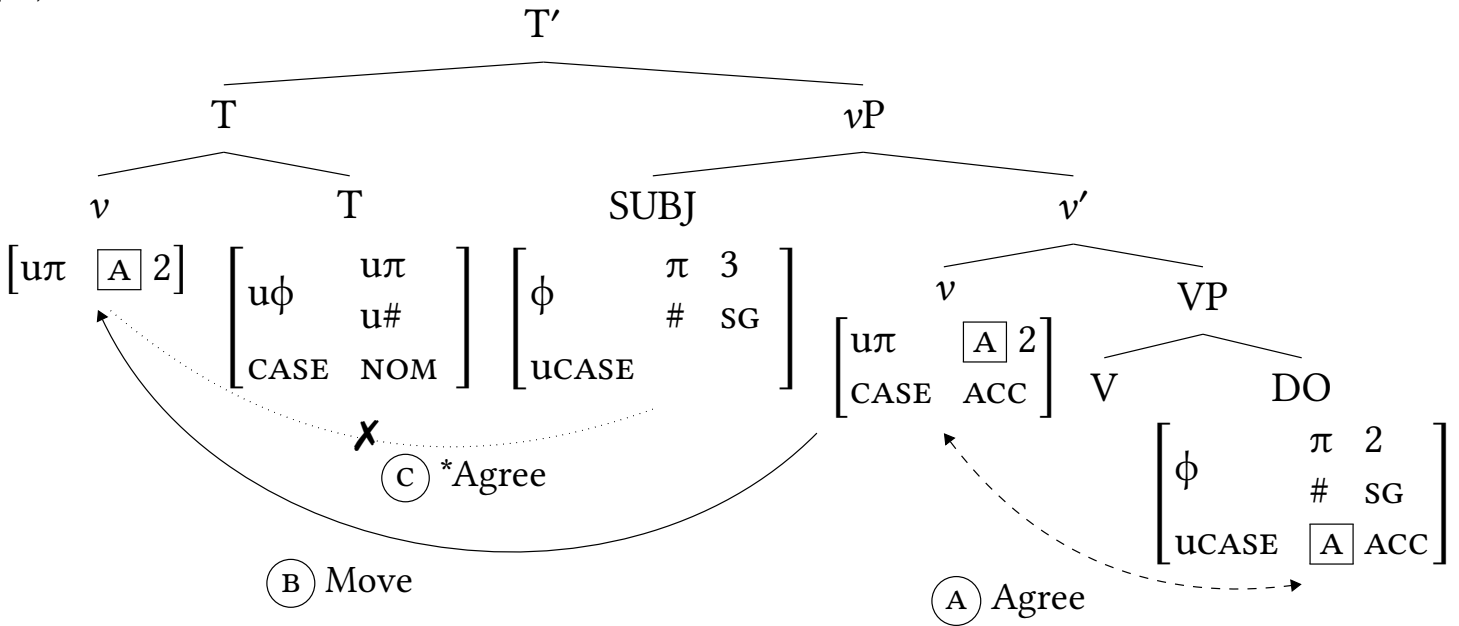
(25)  $3 \rightarrow 2$ : SBJ

SUBJ	T	v	DO
	[u1][u1]		
	[u2] [2] —[2]		
[3]— [3]	[3]		

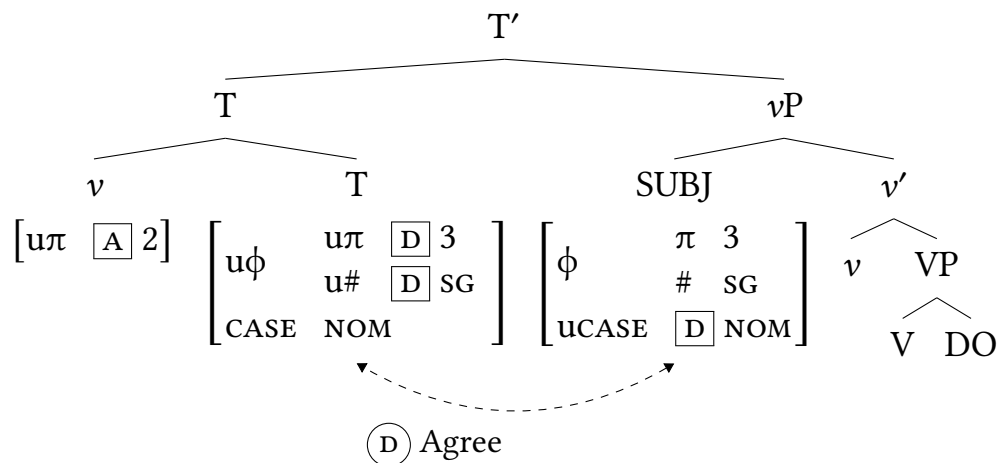
(26) illustrates this process as part of a derivation.

- (A) Agree between  $v$  and the direct object, valuation of  $\pi$  and CASE features:  $v$  is [2].
- (B) Movement of  $v$  to T.
- (C)  $v$  probes again; the subject's [3]  $\in$  [2], so  $v$  cannot agree with the subject!
- (D) T agrees with the subject;  $v$  and T have been valued separately

(26) a.



b.



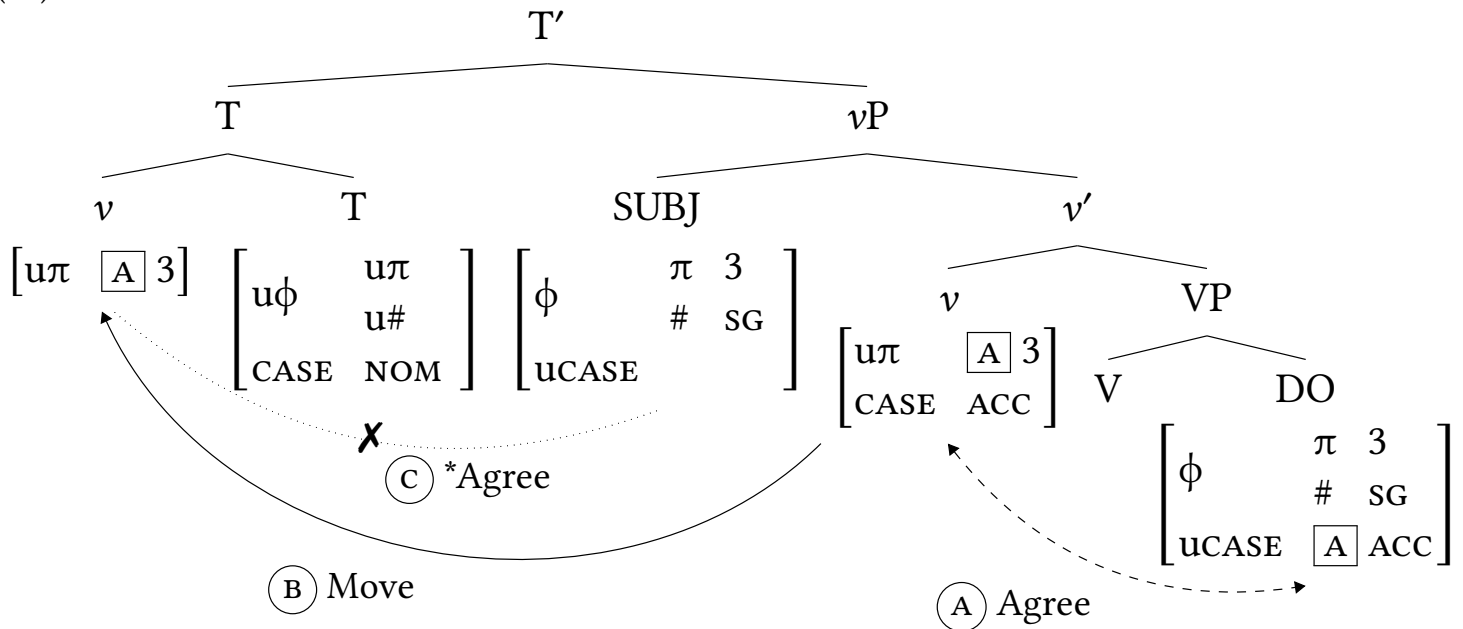
### 5.3 3rd person → 3rd person

(1) 3rd person subject, 3rd person pronoun object

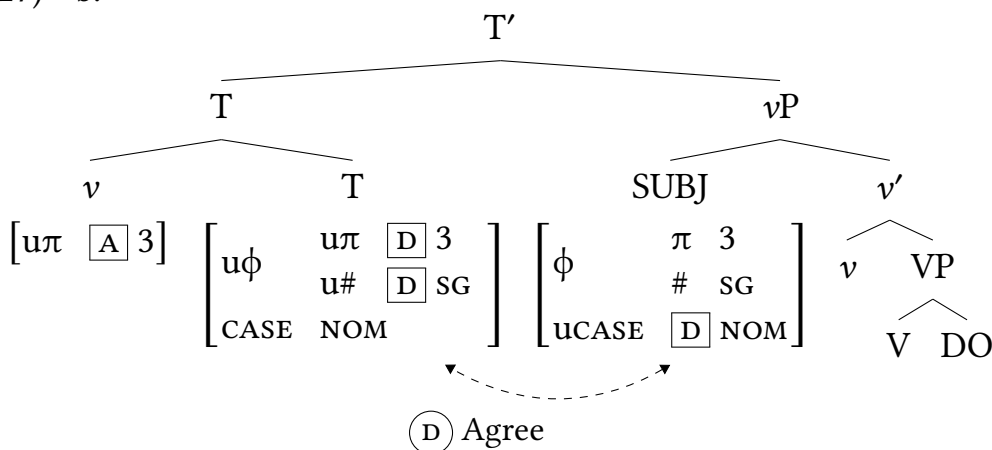
*Mari lát-ja / \*lát ő-t.*  
 Mari see-3SG.OBJ see.3SG.SBJ s/he-ACC  
 'Mari sees him/her.'

- (A) Agree between  $v$  and the direct object, valuation of  $\pi$  and CASE features:  $v$  is [3].
- (B) Movement of  $v$  to T.
- (C)  $v$  probes again; the subject's [3]  $\subset$  [3], so  $v$  cannot agree with the subject!
- (D) T agrees with the subject;  $v$  and T have been valued separately

(27) a.



(27) b.



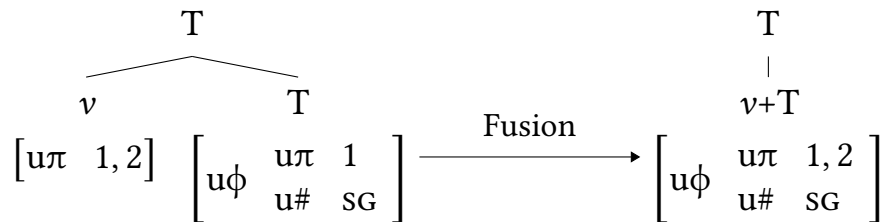
## 5.4 Spelling-out agreement

We're nearly there.

- Hungarian spells out a single agreement suffix
  - either subject agreement (in person and number) alone
  - or both subject agreement (in person and number) and object agreement (in person)
- We can get this result by *fusing*  $v$  and T when their **strongest person features match**
  - The output of (24) is shown in (28):  $v$  and T fuse
  - The output of (26) is shown in (29):  $v$  and T **cannot fuse**
  - The output of (27) is shown in (30):  $v$  and T fuse

(28) 1 → 2: Fusion of  $v$  and T

a.

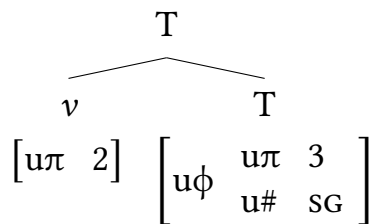


b.  $v+\text{T}$ : [1, 2, SG]

c. /-lAk/ ↔ [1, 2, SG]

(29) 3 → 2: No fusion of  $v$  and T

a.

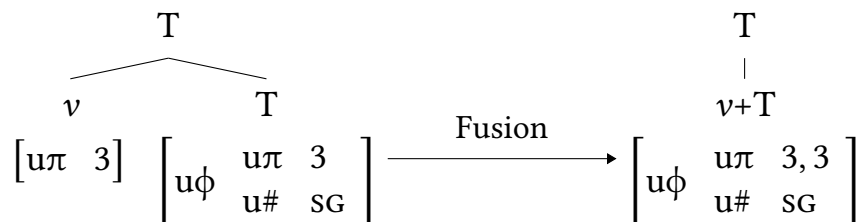


b. T: [3, SG],  $v$ : [2]

c. /-Ø/ ↔ [3, SG]

(30) 3 → 3: Fusion of  $v$  and T

a.



b.  $\text{T}+v$ : [3, 3, SG]

c. /-a/-i/-e/ ↔ [3, 3, SG]

## 6 Conclusions



- Hungarian object agreement is sensitive to the person of **the subject *and* the object**
- Cyclic Agree and complex person features help in deriving this
- When  $v$  enters an Agree relation with both arguments, we see object agreement
- This “double” agreement is only possible when the subject’s person features are a proper superset of the object’s
- We will see similar patterns again!

## 7 Further reading

### 7.1 Syntactic approaches

- Bárány (2015, to appear) is the analysis illustrated here.
- Bartos (1997, 1999, 2001): that the trigger of object agreement in Hungarian is the DP structure of the direct object (non-agreeing objects are NumPs or NPs).
- Coppock & Wechsler (2012): a formal feature which is lexically specified on definite determiners, pronouns, certain quantifiers, etc. triggers agreement; they argue that what we see is agreement, rather than clitics.
- Den Dikken (2004, 2006): the agreement patterns can be derived from interactions between agreement affixes and clitics; his analysis involves complex representations of personal pronouns and null clitics when we don’t see agreement.
- É. Kiss (2002, 2012) follows Bartos and assumes that DP structure triggers agreement.
- É. Kiss (2003, 2005, 2013): Hungarian is subject to an inverse agreement based on the relative topic-worthiness of the subject and the object
- Rocquet (2013): an analysis of Hungarian object agreement in a nanosyntactic framework.

### 7.2 Semantic approaches

- Coppock (2013): anaphoricity motivates a formal feature which triggers agreement in the syntax; w.r.t. object agreement with pronouns, this predicts that first and second pronouns, being non-anaphoric, do not trigger agreement

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