

# Unifying structural and lexical case assignment in Dependent Case Theory

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## 1 Introduction

### The problem:

- Dependent Case Theory (DCT) proposes that case is a result of a structural relation between two DPs (as opposed to being assigned by a functional head) (Marantz 1991; McFadden 2004; Baker & Vinokurova 2010; Baker 2015). However, the DCT cannot completely abandon case assignment via a head, as this mechanism accounts for lexical case (e.g. lexical dative).
- Moreover, structural and lexical datives are morphologically identical and often behave similarly, ‘just where the line should be drawn between the two is a theoretical matter’ (Baker 2015:13).

### Claim:

- We argue for a unified approach to lexical and structural dative case assignment under DCT, implemented in a derivational fashion, via the operation Agree.
- While structural DAT is assigned as a high dependent case in the VP in the presence of a lower (later ACC) DP, lexical DAT is assigned in the same configuration, in the VP, in the presence of another silent or overt co-argument DP.

### 1.1 Theoretical background: Dependent Case Theory

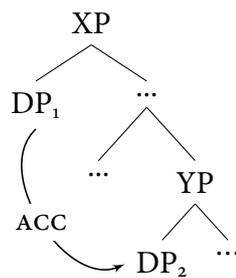
- Result of the work of Marantz (1991); McFadden (2004); Baker & Vinokurova (2010); Baker (2012, 2015), among others, adopting similar ideas by Yip, Maling & Jackendoff (1987); Bittner & Hale (1996); Kiparsky (1992, 2001); Wunderlich (1997); Stiebels (2002).
- Case assignment in DCT relies primarily on Marantz’s (1991) disjunctive case hierarchy:
  - (1) *Case realisation disjunctive hierarchy* (Marantz 1991:24)
    - a. Lexically governed case [case determined by the lexical properties of a particular item, such as quirky case-assigning verbs in Icelandic, or adpositions]
    - b. Dependent case (accusative case and ergative case)
    - c. Unmarked case [nominative or absolutive case assigned to any NP in a clause, genitive case assigned to any NP inside a nominal]
    - d. Default case [assigned to any NP not otherwise marked for case] (taken in the adapted form from Baker (2015:48))

- There are several steps in case assigning process.
- *Step 1: Lexically governed case*
  - All DPs selected by lexical items (verbs, prepositions, etc.) that idiosyncratically assign a particular case, receive the corresponding case from the lexical head upon c-selection.
- *Step 2: Dependent case*
  - Pairs of remaining caseless DPs are inspected in their local domains. Dependent case is assigned to them according to (a variation of) the following case assignment rules:

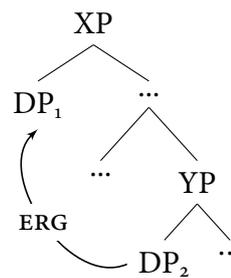
(2) *Rules for dependent case assignment* (Baker 2015:48-49)

- If there are two distinct DPs in the same spell out domain such that DP<sub>1</sub> c-commands DP<sub>2</sub>, then value the case feature of DP<sub>2</sub> as accusative unless DP<sub>1</sub> has already been marked for case (3).
- If there are two distinct DPs in the same spell out domain such that DP<sub>1</sub> c-commands DP<sub>2</sub>, then value the case feature of DP<sub>1</sub> as ergative unless DP<sub>2</sub> has already been marked for case (4).

(3) nominative-accusative alignment



(4) ergative-absolutive alignment



- Parametrisation of languages (four-way typology (Levin & Preminger 2015)):
  - If case assigned downwards: nominative-accusative. If upwards: ergative-absolutive.
  - If both parameters simultaneously present in the same language: *tri-partite* case systems (e.g. Nez Perce, where accusative and ergative can co-occur).
  - If both parameters switched off: no ergative or accusative case marking.
- *Step 3: Unmarked case*
  - The remaining DPs that have not received case by means of competition with another DP, receive the unmarked case.
  - Unmarked case depends on the local domain in which the NP is found (nominative/absolutive in TP/CP, genitive in DP)
- *Default case*
  - Fragment answers and free-standing DPs usually get the default case (“Who bought the bread?” “Him./\*He.”)

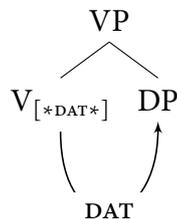
**Problem:**

- DAT can be assigned either in *Step 1*, as lexically governed case, or in *Step 2*, as dependent case.
- If assigned as dependent case, DAT is considered to be assigned to a higher DP in the VP (Baker & Vinokurova 2010; Baker 2015).  
⇒ The case feature on a dative DP can sometimes be supplied by a head and sometimes in a particular configuration in the VP and yet, it is still recognised and realised as the same exponent by the morphology.

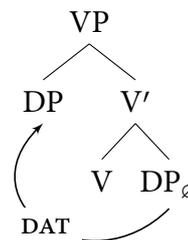
**Proposal:**

- Assignment of dative via a lexical head can be abandoned in DCT.
- DAT can always be treated as dependent case assigned to a higher DP in a VP.
- Instead of assuming that a verb comes with a lexical [*\*DAT\**] case feature (5), we propose that the verb comes with a covert pseudo co-argument DP, which enables the assignment of lexical dative as dependent case to a higher DP in a VP (6).
- Similar proposals have been put forward by Bittner & Hale (1996); Baker (2015) for case assignment in general, Wood (to appear) for lexical accusative case in Icelandic, and Baker & Bobaljik (2015) for inherent ergative case.

(5) Lexical DAT via lexical head



(6) Lexical DAT as dependent case

**2 Structural dative in Serbian**

- The real structural dative is considered to be the one assigned by ditransitive verbs.
- The order of the indirect object (IO) and the direct object (DO) is mostly free in Serbian and both orders can be used in neutral contexts:

- (7) a. Slavica je predstavila sestri Marka.  
Slavica.NOM is presented sister.DAT Marko.ACC  
'Slavica presented Marko to her sister.' **V > DAT > ACC**
- b. Slavica je predstavila Marka sestri.  
Slavica.NOM is presented Marko.ACC sister.DAT  
'Slavica gave a book to Marko.' **V > ACC > DAT**

- There is reason to believe that IO>>DO, i.e. (7a) is the base order of the two objects, while (7b) is derived by A-movement.

- **Quantifier scope:** (Aoun & Li 1989; Frey 1989; Bruening 2001)

- (8) a. Slavica je predstavila [<sub>DAT</sub> jednoj drugarici] [<sub>ACC</sub> svakog momka].  
 Slavica is introduced one.DAT friend.DAT every.ACC boyfriend.ACC  
 ‘Slavica introduced every boyfriend to a friend.’  $\exists > \forall, * \forall > \exists$
- b. Slavica je predstavila [<sub>ACC</sub> svakog momka] [<sub>DAT</sub> jednoj drugarici].  
 Slavica is introduced every.ACC boyfriend.ACC one.DAT friend.DAT  
 ‘Slavica introduced every boyfriend to a friend.’  $\exists > \forall, \forall > \exists$

- The availability of both readings in (8b) indicates the possibility of reconstruction of the DO to its base position below the IO.

- **Focus projection:** (Höhle 1982; von Stechow & Uhmman 1986; Haider 1992)

- Maximal focus projection (from a focused NP to the entire clause) is possible only if we maintain the base word order (Höhle 1982; von Stechow & Uhmman 1986). The order in which movement has occurred should not be a good answer to the question *What happened?/What’s new?*
- Stjepanović (1999:76) offers a similar argument for Serbo-Croatian. With the new information focus, if the whole sentence is new information, focus is perceived as neutral if the sentence has the canonical word order (10a).

(9) What happened?

- (10) a. [ Slavica je poslala Marku PISMO ]  
 Slavica is sent Marko.DAT letter.ACC  
 ‘Slavica sent a letter to Marko.’
- b. #[ Slavica je poslala pismo MARKU ]  
 Slavica is sent letter.ACC Marko.DAT  
 ‘Slavica sent a letter to Marko.’ / ‘It was Marko who Slavica sent a letter to.’

- The focus in (10b) can be interpreted as contrastive, not necessarily new information focus.

- **Clitic ordering:** (Stjepanović 1999; Bošković 2001)

- The order of object clitics is always DAT » ACC, regardless of the order IO and DO NPs.

- Both Stjepanović (1999); Bošković (2001) assume that clitics move outside of their VP into Agr projections. The strict hierarchy between them suggests that this movement respects superiority.

- |   |   |
|---|---|
| <p>(11) a. Ti si poslala Nevenu<br/>         you are sent Neven.DAT<br/>         pismo.<br/>         letter.ACC<br/>         ‘You sent a letter to Neven.’</p> <p>b. Ti si mu ga poslala.<br/>         you are him.DAT it.DAT sent<br/>         ‘You sent it to him.’</p> <p>c. *Ti si ga mu poslala.<br/>         you are it.DAT him.DAT sent<br/>         ‘You sent it to him.’</p> | <p>(12) a. Ti si poslala pismo<br/>         you are sent letter.ACC<br/>         Nevenu.<br/>         Neven.DAT<br/>         ‘You sent a letter to Neven.’</p> <p>b. *Ti si ga mu poslala.<br/>         you are it.DAT him.DAT sent<br/>         ‘You sent it to him.’</p> <p>c. Ti si mu ga poslala.<br/>         you are him.DAT it.DAT sent<br/>         ‘You sent it to him.’</p> |
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### 3 A derivational account of dependent case assignment

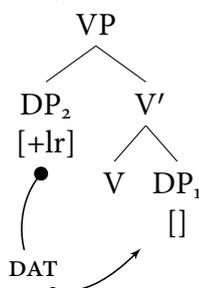
#### 3.1 Main assumptions

- Case is assigned in narrow syntax (Baker & Vinokurova 2010; Baker 2015; Preminger 2014; Levin & Preminger 2015).
- We adopt case feature notations from Lexical Decomposition Grammar, following Kiparsky (1992, 2001); Wunderlich & Joppen (1995); Wunderlich (1997); Stiebels (2002):
  - ACC: [+hr] ‘there is a higher role’
  - DAT: [+hr +lr] ‘there is a higher role and there is a lower role’
  - ERG: [+lr] ‘there is a lower role’
  - NOM/ABS: [ ] no case features
- The features [+hr] and [+lr] are assigned incrementally to argument DPs via the operation Agree.
- By Downward Agree ( $\downarrow\text{AGR}\downarrow$ ), the higher of the two DPs in an asymmetric c-command relation probes down and receives the [+hr] from the lower one, and by Upward Agree ( $\uparrow\text{AGR}\uparrow$ ), the lower DP probes upward and receives its case feature from the higher one.
- One DP can receive more than one case feature.
- An important principle: case valuation cannot take place if the goal DP already has a valued case feature (Bittner & Hale 1996; Baker 2015).
- In a NOM/ACC system,  $\downarrow\text{AGR}\downarrow$  always precedes  $\uparrow\text{AGR}\uparrow$ .
- Ergative switch-off parameter: (in a NOM-ACC language) the higher DP in a  $\nu\text{P}$  cannot be case-valued.<sup>1</sup>

#### 3.2 Deriving the case patterns

- In a double-object construction, a verb takes two objects, yielding thereby a VP with two unmarked DPs in a c-command relationship.
- If  $\downarrow\text{AGR}\downarrow$  applies first, the higher of the two DPs receives a [+lr] feature from the lower one.

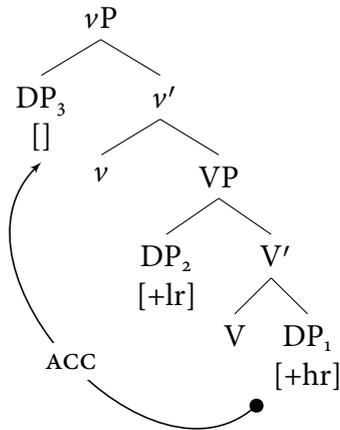
(13) assignment of [+lr] in VP



<sup>1</sup>Alternatively, assuming that at the  $\nu\text{P}$  level  $\uparrow\text{AGR}\uparrow$  precedes  $\downarrow\text{AGR}\downarrow$  yields the same results.

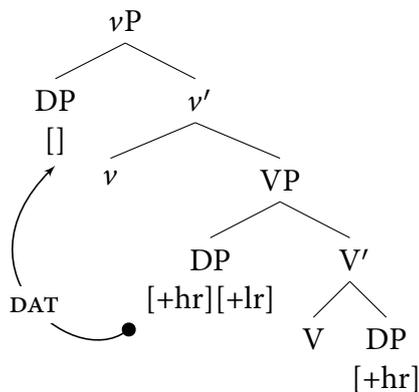
- After the external DP<sub>3</sub> is introduced in Spec-*v*P, we now have three DPs in the *v*P domain. If ↓AGR↓ applies between the highest DP<sub>3</sub> in the Spec*v*P and the lowest DP<sub>1</sub>, no case valuation applies, as DP<sub>3</sub> in Spec *v*P cannot be case valued.
- ↑AGR↑ then applies afterwards, whereby the lower DP gets the [+lr] feature from the higher one.

(14) assignment of [+hr] to the lower argument in VP



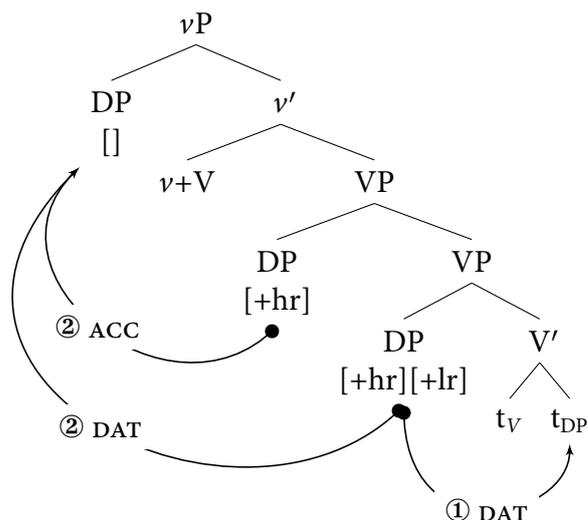
- The middle DP can also carry out ↑AGR↑ with the higher DP, since they are in a c-command relationship, and the higher one is not marked for case:

(15) assignment of [+hr] to higher argument in VP



- This basic mechanism thus derives the assignment of dependent case by means of existing, independently motivated mechanisms, in a derivational manner.
- An interesting prediction: at the point in the derivation before the external argument is merged, dative should behave in a similar way as ergative case, as it only bears a [+lr] feature, as in (13).
- While we leave this point for further research, note that similarities between datives and ergatives have been reported in Basque by Arregi & Nevins (2012), in Indo-Aryan languages by Butt (2006) and even Serbo-Croatian by Progovac (2013).
- Another important prediction is that movement of the DO should not affect ACC case assignment, as shown by (16):

## (16) accusative assignment



## 4 Lexical dative

### 4.1 Similarities between structural and lexical dative

#### 4.1.1 Passives

- In double-object constructions, only the accusative object can be passivised. Only the theme argument can alternate with nominative.

- (17) a. Ljubica je dala Milošu knjigu.  
Ljubica.NOM.FSG is gave.FSG Miloš.DAT book.ACC  
'Ljubica gave a book to Miloš.'
- b. Knjiga je bila data Milošu.  
book.NOM.FSG is been.FSG given.FSG Miloš.DAT  
'The book was given to Miloš.'
- c. Milošu je bila data knjiga.  
Miloš.DAT is been.FSG given.FSG book.NOM.FSG  
'The book was given to Miloš.'

- The dative argument cannot be turned into a subject. It does not alternate with nominative:

- (18) a. \*Miloš je bio dat knjigu.  
Miloš.NOM is been.MSG given.MSG book.ACC  
'Miloš was given a book.'
- b. \*Milošu je bio/bilo dat/dato knjiga.  
Miloš.DAT is been.MSG/been.NSG given.MSG/given.NSG book.NOM  
'Miloš was given a book.'

- Unlike in Icelandic (cf. [Zaenen, Mailing & Thráinsson 1985](#)), dative cannot bind a subject oriented anaphor and cannot be deleted under subject ellipsis, hence it is not a subject:

- (19) a. \*Milošu je bila data svoja knjiga.  
Miloš.DAT is been.FSG given.FSG refl.FSG.NOM book.NOM  
intended: 'Miloš was given his book.'

- b. \*Miloš je bio izbačen sa časa i \_\_\_ bio je  
 Miloš.NOM is been.MSG thrown.out.MSG from class and been.MSG is  
 dat ukor.  
 given.MSG reprimand  
 ‘Miloš was thrown out of the class and he was reprimanded.’

- Lexical datives show similar properties. Some verbs with lexical datives can be pasivised:

- (20) a. Ljubica je pomogla Ani.  
 Ljubica.NOM is helped Ana.DAT  
 ‘Ljubica helped Ana.’  
 b. Ani je bilo pomognuto.  
 Ana.DAT is been.NSG helped.NSG  
 ‘Ana was helped.’

- [Zaenen et al. \(1985\)](#) subjecthood tests show that this dative does not behave like a subject. It does not bind a subject-oriented anaphor (21a) and it cannot be deleted under subject ellipsis (21b).

- (21) a. \*Ani je bilo pomognuto od strane svoje sestre.  
 Ana.DAT is been helped.NSG from side refl.GEN sister.GEN  
 ‘Ana was helped by her sister.’  
 b. \*Ana je uradila sve zadatke i \_\_\_ pri tome je bilo pomognuto.  
 Ana.NOM is done.FSG all tasks.ACC and with that is been.NSG helped.NSG  
 ‘Ana did all the tasks and was helped with that.’

#### 4.1.2 Extraction out of datives

- Left Branch Extraction, otherwise allowed out of subjects (22a) and objects (22b) in Serbian (see [Bošković 2005](#), and subsequent work), is disallowed both with structural and lexical dative.

##### (22) *LBE disallowed out of structural dative*

- a. Kakvi su mu [ t dečaci ] juče kupili poklon?  
 what.NOM are him boys yesterday bought present  
 ‘What boys bought a present for him yesterday?’ LBE with NOM  
 b. Kakav su mu dečaci juče kupili [ t poklon]?  
 what.ACC are him boys yesterday bought present  
 ‘What present did the boys buy for him yesterday?’ LBE with ACC  
 c. \*?Kojoj su dečaci juče [ t drugarici] kupili poklon?  
 what.DAT are boys yesterday friend bought present  
 ‘Which friend did the boys buy the present for?’ LBE with DAT<sub>struc</sub>  
 d. \*Kojoj su dečaci juče kupili poklon [ t drugarici]?  
 what.DAT are boys yesterday bought present friend  
 ‘Which friend did the boys buy the present for?’ LBE with DAT<sub>struc</sub>

##### (23) *LBE disallowed out of lexical dative*

- a. \*?Kojoj su dečaci juče [ t drugarici] pomogli?  
 which.DAT are boys yesterday friend.DAT helped  
 ‘Which friend did tie boys help yesterday?’ LBE with DAT<sub>lex</sub>  
 b. \*Kojoj su dečaci juče pomogli [ t drugarici]?  
 which.DAT are boys yesterday helped friend.DAT  
 ‘Which friend did the boys help yesterday?’ LBE with DAT<sub>lex</sub>

### 4.1.3 Deverbal nominalisations

- As argued by Maling (2001) and shown for German by McFadden (2004), one of the structural asymmetries between DOs and IOs is their behaviour in nominalisations. DOs appear in genitive when the VP is nominalised, unlike both structural and lexical datives, which do not alternate.

(24) *Structural dative*

- Ljubica je poklonila Milošu knjigu.  
Ljubica.NOM is gave Miloš.DAT book.ACC  
'Ljubica gave a book to Miloš.'
- poklanjanje knjige Milošu  
giving book.GEN Miloš.DAT  
'the giving of the book to Miloš'
- poklanjanje Miloša  
giving Miloš.GEN  
'the giving of Miloš (to someone)', \*'the giving (of something) to Miloš'

(25) *Lexical dative*

- Ova kapa pripada Ani.  
this.NOM cap.NOM belongs Ana.DAT  
'This cap belongs to Ana.'
- pripadanje Ani  
belonging Ana.DAT  
'the belonging (of something) to Ana'
- pripadanje Ane  
belonging Ana.GEN  
'the belonging of Ana (to someone)', \*'the belonging to Ana'

### 4.1.4 Topic drop

- As argued for German by Sternefeld (1985); Bayer, Bader & Meng (2001); McFadden (2004), in the so-called 'topic drop' constructions, it is possible to omit the ACC (27a), but not a DAT topic, irrespective of whether it is structural (27b) or lexical (27c).

(26) Da li poznaješ Tamaru?  
that prt know.2.SG Tamara.ACC  
'Do you know Tamara?'

- (27) a. Da, poznajem (je).  
yes know.1.SG (her.ACC)  
'Yes, I know her.'
- b. Da, jednom sam \*(joj) poklonila cvet.  
yes once am her.DAT gave flower  
'Yes, I once gave her a flower.' structural DAT
- c. Da, jednom sam \*(joj) pomogla.  
yes once am her.DAT helped  
'Yes, I helped her once.' lexical DAT

## 4.2 Lexical dative as dependent case

### 4.2.1 Types of lexical dative

- Lexical DAT objects in Serbian can appear in several different constructions.
- We will argue that (28a) patterns with (28b), while (28c) patterns with (28d):

(28)	a.	Ljubica je pomogla Ani. Ljubica.NOM is helped Ana.DAT 'Ljubica helped Ana.'	<i>help-type</i>
	b.	Ana se prilagodila svojim prijateljima. Ana.NOM se adjusted.FSG refl.DAT friends.DAT 'Ana adjusted to her friends.'	<i>adjust-type</i>
	c.	Ova kapa pripada Ani. this.NOM cap.NOM belongs Ana.DAT 'This cap belongs to Ana.'	<i>belong-type</i>
	d.	Ani se sviđa zelena haljina. Ana.DAT se appeals.MSG green.NOM dress.NOM 'Ana likes her new phone.'	<i>like-type</i>

### 4.2.2 Help-type verbs as underlying ditransitives

- *Help-type* verbs include verbs such as *pomoći* 'help', *čestitati* 'congratulate', *ugoditi* 'please', *povlađivati* 'humour', *služiti* 'serve', *verovati* 'believe', *zavideti* 'envy', *doprineti* 'contribute', etc. (a partial list from several types of monotransitive constructions identified by [Stipčević \(2014\)](#)).
- We argue that these verbs are underlyingly ditransitive, where the DP<sub>ACC</sub> is present, but covert.
- In these constructions, the NOM argument is usually an AGENT, while the DAT can have BENEFICIARY/MALEFICIARY/RECIPIENT/GOAL/TARGET PERSON theta-role:

(29)	a.	Ljubica je pomogla Ani. Ljubica.NOM is helped Ana.DAT 'Ljubica helped Ana.'
	b.	Trener je čestitao igračima. coach.NOM is congratulated players.DAT 'The coach congratulated the players.'

- The unmarked word order is NOM > DAT.
- A possibly crucial piece of evidence for postulating a silent DP<sub>ACC</sub>: Even though usually monotransitive, these constructions can have another overt ACC argument:

(30)	a.	Ljubica je pomogla Ani školovanje. Ljubica.NOM is helped Ana.DAT education.ACC 'Ljubica (financially) helped Ana's education.'
	b.	Trener je čestitao igračima pobjedu. coach.NOM is congratulated players.DAT victory.ACC 'The coach congratulated the players on the victory.'

- Note a similar kind of behaviour of lexical datives in German ([McFadden 2004:129](#)):

- (31) a. Er glaubt seinem Bruder.  
 he.NOM believes his.DAT brother.DAT  
 ‘He believes his brother.’  
 b. Er glaubt seinem Bruder die Geschichte.  
 he.NOM believes his.DAT brother.DAT the story.ACC  
 ‘He believes his brother’s story.’

- [McFadden \(2004\)](#) takes this as a piece of evidence that lexical dative assigned by *glauben/helfen*-type verbs in German can be analysed as structural dative.
- *Help*-type constructions with lexical datives in Serbian seem to be able to passivise (forming an impersonal passive construction), recall (20), repeated in (32).

- (32) a. Ljubica je pomogla Ani.  
 Ljubica.NOM is helped Ana.DAT  
 ‘Ljubica helped Ana.’  
 b. Ani je bilo pomognuto.  
 Ana.DAT is been.NSG helped.NSG  
 ‘Ana was helped.’

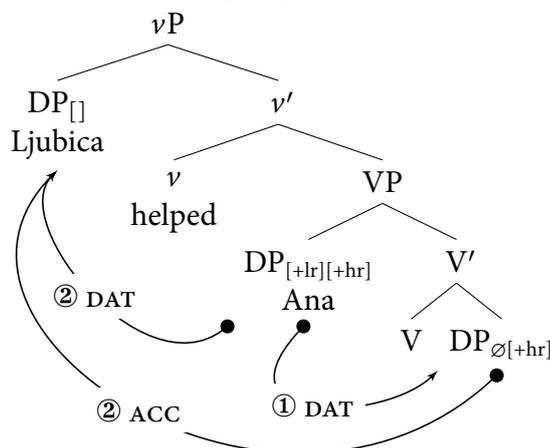
- The evidence above suggests that constructions of this type can be treated as double-object constructions, equivalent to those in (7), allowing for treatment of lexical dative as structural.

### Dative assignment with *help*-type verbs

- Constructions with the *help*-type verbs are in fact double-object constructions.
- The lower ACC object is present as a silent DP (see [Wood to appear](#) for a similar proposal for lexical accusatives in Icelandic and [Baker & Bobaljik 2015](#) for similar ideas for ergative case).
- This silent DP can sometimes be realised overtly, as in (30) above.
- The ‘lexical’ dative is assigned in the same manner as in ditransitive double-object constructions. The feature [+lr] is assigned to the higher DP at the VP level via  $\downarrow\text{AGR}\downarrow$ .
- The assignment of [+hr] applies at  $\nu\text{P}$ , by  $\uparrow\text{AGR}\uparrow$  established with the nominative DP in Spec  $\nu\text{P}$ .

- (33) Ljubica je pomogla Ani.  
 Ljubica.NOM is helped Ana.DAT  
 ‘Ljubica helped Ana.’

- (34) Lexical dative, *help*-type verbs



- These constructions are underlyingly true ditransitives → they should be able to passivize, as confirmed by (32). We can only get an impersonal passive because the THEME argument is null.

#### 4.2.3 An extension: *adjust*-type verbs as underlying ditransitives

- Stipčević (2014:300ff) identifies monotransitive sentences with dative objects where the dative argument mostly has a TARGET PERSON/GOAL theta-role. Some of the verbs that assign this kind of dative include: *odužiti se* ‘pay back’, *osvetiti se* ‘take revenge’, *suprotstaviti se* ‘confront’, *predati se* ‘give in/give up’, *oteti se* ‘escape’, *priključiti se* ‘join’, *prilagoditi se* ‘adjust’, etc.
- Most of these verbs contain the morpheme *se*, which mostly has a reflexive interpretation.

- (35) a. Tamara se prilagodila situaciji.  
 Tamara.NOM se adjusted.FSG situation.DAT  
 ‘Tamara adjusted to the situation.’  
 b. Srđan se predao policiji.  
 Srđan.NOM se surrendered.MSG police.DAT  
 ‘Srđan surrendered to the police.’

- The nominative argument is an AGENT in these sentences and the unmarked order is NOM > DAT.
- Another ACC argument can be added, but then the morpheme *se* cannot appear in the sentence.

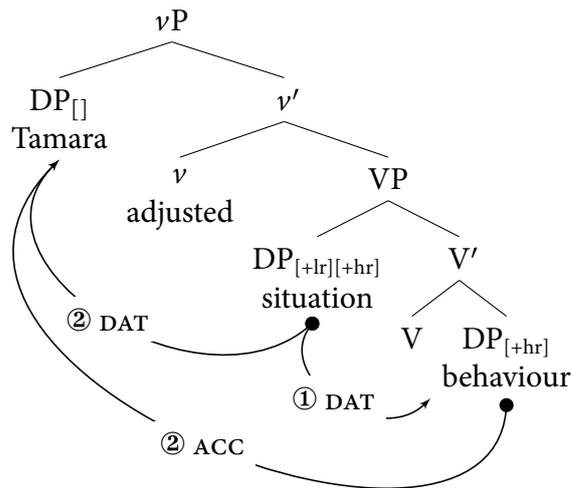
- (36) a. Tamara je (\*se) prilagodila ponašanje situaciji.  
 Tamara.NOM is adjusted.FSG behaviour.ACC situation.DAT  
 ‘Tamara adjusted her behaviour to the situation.’  
 b. Srđan je (\*se) predao dokumente policiji.  
 Srđan.NOM is submitted.MSG documents.ACC police.DAT  
 ‘Srđan submitted the documents to the police.’

- Comparing (35a,b) with (36a,b) respectively, we can see that *se* and ACC seem to be in complementary distribution.
- *Se* seems to absorb ACC case (cf. Franks 1995).
- Passivisation test is inconclusive. Sentences with an overt accusative can be passivized regularly (37a), but the ones without the overt ACC argument and with the *se* morpheme cannot be (37b).

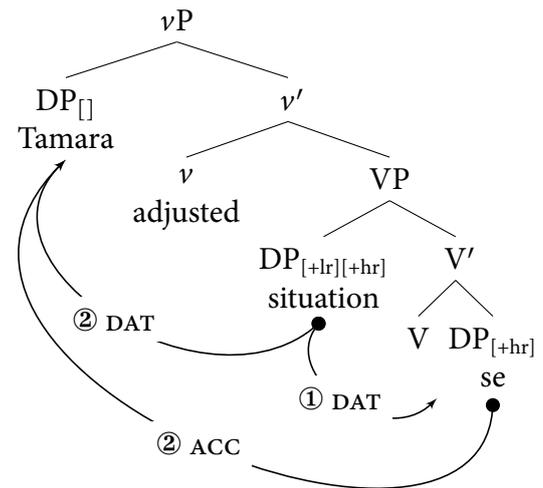
- (37) a. Ponašanje je bilo prilagođeno situaciji.  
 behaviour.NOM.NSG is been adjusted.NSG situation.DAT  
 ‘The behaviour was adjusted to the situation.’  
 b. \*Situaciji se/je bilo prilagođeno.  
 situation.DAT se/is been.NSG adjusted.NSG  
 ‘\*It was adjusted to the situation.’  
 c. Situaciji se prilagodilo.  
 situation.DAT se adjusted.NSG  
 ‘One adjusted to the situation.’

- As (37c) shows, the only possible ‘passive’ form with these constructions is actually impersonal middle construction, which is expected if these constructions even in the active voice already involve argument reduction (see Progovac 2013; Marelj 2004).
- The similarities between (36) and (35) above can be captured by the following derivations:

(38) Structural dative (36)



(39) Lexical dative (35)



- Crucially, the [+lr] feature is assigned to the higher of the two DPs in the VP.
- In (38) with overt direct object, the lower DP receives the [+hr] feature and thereby ACC case upon merging the external argument.
- In (39), the lower DP argument in VP is reduced (or it starts out as a null DP) and gets realised by *se*.

#### 4.2.4 *Belong*-type verbs as unaccusative ditransitives

- *Belong*-type verbs include verbs such as *pripadati* ‘belong’, *zapasti* ‘get into/end up with’, *nedostajati* ‘miss’, etc. (see also [Stipčević 2014](#)).
- We argue that these verbs are underlyingly ditransitive as well, but they do not take an external argument and are, therefore, unaccusative.
- The NOM argument is usually a THEME, while DAT is usually interpreted as POSSESSOR.

(40) Ova kapa pripada Ani.  
 this.NOM cap.NOM belongs Ana.DAT  
 ‘This cap belongs to Ana.’

- The unmarked word order is NOM > DAT.
- No additional overt accusative arguments can be added.
- A structure like this cannot be passivised:

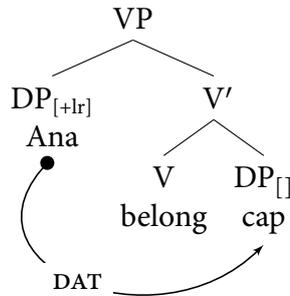
(41) \*Ani je bilo pripadano.  
 Ana.DAT is beel.NSG belonged.DAT  
 \*‘It was belonged to Ana.’

- The impossibility of passivization, the lack of overt accusative argument and the theme interpretation of the NOM argument suggest that such constructions are unaccusative.

### Dative assignment with *belong*-type verbs

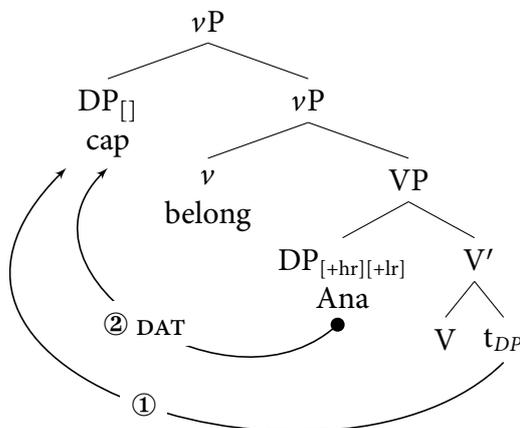
- The two internal arguments of these verbs are both merged as the arguments of V, as in (42).
- In this configuration,  $\downarrow\text{AGR}\downarrow$  applies first and the higher DP receives the [+lr] feature from the lower one.
- The lower DP does not receive any case features at VP level.

(42) Lexical dative at VP



- Since these verbs are unaccusative, no external argument is merged in Spec- $\nu$ P. However, the THEME argument moves up to become the (derived) subject of the sentence.
- In order to move to Spec-TP, it has to move through the  $\nu$ P phase edge (Legate 2003).
- At the  $\nu$ P edge, this DP can now serve as a case competitor again. After  $\downarrow\text{AGR}\downarrow$  fails,  $\uparrow\text{AGR}\uparrow$  succeeds, and [+hr] is assigned to the DAT DP.

(43) Lexical dative at  $\nu$ P



- Treating these constructions as unaccusatives correctly captures the fact that they cannot passivize and that the DP<sub>NOM</sub> is interpreted as a THEME rather than AGENT.

### 4.3 An extension: (*feel*)-like-type verbs as unaccusative ditransitives

- Constructions with the EXPERIENCER-type dative:

(44) Ani se sviđa zelena haljina.  
 Ana.DAT refl appeals green.NOM dress.NOM  
 'Ana likes the green dress.'

- The unmarked word order seems to be DAT > NOM.
- No additional overt accusative arguments can be added to this structure.
- A structure like this cannot be passivised.

(45) \*Ani je bilo svidano.  
 Ana.DAT is been appealed.NSG  
 ‘It was appealed to Ana.’

- The lack of passivization possibility and the overt accusative argument and the theme interpretation of the NOM argument suggest that this could be an unaccusative construction.
- The *se* clitic does not have a reflexive interpretation, but following Progovac (2013), it can be assumed to be an expletive object pronoun.
- Based on the fact that these verbs cannot assign accusative and that the DP<sub>NOM</sub> is ambiguous between subject and object interpretation, Progovac (2013) argues that the structures like these are in fact instances of an ergative-absolutive pattern in a language like Serbian.
- Such sentences would be analysed as in (42) and (43) above.
- The [+lr] feature is assigned at the VP level via ↓AGR↓, while the [+hr] feature is assigned at the νP level via ↑AGR↑.
- We leave the exact nature of the clitic *se* in these constructions for future research, which should be able to tell whether it is an additional silent argument that absorbs certain case features, or whether it is an expletive, or perhaps incorporated in the verb.

## 5 Conclusion

- Dependent case assignment can be formalised by means of a derivational approach, where case features are assigned incrementally, via Agree operation that holds between two DPs.
- DAT is assigned as high dependent case in the VP, while ACC is the low dependent case in the νP.
- We have seen evidence from Serbian that the account of structural DAT can be extended to cover the assignment of lexical DAT. Lexical dative is thus assigned in the same configurations:
  - in a ditransitive double-object construction with a silent DP as DO and a case competitor
  - in a double object construction involving an unaccusative verb
- Dependent Case Theory can capture assignment of lexical dative case as dependent case.
- Future work will explore how the account extends to other cases which have been noted to have both structural and lexical properties, such as GEN, INST, and even ACC.

## References

- Aoun, Joseph & Yen-Hui Audrey Li (1989): 'Scope and constituency', *Linguistic Inquiry* 20(2), 141–172.
- Arregi, Karlos & Andrew Nevins (2012): *Morphotactics: Basque auxiliaries and the structure of spellout*. Springer Science & Business Media.
- Baker, Mark C. (2012): 'On the relationship of object agreement and accusative case: evidence from Amharic', *Linguistic Inquiry* 43, 255–274.
- Baker, Mark C. (2015): *Case: Its principles and its parameters*. Cambridge University Press, Cambridge, UK.
- Baker, Mark C. & Nadya Vinokurova (2010): 'Two modalities of Case assignment: Case in Sakha', *Natural Language and Linguistic Theory* 28, 593–642.
- Baker, Mark & Jonathan Bobaljik (2015): On inherent and dependent theories of ergative case. In: J. Coon, D. Massam & L. Travis, eds, (to appear in) *Handbook of Ergativity*. Oxford University Press.
- Bayer, Josef, Markus Bader & Michael Meng (2001): 'Morphological underspecification meets oblique case: syntactic and processing effects in German', *Lingua* 111, 465–514.
- Bittner, Maria & Ken Hale (1996): 'The structural determination of case and agreement', *Linguistic Inquiry* 27, 1–68.
- Bošković, Željko (2001): *On the Nature of Syntax-Phonology Interface: Cliticization and Related Phenomena*. Elsevier, Amsterdam.
- Bošković, Željko (2005): 'On the locality of Left Branch Extraction and the structure of NP', *Studia Linguistica* 59, 1–45.
- Bruening, Benjamin (2001): 'QR Obeys Superiority: Frozen scope and ACD', *Linguistic Inquiry* 32(2), 233–273.
- Butt, Miriam (2006): The Dative-Ergative Connection. In: P. Cabredo-Hofherr & O. Bonami, eds, *Empirical Issues in Formal Syntax and Semantics 10*. Thesus, The Hague, pp. 69–92.
- Franks, Steven (1995): *Parameters of Slavic Morphosyntax*. Oxford University Press, New York, Oxford.
- Frey, Werner (1989): Syntaktische Bedingungen für die Interpretation. PhD thesis, Universität Stuttgart.
- Haider, Hubert (1992): Branching and discharge. Ms. Universität Stuttgart.
- Höhle, Tilman (1982): Explikationen für 'normale Betonung' und 'normale Wortstellung'. In: W. Abraham, ed., *Satzglieder im Deutschen*. Narr, Tübingen, pp. 75–153.
- Kiparsky, Paul (1992): Structural case. Berlin: Institute for Advanced Study.
- Kiparsky, Paul (2001): 'Structural case in Finnish', *Lingua* 111, 315–376.
- Legate, Julie Anne (2003): 'Some interface properties of the phase', *Linguistic Inquiry* 34(3), 506–515.
- Levin, Ted & Omer Preminger (2015): 'Case in Sakha: Are two modalities really necessary?', *Natural Language and Linguistic Theory* 33(1), 231–250.
- Maling, Joan (2001): 'Dative: The heterogeneity of the mapping among morphological case, grammatical functions, and thematic roles', *Lingua* 111, 419–464.
- Marantz, Alec (1991): Case and licensing. In: G. Westphal, B. Ao & H.-R. Chae, eds, *Proceedings of the 8th Eastern States Conference on Linguistics (ESCOL 8)*. CLC Publications, Ithaca, NY, pp. 234–253.
- Marelj, Marijana (2004): Middles and Argument Structure across Languages. PhD thesis, Utrecht University.
- McFadden, Thomas (2004): The position of morphological case in the derivation: A study on the syntax-morphology interface. PhD thesis, University of Pennsylvania, Philadelphia.
- Preminger, Omer (2014): *Agreement and its Failures*. MIT Press, Cambridge, MA.
- Progovac, Ljiljana (2013): Rigid Syntax, Rigid Sense: Absolutes/Unaccusatives as Evolutionary Precursors. In: *Proceedings of FASL (Formal Approaches to Slavic Linguistics), The Third Indiana Meeting 2012*. Ann Arbor: Michigan Slavic Publications, Bloomington, Indiana, pp. 246–259.
- Sternefeld, Wolfgang (1985): 'Deutsch ohne grammatische Funktionen', *Linguistische Berichte* 99, 394–439.
- Stiebels, Barbara (2002): *Typologie des Argumentlinkings: Ökonomie und Expressivität*. Vol. 54 of *Studia Grammatica*, Akademie Verlag, Berlin.
- Stipčević, Balša (2014): Dativne rekcijske konstrukcije s neprelaznim glagolima u savremenom srpskom jeziku [Intransitive verb constructions with dative complement in the modern Serbian language]. PhD thesis, University of Belgrade, Belgrade.
- Stjepanović, Sandra (1999): What do second position cliticisation, scrambling and multiple wh-fronting have in common?. PhD thesis, University of Connecticut.
- von Stechow, Arnim & Susanne Uhmann (1986): Some remarks on focus projection. In: W. Abraham & S. de Meij, eds, *Topic, Focus and Configurationality*. Benjamins, Amsterdam, pp. 295–320.
- Wood, Jim (to appear): 'The accusative subject generalization', *Syntax*.
- Wunderlich, Dieter (1997): 'Case and the structure of verbs', *Linguistic Inquiry* 28(27–68).
- Wunderlich, Dieter & Sandra Joppen (1995): 'Argument linking in Basque', *Lingua* 97, 123–169.
- Yip, Moira, Joan Maling & Ray Jackendoff (1987): 'Case in tiers', *Language* 63, 217–250.
- Zaenen, Annie, Joan Maling & Höskuldur Thráinsson (1985): 'Case and grammatical functions: The Icelandic passive', *Natural Language and Linguistic Theory* 3, 441–483.