

## Chapter 16

# Unifying structural and lexical case assignment in Dependent Case Theory

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Dependent Case Theory argues against case assignment via a functional head (cf. Chomsky 2000; 2001) and proposes instead that case is a result of a structural relation between two DPs (Marantz 1991; McFadden 2004; Baker & Vinokurova 2010; Baker 2015). However, Dependent Case Theory cannot completely abandon case assignment via a syntactic head, as this mechanism accounts for lexical case (e.g. lexical dative). Furthermore, structural and lexical datives are morphologically identical and often behave similarly, and ‘just where the line should be drawn between the two is a theoretical matter’ (Baker 2015: 13). We argue for a unified approach to lexical and structural dative case assignment under Dependent Case Theory, 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.

**Keywords:** dependent case, Agree, dative

## 1 Introduction: Dependent Case Theory

The Dependent Case Theory (henceforth DCT) is a result of the work of (Marantz 1991; McFadden 2004; Baker & Vinokurova 2010; Baker 2012; 2015), among others, adopting similar ideas by Yip et al. (1987); Bittner & Hale (1996); Kiparsky (1992; 2001); Wunderlich (1997); Stiebels (2002). Case assignment in DCT relies



primarily on Marantz's (1991: 24) disjunctive case hierarchy, which distinguishes between the following types of case:

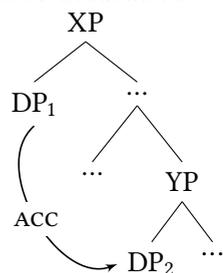
- (1) Lexically governed case > Dependent case (accusative and ergative) > Unmarked case (nominative and absolutive) > Default case

There are several steps in the case assigning process. In Step 1 all DPs selected by lexical items (verbs, prepositions, etc.) which idiosyncratically assign a particular case, receive the *LEXICALLY GOVERNED CASE* value from the designated head upon c-selection. In Step 2, 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:

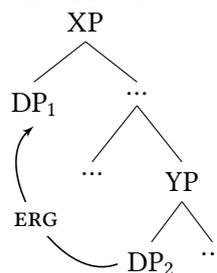
- (2) **Rules for dependent case assignment** (Baker 2015: 48-49)
  - a. If there are two distinct DPs in the same spell out domain such that  $DP_1$  c-commands  $DP_2$ , then value the case feature of  $DP_2$  as accusative unless  $DP_1$  has already been marked for case (3).
  - b. If there are two distinct DPs in the same spell out domain such that  $DP_1$  c-commands  $DP_2$ , then value the case feature of  $DP_1$  as ergative unless  $DP_2$  has already been marked for case (4).

These rules lead to a four-way typology of case alignments (Levin & Preminger 2015): The application of only the rule (2a) will lead to nominative-accusative alignment (3), while (2b) will yield ergative-absolutive alignment (4). If both parameters are simultaneously present in the same language, this would yield tripartite case systems (e.g. Nez Perce, where accusative and ergative can co-occur, see Baker 2015) and if both parameters are switched off, the language has neither ergative nor accusative case marking.

(3) **Nominative-accusative**



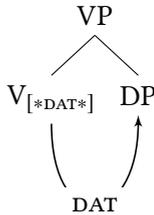
(4) **Ergative-absolutive**



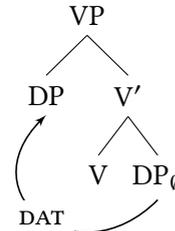
In Step 3, the remaining DPs that have not received case by means of competition with another DP, receive the UNMARKED CASE, which depends on the local domain in which the NP is found (nominative/absolutive in TP/CP, genitive in DP). Finally, DEFAULT CASE is assigned to fragment answers and free-standing DPs (*Who bought the bread? Him./\*He.*).

One of the evident problems for DCT is that 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), which means that the case feature on a dative DP can sometimes be supplied by a lexical head and sometimes in a particular configuration in the VP and even though this feature has two completely different sources in the syntax, it is still recognised and realised as the same exponent by the morphology. We propose instead that assignment of dative via a lexical head can be abandoned in DCT. We claim that DAT can always be treated as dependent case assigned to a higher DP in a VP. In line with proposals by Bittner & Hale (1996); Baker (2015) (for case assignment in general), Wood (2017) (for lexical accusative case in Icelandic), and Baker & Bobaljik (2017) (for inherent ergative case), 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).

## (5) Lexical DAT via lexical head



## (6) Lexical DAT as dependent case



Furthermore, there is an ongoing debate within the DCT on the timing of case assignment. While some authors want case assignment to be a syntactic process (see Preminger 2014 and Baker 2015, who times case assignment at Spell-Out, during linearization), others argue that dependent case is assigned at PF (Marantz 1991; McFadden 2004; Bobaljik 2008). In what follows, we will take the syntactic side of the debate and offer a derivational implementation via the operation Agree between two DPs, which will derive dependent case assignment as a narrow syntactic process, and explain the dative puzzle outlined above.

## 2 Structural dative in Serbian

In order to derive the assignment of structural dative case in double object constructions, this section offers a short empirical introduction on the structural relations between NOM, ACC and DAT arguments in BCS. 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.’  $V > \text{DAT} > \text{ACC}$
- b. Slavica je predstavila Marka sestri.  
 Slavica.NOM is presented Marko.ACC sister.DAT  
 ‘Slavica presented Marko to her sister.’  $V > \text{ACC} > \text{DAT}$

However, 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. The evidence from quantifier scope (Aoun & Li 1989; Frey 1989; Bruening 2001) shows that, while in the  $V > \text{DAT} > \text{ACC}$  order only the reading where the quantifier in the IO scopes over the one in the DO is available (8a), the order  $V > \text{ACC} > \text{DAT}$  allows for both readings (8b). The availability of the reading where the existential quantifier outscopes the universal one in (8b) indicates that the DO can reconstruct in its base position, below the IO.

- (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.’  $\exists > \forall, \forall > \exists$

Furthermore, maximal focus projection (from a focused NP to the entire clause) is possible only if we maintain the base word order (Höhle 2018; von Stechow & Uhlmann 1986; Haider 1992). A sentence in which movement has occurred should not be a good answer to the question *What happened?/What’s new?*<sup>1</sup> With the

<sup>1</sup>Stjepanović (1999: 76) offers a similar argument for Serbo-Croatian.

focus on the DO, if the whole sentence is new information, focus is perceived as neutral if the sentence has the canonical word order (9a). However, the focus in (9b) is not necessarily new information focus, as it does not project to the entire clause; it can be interpreted as contrastive, which indicates that the order is not the base one and movement has taken place.<sup>2</sup>

- (9) ‘What happened?’
- 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.’

Finally, the order of object clitics in Serbian is always DAT > ACC, regardless of the order IO and DO noun phrases. Stjepanović (1999) and Bošković (2001) assume that clitics move outside of their VP into Agr projections. The strict hierarchy between them suggests that this movement respects superiority.

- (10) a. Ti si poslala Nevenu pismo.  
 you are sent Neven.DAT letter.ACC  
 ‘You sent a letter to Neven.’
- b. Ti si **mu** **ga** poslala.  
 you are him.DAT it.ACC sent  
 ‘You sent it to him.’
- c. \*Ti si **ga** **mu** poslala.  
 you are it.ACC him.DAT sent  
 ‘You sent it to him.’
- (11) a. Ti si poslala pismo Nevenu.  
 you are sent letter.ACC Neven.DAT  
 ‘You sent a letter to Neven.’
- b. \*Ti si **ga** **mu** poslala.  
 you are it.ACC him.DAT sent  
 ‘You sent it to him.’

<sup>2</sup>Even though the word order in (9b) is neutral, as noted in (7b), if the DAT argument is focused, the sentence sounds less neutral than its counterpart in (9a). We thank an anonymous reviewer for this insight. Moreover, factors such as animacy and givenness may contribute to enabling other orders in neutral contexts; see recent findings by Titov (2017) for Russian and Velnić (2017) for Croatian.

- c. Ti si **mu** ga poslala.  
you are him.DAT it.ACC sent  
'You sent it to him.'

We conclude from these tests that the base word order of objects in Serbian is IO > DO.

### 3 A derivational account of dependent case assignment

Following Baker & Vinokurova (2010); Baker (2015); Preminger (2014); Levin & Preminger (2015), we assume that case is assigned in narrow syntax. We adopt case feature notations from Lexical Decomposition Grammar, following Kiparsky (1992; 2001); Joppen & Wunderlich (1995); Wunderlich (1997); Stiebels (2002):

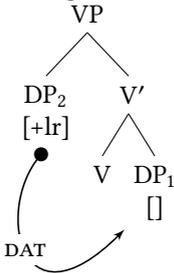
- (12) a. ACC: [+hr] 'there is a higher role'  
b. DAT: [+hr +lr] 'there is a higher role and there is a lower role'  
c. ERG: [+lr] 'there is a lower role'  
d. NOM/ABS: [ ] no case features

The features [+hr] and [+lr] are assigned in the course of the derivation to argument DPs via the operation Agree. We assume that both standard 'downward' Agree and 'upward' Agree (see Chomsky 1986; 1991; Kayne 1989; Pollock 1989; Koopman 2006) are possible options in the grammar (see also Abels 2012: 92f. as well as Baker's 2008: 155 *Direction of Agreement Parameter*). We propose that Agree applies between two DPs in a c-command relationship. When Downward Agree ( $\downarrow\text{AGR}\downarrow$ ) applies, the higher of the two DPs in an asymmetric c-command relation probes down and receives the [+lr] from the lower one (see (13) below), and by Upward Agree ( $\uparrow\text{AGR}\uparrow$ ), the lower DP probes upward and receives its [+hr] case feature from the higher DP (see (14) below). An important principle is that case valuation cannot take place if the *goal DP* already has a valued case feature (Bittner & Hale 1996; Baker 2015). One DP can participate in multiple Agree operations as a *probe* and, in principle, this can result in a DP receiving more than one case feature, as demonstrated shortly below (15). Moreover, in a NOM/ACC system,  $\downarrow\text{AGR}\downarrow$  always precedes  $\uparrow\text{AGR}\uparrow$ . Finally, in a nominative-accusative alignment, assignment of [+lr] in Spec $\nu$ P must somehow be pre-empted, otherwise the DP would receive ergative case. We assume that languages with nominative-accusative alignment have an *ergative switch-off parameter*, regulated by the following principle: In a NOM-ACC language the higher DP in a  $\nu$ P cannot be case-

valued.<sup>3</sup> Finally, we assume that the domain in which the proposed operations apply is the TP.

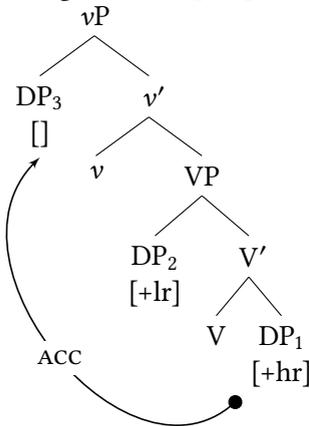
Let us apply the system to dative case assignment. In a double-object construction, a verb selects two objects, yielding thereby a VP with two unmarked DPs in a c-command relationship. Since this is a NOM-ACC system,  $\downarrow\text{AGR}\downarrow$  will always precede  $\uparrow\text{AGR}\uparrow$ . Thus when  $\downarrow\text{AGR}\downarrow$  applies, the higher of the two DPs receives a [+lr] feature from the lower one. Consequently,  $\uparrow\text{AGR}\uparrow$  does not apply because the potential goal is already case-valued.

(13) **Assignment of [+lr] in VP**



After the external DP<sub>3</sub> is introduced in Spec $\nu$ P, we now have three DPs in the same domain. The remaining two caseless DPs are DP<sub>1</sub> and DP<sub>3</sub>. When  $\downarrow\text{AGR}\downarrow$  applies between the highest DP<sub>3</sub> in the Spec $\nu$ P and the lowest DP<sub>1</sub>, no case valuation obtains, due to the ergative switch-off parameter, which demands that a DP in Spec $\nu$ P cannot be case valued.  $\uparrow\text{AGR}\uparrow$  thus applies afterwards, whereby the lower DP receives the [+hr] feature from the higher one (14).

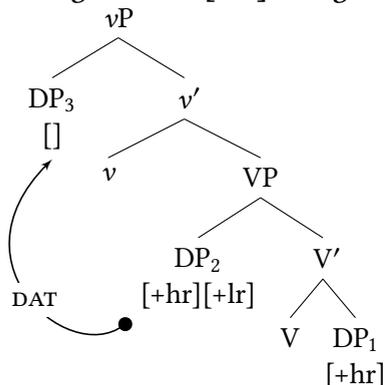
(14) **Assignment of [+hr] to the lower argument in VP**



<sup>3</sup>Alternatively, assuming that at the  $\nu$ P level  $\uparrow\text{AGR}\uparrow$  precedes  $\downarrow\text{AGR}\downarrow$  yields the same results.

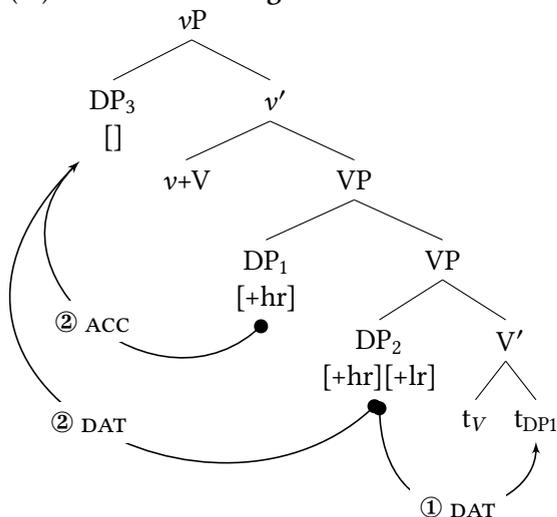
However, DP<sub>2</sub> and DP<sub>3</sub> still fulfil the criteria for case assignment to apply, since they are in a c-command relationship, and the higher one is not marked for case (15). Thus  $\uparrow\text{AGR}\uparrow$  applies, providing the lower DP<sub>2</sub> with a [+hr] feature (and the [[+hr], [+lr]] bundle is realised as dative).

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



This implementation derives the assignment of dependent case by means of existing, independently motivated mechanisms, in a derivational manner. An interesting prediction is that at the point in the derivation before the external argument

(16) Accusative assignment



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, since [+hr] feature still has the necessary configuration even after movement, as shown by (16). In this process, DP<sub>2</sub> is first assigned the [+lr] feature by ↓AGR↓ with DP<sub>1</sub>, which is then moved, and still caseless. After DP<sub>3</sub> has been introduced, both DP<sub>1</sub> and DP<sub>2</sub> will receive their missing [+hr] features by ↑AGR↑ with it.

## 4 Lexical dative

### 4.1 Similarities between structural and lexical dative

As noted in the introduction, the central claim of this paper is that lexical dative case is assigned just like the structural dative. In order to support this claim, we first demonstrate that there are indeed similarities between ‘structural’ and ‘lexical’ datives in their syntactic behaviour.

For instance, they act in a similar way in passivisation. In double-object constructions, only the accusative object can be passivised, i.e. only the theme argument can alternate between accusative and nominative, as in (17).

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

The dative argument, however, cannot be turned into a subject and it never alternates (18).

- (18) a. \* Miloš        je bio        dat        knjigu.  
          Miloš.NOM is been.SG.M given.SG.M book.ACC  
          ‘Miloš was given a book.’

- b. \* Milošu je {bio / bilo} {dat / dato}  
 Miloš.DAT is been.SG.M been.SG.N given.SG.M given.SG.N  
 knjiga.  
 book.NOM  
 ‘Miloš was given a book.’

Unlike in Icelandic (as described by Zaenen et al. 1985), dative cannot bind a subject oriented anaphor (19a) and it cannot be deleted under subject ellipsis (19b), hence it is not a subject.

- (19) a. \* Milošu je bila data svoja knjiga.  
 Miloš.DAT is been.SG.F given.SG.F POSS.SG.F.NOM book.NOM  
 Intended: ‘Miloš was given his book.’  
 b. \* Miloš je bio izbačen sa časa i \_\_\_\_  
 Miloš.NOM is been.SG.M thrown.out.SG.M from class and  
 bio je dat ukor.  
 been.SG.M is given.SG.M reprimand  
 intended: ‘Miloš was thrown out of the class and he was  
 reprimanded.’

Parallel to (17) above, some constructions with lexical datives can be pasivised, as in (20), where the lexical dative in (20b) mirrors the structural one from (17c).

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

However, Zaenen et al. (1985) subjecthood tests also 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), just like the structural dative in (19).

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

Moreover, 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 (22b), unlike both structural (22c) and lexical datives (23), which do not alternate with genitive.<sup>4</sup>

(22) **Structural dative**

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

(23) **Lexical dative**

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

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<sup>4</sup>A reviewer wonders about the status of *darivanje Miloša* 'the giving of something to Miloš.GEN' in (22c). We believe that here the genitive of the complement of *darivati* is lexical. We leave it to future research to explore how lexical genitive fits into the current proposal.

Finally, as argued for German by Sternefeld (1985); Bayer et al. (2001); McFadden (2004), in the so-called ‘topic drop’ constructions, it is possible to omit the ACC (25a), but not a DAT topic, irrespective of whether it is structural (25b) or lexical (25c).

- (24) Da li poznaješ Tamaru?  
 that PRT know.2.SG Tamara.ACC  
 ‘Do you know Tamara?’
- (25) 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

From these similarities, we conclude that lexical and structural datives can be treated as the same type of syntactic objects.<sup>5</sup> In the next sections, we will inspect different types of lexical datives we have identified in Serbian in turn.

<sup>5</sup>An additional language specific test that points into the same direction is Left Branch Extraction, which is allowed out of subjects (i.a) and objects (i.b) in Serbian (see Bošković 2005, and subsequent work), but seems to be disallowed both with structural (i.c) and lexical dative (i.d).

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

However, the acceptability of the examples varies across different speakers, and it can be also influenced by factors such as word order. We leave this very interesting issue for future research.

## 4.2 Lexical dative as dependent case

### 4.2.1 *Help*-type verbs as underlying ditransitives

*Help*-type verbs include verbs such as *pomoći* ‘help’, *čestitati* ‘congratulate’, *ugoditi* ‘please’, *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, yet even as such, it serves as a competitor for dative case assignment. In these constructions, the NOM argument is usually an AGENT, while the DAT can have BENEFICIARY/MALEFICIARY/RECIPIENT/GOAL/TARGET PERSON theta-role. The unmarked word order of arguments of *help*-type verbs is NOM > DAT (26).

- (26) a. Ljubica je pomogla svom detetu.  
 Ljubica.NOM is helped POSS.DAT child.DAT  
 ‘Ljubica helped her child.’
- b. Trener je čestitao svojim igračima.  
 coach.NOM is congratulated POSS.DAT players.DAT  
 ‘The coach congratulated his players.’

A possibly crucial piece of evidence for postulating a silent DP<sub>ACC</sub> is that even though usually monotransitive, these constructions can have another *overt* ACC argument:<sup>6</sup>

- (27) a. Ljubica je pomogla svom detetu školovanje.  
 Ljubica.NOM is helped POSS.DAT child.DAT education.ACC  
 ‘Ljubica sponsored her child’s education.’

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<sup>6</sup>Note a similar kind of behaviour of lexical datives in German invoked by (McFadden 2004: 129). He takes this as a piece of evidence that lexical dative assigned by *glauben/helfen*-type verbs in German can be analysed as structural dative.

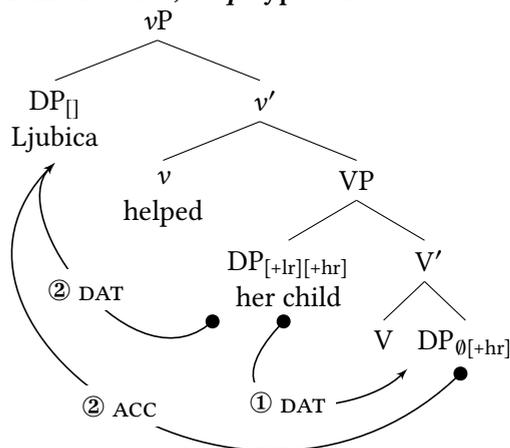
- (i) a. Er glaubt seinem Bruder.  
 he.NOM believes POSS.DAT brother.DAT  
 ‘He believes his brother.’
- b. Er glaubt seinem Bruder die Geschichte.  
 he.NOM believes POSS.DAT brother.DAT the story.ACC  
 ‘He believes his brother’s story.’

- b. Trener je čestitao svojim igračima pobjedu.  
 coach.NOM is congratulated POSS.DAT players.DAT victory.ACC  
 ‘The coach congratulated his players on the victory.’

*Help*-type constructions with lexical datives in Serbian seem to be able to passivise (forming an impersonal passive construction; recall (20)). Such evidence 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.

We therefore argue that constructions with the *help*-type verbs are in fact double-object constructions. The lower ACC object is present as a silent DP (see Wood 2017 for a similar proposal for lexical accusatives in Icelandic and Baker & Bobaljik 2017 for similar ideas for ergative case). This silent DP can sometimes be realised overtly, as in (27) 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  $v\text{P}$ , by  $\uparrow\text{AGR}\uparrow$ , which is established with the nominative DP in  $\text{Spec}v\text{P}$ .

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



These constructions are therefore underlyingly true ditransitives, which explains their striking similarities to regular canonical ditransitive constructions and the similarities in the syntactic behaviour between the datives in the two.

4.2.2 An extension: *Adjust*-type verbs as underlying ditransitives

Another type of verbs identified by Stipčević (2014: 300f.) select for dative objects where the dative argument mostly has a TARGET PERSON/GOAL theta-role.

Some of the verbs 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. The nominative argument is usually an AGENT in these sentences and the unmarked order is NOM > DAT (29).

- (29) a. Tamara se prilagodila situaciji.  
 Tamara.NOM REFL adjusted.SG.F situation.DAT  
 ‘Tamara adjusted to the situation.’  
 b. Srdjan se predao policiji.  
 Srdjan.NOM REFL surrendered.SG.M police.DAT  
 ‘Srdjan surrendered to the police.’

Another overt ACC argument can be added, but in that case the morpheme *se* cannot appear in the sentence. Comparing (29a)/(29b) with (30a)/(30b) respectively, we can see that *se* and ACC seem to be in complementary distribution. *Se* therefore seems to absorb ACC case (see also Franks 1995).<sup>7</sup>

- (30) a. Tamara je (\*se) prilagodila ponašanje situaciji.  
 Tamara.NOM is REFL adjusted.SG.F behaviour.ACC situation.DAT  
 ‘Tamara adjusted her behaviour to the situation.’  
 b. Srdjan je (\*se) predao dokumente policiji.  
 Srdjan.NOM is REFL submitted.SG.M documents.ACC police.DAT  
 ‘Srdjan submitted the documents to the police.’

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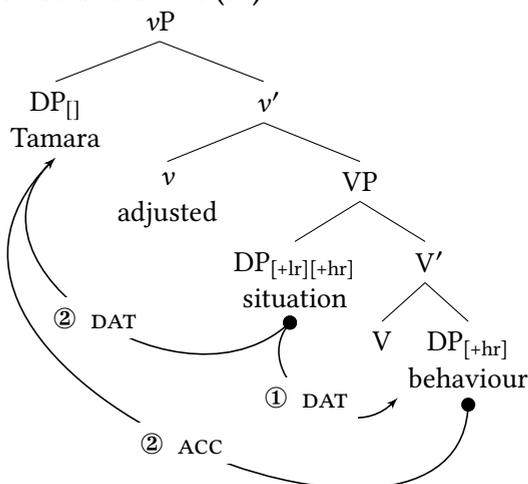
<sup>7</sup>Passivisation is unfortunately inconclusive as a test. Sentences with an overt accusative can be passivized regularly (i.a), but the ones without the overt ACC argument and with the *se* morpheme cannot be (i.b).

- (i) a. Ponašanje je bilo prilagodjeno situaciji.  
 behaviour.NOM.SG.N is been adjusted.SG.N situation.DAT  
 ‘The behaviour was adjusted to the situation.’  
 b. \*Situaciji se / je bilo prilagodjeno.  
 situation.DAT REFL is been.SG.N adjusted.SG.N  
 intended: ‘One adjusted to the situation.’  
 c. Situaciji se prilagodilo.  
 situation.DAT REFL adjusted.SG.N  
 ‘One adjusted to the situation.’

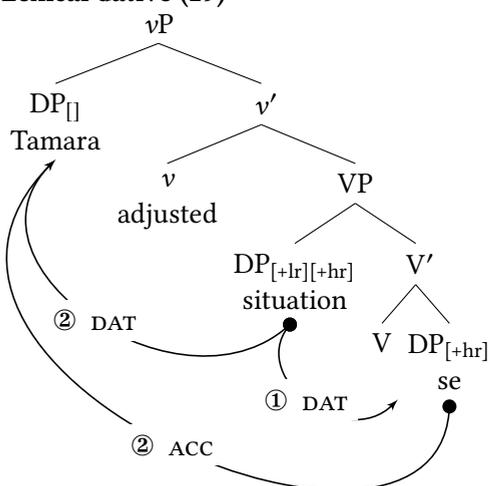
As (i.c) shows, the only possible ‘passive’ form with these constructions is actually impersonal middle construction, which is expected if these constructions even in the active voice already involve argument reduction (see Progovac 2013; Marelj 2004).

The similarities between (30) and (29) above can be captured by the derivations in (31) and (32). While verbs with ‘structural’ dative contain an overt DP as a DO, *adjust*-type verbs contain a silent DP. Crucially, the [+lr] feature is assigned to the higher of the two DPs in the VP. While in (31) the lower DP receives the [+hr] feature and thereby ACC case upon merging the external argument, in (32), the lower DP argument in the VP is reduced (or alternatively it starts out as a null DP) and becomes realised by *se*.

(31) Structural dative (30)



(32) Lexical dative (29)



4.2.3 *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. The unmarked word order is NOM > DAT, as illustrated by (33).

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

No additional overt accusative arguments can be added to these verbs and a structure like this cannot be passivised (34). The impossibility of passivization, the lack of overt accusative argument and the theme interpretation of the NOM argument suggest therefore that such constructions are essentially unaccusative. The idea that the NOM argument is introduced as the internal argument of the verb, which is later moved to the sentence-initial position, can be supported by evidence from quantifier scope. In (35), the possibility for the existential quantifier to outscope the universal one indicates that the NOM argument has been moved and is able to reconstruct in its base position.<sup>8</sup>

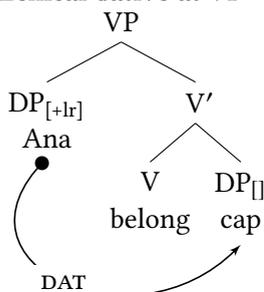
- (34) \* Ani je bilo pripadano.  
 Ana.DAT is been.SG.N belonged.DAT  
 \*‘It was belonged to Ana.’
- (35) [<sub>ACC</sub> Svaka kapa] pripada [<sub>DAT</sub> jednoj devojci].  
 every.NOM cap.NOM belongs one.DAT girl.DAT  
 ‘Every cap belongs to one girl.’  $\exists > \forall, \forall > \exists$

In order to derive this type of lexical dative as dependent case, we assume that the two internal arguments of these verbs are both merged as the arguments of V, as in (36). 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 the VP level. Since these verbs are unaccusative, no external argument is merged in SpecvP. However, the THEME argument must move up in order to

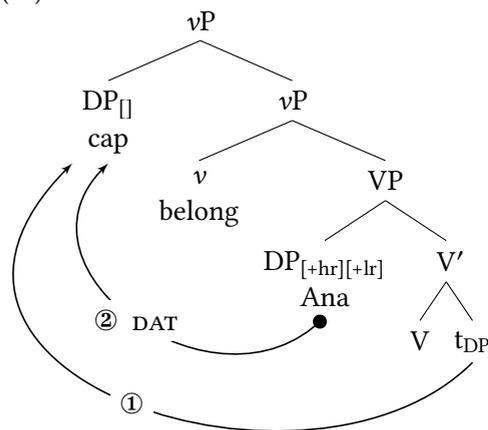
<sup>8</sup>This situation mirrors the one in (8b). Note that since Serbian is a rigid scope language, only movement can affect quantifier scope, thus the reading here cannot be derived by quantifier raising of the existential quantifier and must instead involve movement (see Antonyuk 2015).

become the (derived) subject of the sentence. In order to move to SpecTP, it has to move through the  $vP$  phase edge (Legate 2003). At the  $vP$  edge, this DP can now serve as a case competitor again. After  $\downarrow AGR\downarrow$  fails due to the ergative switch-off parameter that precludes case valuation in Spec $vP$ ,  $\uparrow AGR\uparrow$  succeeds, and [+hr] is assigned to the DAT DP (37).

(36) Lexical dative at VP



(37) Lexical dative at  $vP$



In conclusion, treating these constructions as unaccusatives correctly captures the fact that they cannot passivize and that the  $DP_{NOM}$  is interpreted as a THEME rather than AGENT, thereby enabling a unified treatment of lexical and structural dative as dependent case.

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

(*Feel*)-like-type verbs select for an EXPERIENCER-type dative argument, as in (38). The unmarked word order seems to be DAT > NOM.

- (38) Ani se svidja zelena haljina.  
 Ana.DAT se appeals green.NOM dress.NOM  
 ‘Ana likes the green dress.’

As with the previous group, no additional overt accusative arguments can be added to this structure. Moreover, a structure like this cannot be passivised (39).

- (39) \* Ani je bilo svidjano.  
 Ana.DAT is been appealed.SG.N  
 ‘It was appealed to Ana.’

The lack of passivization possibility and the overt accusative argument, together with the theme interpretation of the NOM argument suggest that this could be an unaccusative construction. The *se* clitic, however, 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 (36) and (37) above. The [+lr] feature is assigned to the higher DP at the VP level via ↓AGR↓, while the [+hr] feature is assigned at the vP 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.

## 5 Conclusion

Dependent case assignment can be formalised by means of a derivational approach, where case features are assigned incrementally, via an Agree operation which holds between two DPs. DAT is assigned as high dependent case in the VP, while ACC is the low dependent case in the vP. 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: (i) in a ditransitive double-object construction with a silent DP as DO and a case competitor, (ii) in a double object construction involving an unaccusative verb. In its strictest form therefore, the Dependent Case Theory can capture assignment of both lexical and structural dative case as dependent case.

## Abbreviations

1	first person	F	feminine
2	second person	GEN	genitive
↓AGR↓	Downward Agree	M	masculine
↑AGR↑	Upward Agree	N	neuter
[+hr]	lower role	NOM	nominative
[+lr]	higher role	PL	plural
ABS	absolutive	POSS	possessive
ACC	accusative	PRT	particle
DAT	dative	REFL	reflexive
ERG	ergative	SG	singular

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## References

- Abels, Klaus. 2012. *Phases: An essay on cyclicity in syntax*. Berlin: de Gruyter.
- Antonyuk, Svitlana. 2015. *Quantifier scope and scope freezing in Russian*. Stony Brook University dissertation.
- Aoun, Joseph & Yen-Hui Audrey Li. 1989. Scope and constituency. *Linguistic Inquiry* 20(2). 141–172. <http://www.jstor.org/stable/4178623>.
- Arregi, Karlos & Andrew Nevins. 2012. *Morphotactics: Basque auxiliaries and the structure of spellout*. Dordrecht: Springer.
- Baker, Mark C. 2008. *The Syntax of Agreement and Concord*. Cambridge: Cambridge University Press.
- Baker, Mark C. 2012. On the relationship of object agreement and accusative case: Evidence from Amharic. *Linguistic Inquiry* 43(2). 255–274. DOI:10.1162/LING\_a\_00085
- Baker, Mark C. 2015. *Case: Its principles and its parameters*. Cambridge: Cambridge University Press.

- Baker, Mark C. & Jonathan D. Bobaljik. 2017. On inherent and dependent theories of ergative case. In Jessica Coon, Diane Massam & Lisa deMena Travis (eds.), *The Oxford handbook of ergativity*, 111–134. Oxford: Oxford University Press. DOI:10.1093/oxfordhb/9780198739371.013.5
- Baker, Mark C. & Nadya Vinokurova. 2010. Two modalities of Case assignment: Case in Sakha. *Natural Language & Linguistic Theory* 28(3). 593–642. DOI:10.1007/s11049-010-9105-1
- Bayer, Josef, Markus Bader & Michael Meng. 2001. Morphological underspecification meets oblique case: Syntactic and processing effects in German. *Lingua* 111(4–7). 465–514. DOI:10.1016/S0024-3841(00)00041-3
- Bittner, Maria & Ken Hale. 1996. The structural determination of case and agreement. *Linguistic Inquiry* 27(1). 1–68. <http://www.jstor.org/stable/4178925>.
- Bobaljik, Jonathan D. 2008. Where's phi? Agreement as a postsyntactic operation. In Daniel Harbour, David Adger & Susana Béjar (eds.), *Phi-features across interfaces and modules*, 295–328. Oxford: Oxford University Press.
- Bošković, Željko. 2001. *On the nature of the syntax–phonology interface: Cliticization and related phenomena*. Amsterdam: Elsevier.
- Bošković, Željko. 2005. On the locality of Left Branch Extraction and the structure of NP. *Studia Linguistica* 59(1). 1–45. DOI:10.1111/j.1467-9582.2005.00118.x
- Bruening, Benjamin. 2001. QR obeys superiority: Frozen scope and ACD. *Linguistic Inquiry* 32(2). 233–273. DOI:10.1162/00243890152001762
- Butt, Miriam. 2006. The Dative-ergative connection. In Patricia Cabredo-Hofherr & Olivier Bonami (eds.), *Empirical issues in formal syntax and semantics 10*, 69–92. The Hague: Thesus.
- Chomsky, Noam. 1986. *Knowledge of language: Its nature, origin, and use*. New York: Praeger.
- Chomsky, Noam. 1991. Some notes of economy of derivation and representation. In Robert Freidin (ed.), *Principles and Parameters in comparative grammar*, 417–454. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In Roger Martin, David Michaels & Juan Uriagereka (eds.), *Step by step: Essays on Minimalist syntax in honor of Howard Lasnik*, 89–155. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In Michael Kenstowicz (ed.), *Ken Hale: A life in language*, 1–52. Cambridge, MA: MIT Press.
- Franks, Steven. 1995. *Parameters of Slavic Morphosyntax*. New York, Oxford: Oxford University Press.
- Frey, Werner. 1989. *Syntaktische Bedingungen für die Interpretation*. University of Stuttgart dissertation.

- Haider, Hubert. 1992. *Branching and discharge*. Manuscript, University of Stuttgart.
- Höhle, Tilman. 2018. Explikationen für „normale Betonung“ und „normale Wortstellung“. In Stefan Müller, Marga Reis & Frank Richter (eds.), *Beiträge zur deutschen Grammatik: Gesammelte Schriften von Tilman N. Höhle*, 107–191. Berlin: Language Science Press. DOI:10.5281/zenodo.1169667
- Joppen, Sandra & Dieter Wunderlich. 1995. Argument linking in Basque. *Lingua* 97(2–3). 123–169. DOI:10.1016/0024-3841(95)00025-U
- Kayne, Richard. 1989. Facets of Romance participle agreement. In Paola Benincà (ed.), *Dialect variation and the theory of grammar*, 85–103. Foris: Dordrecht.
- Kiparsky, Paul. 1992. *Structural case*. Berlin: Institute for Advanced Study.
- Kiparsky, Paul. 2001. Structural case in Finnish. *Lingua* 111(4–7). 315–376. DOI:10.1016/S0024-3841(00)00035-8
- Koopman, Hilda. 2006. Agreement configurations: In defense of ‘Spec head’. In Cedric Boeckx (ed.), *Agreement systems*, 159–199. Amsterdam: John Benjamins.
- Legate, Julie Anne. 2003. Some interface properties of the phase. *Linguistic Inquiry* 34(3). 506–515. DOI:10.1162/ling.2003.34.3.506
- Levin, Ted & Omer Preminger. 2015. Case in Sakha: Are two modalities really necessary? *Natural Language & Linguistic Theory* 33(1). 231–250. DOI:10.1007/s11049-014-9250-z
- Maling, Joan. 2001. Dative: The heterogeneity of the mapping among morphological case, grammatical functions, and thematic roles. *Lingua* 111(4–7). 419–464. DOI:10.1016/S0024-3841(00)00039-5
- Marantz, Alec. 1991. Case and licensing. In German Westphal, Benjamin Ao & Hee-Rahk Chae (eds.), *Proceedings of the 8th Eastern States Conference on Linguistics (ESCOL 8)*, 234–253. Ithaca, NY: CLC Publications.
- Marelj, Marijana. 2004. *Middles and argument structure across languages*. Utrecht University dissertation.
- McFadden, Thomas. 2004. *The position of morphological case in the derivation: A study on the syntax-morphology interface*. Philadelphia: University of Pennsylvania dissertation.
- Pollock, Jean-Yves. 1989. Verb movement, Universal Grammar and the structure of IP. *Linguistic Inquiry* 20(3). 365–424. <http://www.jstor.org/stable/4178634>.
- Preminger, Omer. 2014. *Agreement and its failures*. Cambridge, MA: MIT Press.
- Progovac, Ljiljana. 2013. Rigid syntax, rigid sense: Absolutes/unaccusatives as evolutionary precursors. In Steven Franks, Markus Dickinson, George Fowler, Melissa Whitcombe & Ksenia Zanon (eds.), *Formal Approaches to Slavic Lin-*

- guistics 21: The Third Indiana Meeting 2012*, 246–259. Ann Arbor, MI: Michigan Slavic Publications.
- Sternefeld, Wolfgang. 1985. Deutsch ohne grammatische Funktionen. *Linguistische Berichte* 99. 394–439.
- Stiebels, Barbara. 2002. *Typologie des Argumentlinkings: Ökonomie und Expressivität*. Berlin: Akademie Verlag.
- Stipčević, Balša. 2014. *Dativne rekcijske konstrukcije s neprelaznim glagolima u savremenom srpskom jeziku [Intransitive verb constructions with dative complement in the modern Serbian language]*. Belgrade: University of Belgrade dissertation.
- Stjepanović, Sandra. 1999. *What do second position cliticisation, scrambling and multiple wh-fronting have in common?* University of Connecticut dissertation.
- Titov, Elena. 2017. The canonical order of Russian objects. *Linguistic Inquiry* 48(3). 427–457. DOI:10.1162/ling\_a\_00249
- Velnić, Marta. 2017. *Ditransitive structures in Croatian adult and child language: The role of animacy and givenness*. University of Tromsø dissertation.
- von Stechow, Arnim & Susanne Uhlmann. 1986. Some remarks on focus projection. In Werner Abraham & Sjaak de Meij (eds.), *Topic, focus and configurationality*, 295–320. Amsterdam: Benjamins.
- Wood, Jim. 2017. The accusative subject generalization. *Syntax* 20(3). 215–316. DOI:10.1111/synt.12138
- Wunderlich, Dieter. 1997. Case and the structure of verbs. *Linguistic Inquiry* 28(1). 27–68. <http://www.jstor.org/stable/4178964>.
- Yip, Moira, Joan Maling & Ray Jackendoff. 1987. Case in tiers. *Language* 63(2). 217–250. DOI:10.2307/415655
- Zaenen, Annie, Joan Maling & Höskuldur Thráinsson. 1985. Case and grammatical functions: The Icelandic passive. *Natural Language & Linguistic Theory* 3(4). 441–483. DOI:10.1007/BF00133285

