## Feature sharing and functional heads in concord\*

Emily Clem and Virginia Dawson · University of California, Berkeley eclem@berkeley.edu · virginia.dawson@berkeley.edu LSA · January 4, 2019

### 1 Introduction

- Similar surface patterns can arise via distinct underlying mechanisms
- What pretheoretically looks like "agreement" in the verbal domain can be divided into two distinct phenomena
  - Agreement: feature sharing between a nominal argument and a verbal head
  - Clitic doubling: a realization of the functional head D within the verbal complex
- We argue that a similar distinction can be made in the domain of nominal case concord
  - **Case concord:** feature sharing between multiple categorially distinct elements in the DP
  - **Case doubling:** realization of multiple instances of the functional head D
- In some languages, a noun and its modifiers match in case, regardless of whether the DP is continuous or discontinuous<sup>1</sup>
- (1) '(The) two small children are chasing the dog.' Warlpiri (Pama-Nyungan; Simpson 1991:257-259)
  - a. [Kurdu-**jarra-rlu** wita-**jarra-rlu**] ka-pala maliki wajili-pi-nyi. child-DU-ERG small-DU-ERG PRES-3ds dog chase-NPST
  - b. [Kurdu-**jarra-rlu**] ka-pala maliki wajili-pi-nyi [wita-**jarra-rlu**]. child-DU-ERG PRES-3ds dog chase-NPST small-DU-ERG

 $^1 \rm Note that concord in continuous DPs is optional in Warlpiri, while concord in discontinuous DPs is obligatory (Simpson, 1991).$ 

- In other languages, a noun and its modifiers only match in case if the DP is discontinous
- (2) 'Mukton fed rice to a newborn baby.' Tiwa (Tibeto-Burman)
  - a. Mukton mai-go [korkhyá(\*-na) lurî\*(-na) ] chái os-ga. Mukton rice-ACC child-DAT tender-DAT eat CAUS-PFV
  - b. Mukton [korkhyá\*(-na)] mai-go [lurî\*(-na)] -lo chái Mukton child-DAT rice-ACC tender-DAT -FOC eat os-ga. CAUS-PFV
- Languages like Warlpiri display true concord while languages like Tiwa display case doubling
- We argue that case doubling is the result of multiple DP shells
  - Each instance of D in the shell structure can be realized as case
  - Overt realization of multiple instances of D happens only in discontinuous DPs

#### The upshot

- Surface patterns of concord derive from two distinct mechanisms: one involving feature sharing and one involving multiple instances of D
- Roadmap:
  - §1: Introduction
  - §2: Case doubling in Tiwa
  - §3: The DP-shell analysis
  - §4: Comparison with theories of concord
  - §5: Case doubling crosslinguistically
  - §6: Conclusion

<sup>\*</sup>We would like to thank the members of the Tiwa community (particularly Mary Maslai, Bibiana Maslai, and Pilsing Malang) and Amahuaca community (especially José Piño Bonangué and Celia Sampi Ríos) for their collaboration. We are also grateful to Amy Rose Deal, Line Mikkelsen, Peter Jenks, Mark Norris, and audiences at UC Berkeley, Stanford, Georgetown, MIT, and WC-CFL36 for their feedback on this project.

### 2 Case doubling in Tiwa



- General background:
  - Tibeto-Burman language spoken primarily in Assam, India by approximately 27,100 speakers (Simons and Fennig, 2017)
  - Data collected by the second author between 2015 and 2018 in Umswai, Karbi Anglong district, Assam
  - Head-final with basic SOV order, accusative alignment
  - Case surfaces as an enclitic on the final element of the DP
- A noun and its modifiers can be separated to form a structurally discontinuous DP
  - In a continuous DP, case can only surface on the final element
  - In a discontinuous DP, case surfaces as an enclitic on each piece of the DP
- (3) 'Mukton fed rice to a newborn baby.'
  - a. Mukton mai-go [korkhyá(\*-na) lurî\*(-na) ] chái os-ga. Mukton rice-ACC child-DAT tender-DAT eat CAUS-PFV
  - b. Mukton [ korkhyá\*(-na) ] mai-go [ lurî\*(-na) ] -lo chái Mukton child-DAT rice-ACC tender-DAT -FOC eat os-ga.
     CAUS-PFV
- Both elements of a discontinuous DP behave like independent DPs
  - Both receive case marking, cliticized to their final element
  - Both elements can undergo scrambling independently<sup>2</sup>

- (4) 'Mukton fed rice to a newborn baby.'
  - a. [Lurî-na]-lo Mukton [korkhyá-na] mai-go chái tender-DAT -FOC Mukton child-DAT rice-ACC eat os-ga. CAUS-PFV
  - b. [Korkhyá-na] Mukton [lurî-na]-lo mai-go chái child-DAT Mukton tender-DAT -FOC rice-ACC eat os-ga. CAUS-PFV
  - c. [Lurî-na]-lo Mukton mai-go [korkhyá-na] chái tender-DAT -FOC Mukton rice-ACC child-DAT eat os-ga. CAUS-PFV
  - d. [Korkhyá-na] Mukton mai-go [lurî-na]-lo chái child-DAT Mukton rice-ACC tender-DAT -FOC eat os-ga. CAUS-PFV
- Case doubling is found for all DP modifiers that can be separated from the noun
  - Adjectives (4)
  - Numerals
- (5) 'I gave money to five priests.'
  - a. Ang [ phas chona loro-raw**-a** ] phuisa os-ga. 1SG five CL priest-PL-DAT money give-PFV
  - b. [Phas chona-**na**]-lo ang [loro-raw-**a**] phuisa os-ga. five CL-DAT -FOC 1SG priest-PL-DAT money give-PFV

 (1) [Khúgri-na] khóna [so-sha-tha-na] Lastoi tú han-go os-ga. dog-DAT yesterday hundred-one-CL-DAT Lastoi chicken meat-ACC give-PFV 'Lastoi gave chicken to a hundred dogs yesterday.'

<sup>&</sup>lt;sup>2</sup>Note that while the modifier in a discontinuous DP usually surfaces with focus marking, this is a tendency rather than a requirement.

- Quantifiers
- (6) 'Mansing gave flowers to every woman.'
  - a. Mansing [ sógol margî-raw**-a** ] khum-go os-ga. Mansing every woman-PL-DAT flower-ACC give-PFV
  - Mansing [margî-raw-a ] khum-go [sógol-a ] -lô Mansing woman-PL-DAT flower-ACC every-DAT -FOC os-ga. give-PFV
  - Relative clauses
- (7) 'My mother gave water to the man that was running.'
  - a. Ái má ti-go [cholói lí-wa libíng**-a**] os-ga. my mother water-ACC run AUX-NMLZ person-DAT give-PFV
  - b. [ Cholói lí-wa**-na** ] -lô ái má ti-go run AUX-NMLZ-DAT -FOC my mother water-ACC

[líbing**-a**] os-ga. person-DAT give-PFV

- Demonstratives
- (8) 'Mukton gave money to this person.'
  - a. Mukton [ hêbe líbing**-a** ] phûisa-go os-ga. Mukton this person-DAT money-ACC give-PFV
  - b. Mukton [ líbing-a ] phûisa-go [ hêbe-na ] -lo os-ga. Mukton person-DAT money-ACC this-DAT -FOC give-PFV
  - Indefinite articles
- (9) 'Mukton gave money to some priest.'
  - a. Mukton [ sharkhí loró**-na** ] phûisa-go os-ga. Mukton some priest-DAT money-ACC give-PFV
  - b. Mukton [ loró**-na** ] phûisa-go [ sharkhí**-na** ] -lo os-ga. Mukton priest-DAT money-ACC some-DAT -FOC give-PFV

- Possessors
- (10) 'Monbor saw Sonali's cat.'
  - a. Monbor [ Sonali-ne miyâw**-go** ] khóna nú-ga. Monbor Sonali-GEN cat-ACC yesterday see-PFV
  - b. Monbor [ miyâw**-go** ] khóna [ Sonali-ne**-go** ] -lo nú-ga. Monbor cat-ACC yesterday Sonali-GEN-ACC -FOC see-PFV
- In addition to dative case, case doubling in discontinuous DPs occurs with:
  - Nominative (-Ø)
- (11) 'Every woman didn't come yesterday.'
  - a. [Sógol margî-raw] khóna phi-ya-m. every woman-PL yesterday come-NEG-PST
  - b. [Margî-raw] khóna [sógol] -lô phi-ya-m. woman-PL yesterday every -FOC come-NEG-PST
  - Accusative (-*gô*)
- (12) 'Mukton greeted every priest in the market.'
  - a. Mukton [ sógol loró-râw**-go** ] hat-o sêwa os-ga. Mukton every priest-PL-ACC market-LOC greet-PFV
  - b. Mukton [ loró-râw-go ] hat-o [ sógol-go ] -lo Mukton priest-PL-ACC market-LOC every-ACC -FOC sêwa os-ga. greet-PFV
  - Genitive (-(*n*)*e*)
- (13) 'Lastoi bought the book that every teacher read yesterday.'
  - a. Lastoi [DP [RC [sógol sígai kirî-raw-e] khóna lekhé-wa] Lastoi every teacher-PL-GEN yesterday read-NMLZ
    lái-go ] pre-ga. book-ACC buy-PFV
  - b. Lastoi [DP [RC [sígai kirî-raw-e] khóna [sógol-e] -lô Lastoi teacher-PL-GEN yesterday every-GEN -FOC lekhé-wa ]lái-go ]pre-ga. read-NMLZ book-ACC buy-PFV

– Comitative (-*rê*)

- (14) 'Lastoi went to market with every man.'
  - a. Lastoi [ sógol mewâ-raw-**re** ] hat-a lí-ga. Lastoi every man-PL-COM market-DAT go-PFV
  - b. Lastoi [ mewâ-raw-re ] hat-a [ sógolarê ] -lo lí-ga. Lastoi man-PL-COM market-DAT every.COM -FOC go-PFV
- Summary:
  - Case doubling occurs only in structurally discontinuous DPs
  - Both elements of the discontinuous DP behave like full DPs
  - Case doubling occurs with all modifiers and with a variety of case markers

# 3 The DP-shell analysis

- Desiderata:
  - Derive case doubling only under discontiguity
  - Account for the fact that each piece of a discontinuous DP behaves like an independent DP
- ► Both can be achieved on an account which assumes multiple DP shells
- We assume that DPs contain two nested DP layers
- The head of the highest DP selects a DP complement
  - The structure of the DP korkhyá lurî 'tender child' is given below



- Discontinuous DPs involve movement of a subconstituent of  $DP_2$  to the specifier of  $DP_1$
- The element that will be stranded (in this case the AP) undergoes movement to Spec, DP<sub>1</sub>



- After the AP has moved to Spec, DP<sub>1</sub>, DP<sub>2</sub> can undergo remnant movement to a position higher in the clausal spine
- This remnant movement strands DP<sub>1</sub>, which contains the adjective, and results in discontiguity
- (17) Mukton [DP2 korkhyá-na] mai-go [DP1 lurî tDP2 -na] -lo chái Mukton child-DAT rice-ACC tender -DAT -FOC eat os-ga. CAUS-PFV

'Mukton fed rice to a newborn baby.'

- Evidence that the pieces of a discontinuous DP are related via movement comes from islands
- A noun cannot be separated from its modifier across any type of island boundary
  - Coordinate structure (18)
  - Relative clause (Appendix A)
  - Conditional (Appendix A)

- (18) 'Lastoi saw one cat and two elephants.'
  - a. Lastoi khóna [[miyâw kishá-gô] arô [hadî Lastoi yesterday cat one.CL-ACC and elephant kining-gô]] nú-ga. two.CL-ACC see-PFV
  - b. \* Lastoi [ hadî-go ] khóna [ [ miyâw kishá-gô ] arô Lastoi elephant-ACC yesterday cat one.CL-ACC and [ kining-gô ] (-lo) ] nú-ga. two.CL-ACC -FOC see-PFV

#### Multiple realizations of case in discontinuous DPs

- DP<sub>1</sub> and DP<sub>2</sub> each contain an instance of D that can realize case
  - While the two DPs are nested, the case feature of D<sub>1</sub> is spread to D<sub>2</sub>
  - This feature transmission is limited to heads of category D
- When the two DPs are separated via movement, both instances of D realize case
- (19) Mukton [DP2 korkhyá-na] mai-go [DP1 lurî tDP2 -na] -lo chái Mukton child-DAT rice-ACC tender -DAT -FOC eat os-ga. CAUS-PFV

'Mukton fed rice to a newborn baby.'

#### A single instance of case in continuous DPs

- When DP<sub>1</sub> and DP<sub>2</sub> remain nested, there are two adjacent instances of D, so we would expect two DP-final case enclitics
- Instead, only one instance of D is realized due to haplology
- (20) Mukton mai-go [DP1 [DP2 korkhyá lurî-na] (\*-na)] chái Mukton rice-ACC child tender-DAT -DAT eat os-ga.
   CAUS-PFV
  - 'Mukton fed rice to a newborn baby.'

- Evidence that haplology is independently active for case markers in Tiwa comes from NP ellipsis
- (21) Context: Everyone's wife made a vegetable curry. Tonbor ate Mukton's wife's curry, Mansing ate Tonbor's wife's curry, and Mukton ate Mansing's wife's curry.

Tonbor [ Mukton-e si-ne ságar-go ] chá-ga, Tonbor Mukton-GEN wife-GEN curry-ACC eat-PFV

Mansing [ Tonbor-e si-ne-go ] chá-ga, Mansing Tonbor-GEN wife-GEN-ACC eat-PFV

arô Mukton [ Mansing-e(\*-ne)-go ] chá-ga. and Mukton Mansing-GEN-GEN-ACC eat-PFV 'Tonbor ate Mukton's wife's curry, Mansing ate Tonbor's wife's (curry), and Mukton ate Mansing's (wife's curry).'

#### Case mismatches in DOM contexts

- With accusative case, case doubling sometimes appears "optional"
- (22) Lastoi [ ngá-gô ] khóna [ mile(-go) ] -lo pre-ga. Lastoi fish-ACC yesterday every-ACC -FOC buy-PFV 'Lastoi bought every fish yesterday.'
- Case doubling is obligatory for other morphological cases
- (23) 'Sonali gave milk to three cats.'
  - a. Sonali [ thin-tha miyâw**-na** ] kakhîr-go os-ga. Sonali three-CL cat-DAT milk-ACC give-PFV
  - b. Sonali [ miyâw**-na** ] kakhîr-go [ thin-tha**\*(-na)** ] os-ga. Sonali cat-DAT milk-ACC three-CL-DAT give-PFV
- Differential object marking (DOM) is independently attested in Tiwa
- (24) Sonali [ ngá(-gô) ] pre-ga.Sonali fish-ACC buy-PFV'Sonali bought (the) fish.'

- DOM is conditioned by multiple factors, but the same conditioning factors hold for discontinuous elements
  - If a continuous DP must be marked in a particular context, a piece of a discontinuous DP in that same position must also be marked
- (25) 'I quickly plucked all the flowers.'
  - a. Ang [ mile khum\*(-go) ] salang ha-ga. 1SG every flower-ACC quickly pluck-PFV
  - b. Ang [ khum\*(-go) ] salang [ mile(-go) ] -lo ha-ga. 1SG flower-ACC quickly every-ACC -FOC pluck-PFV
- When a DP is split, the higher portion is an independent DP, DP<sub>2</sub>, and is independently eligible for case assignment
- Since DP<sub>1</sub> and DP<sub>2</sub> are no longer nested at the time of accusative case assignment to DP<sub>2</sub>, the case is not spread to both instance of D
- This results in a case mismatch

### 4 Comparison with theories of concord

- Various mechanisms for deriving case concord both within continuous DP structures and in non-contiguous structures have been proposed
  - One family of views assumes that case is assigned independently to multiple elements (Kayne, 2002; Brattico, 2008; Matushansky, 2008)
  - Another set of analyses assumes that case is assigned only once and then spread to all of the elements that bear case (Babby, 1987; Halpert, 2015; Norris, 2018)
- Neither family of analyses provides a way to rule out case matching in continuous DPs while allowing it in discontinuous DPs
  - If case can be assigned independently to multiple elements in the DP, it is unclear why that assignment would only take place in discontinuous structures
  - If case is assigned once and spread, it is unclear how this spreading would take place only under discontiguity

- If we found the reverse pattern where concord only occurred in continuous DPs, we could derive this by assuming that concord applied after movement, allowing movement to bleed concord
- ➤ The pattern found in Tiwa, where movement feeds concord, cannot be derived by reordering the operations of movement and concord
- We could consider a modification to traditional accounts that assumes that concord always applies, but is sometimes not realized
  - Case concord always takes place in Tiwa
  - In continuous DPs, only one instance of case is realized due to a morphological impoverishment rule that limits the number of case markers that can be realized in a single continuous DP
- This account requires some stipulations to derive the attested patterns
  - The evidence from DOM shows that the higher piece of a discontinuous DP must be independently eligible for case assignment
    - \* Under the current account, this falls out from the fact that this higher piece is a full DP
  - The single case marker in a continuous DP must always occur as the final element in the DP
    - \* Under the current account, this is because case realizes the head-final head of DP
- Our account shares similarities with the impoverishment account
  - Multiple instances of case are present in continuous DPs, but only one is realized
  - Non-pronunciation of the second case marker is motivated by haplology, which is independently attested in Tiwa case marking, rather than by a stipulative impoverishment rule
- ► We conclude that the Tiwa pattern derives from a different underlying mechanism than traditional concord
  - The empirical profile is different case doubling occurs only under discontiguity in Tiwa
  - Traditional analyses of concord cannot be straightforwardly extended to cover this pattern

### 5 Case doubling crosslinguistically

#### 5.1 Amahuaca

- Amahuaca is an endangered Panoan language spoken in the Peruvian and Brazilian Amazon
  - All data come from the first author's fieldwork from 2015 to 2018
- Like Tiwa, Amahuaca shows case doubling in discontinuous DPs
- (26) 'All the men are killing a peccary.'
  - a. [kiyoo=vi(\*=nin) joni\*(=n) ]=mun jono all=EMPH=ERG man=ERG =C peccary rutu=hi=ki=nu kill=IPFV=3.PRES=DECL
  - b. [joni=n ]=mun jono [kiyoo=vi=nin ] man=ERG =C peccary all=EMPH=ERG rutu=hi=ki=nu kill=IPFV=3.PRES=DECL
- Amahuaca shows differential case marking for subjects
- Unlike the Tiwa pattern of DOM, this differential case marking is purely structural, based on syntactic position (Clem, 2018)
  - When the transitive subject remains in its base position, it does not surface with ergative case
  - When the transitive subject moves to a higher position, it must surface with ergative
- (27) 'The man is killing the peccary.'
  - a. joni\*(=n)=mun jono rutu=hi=ki=nu man=ERG=C peccary kill=IPFV=3.PRES=DECL
  - b. jono=mun rutu=hi joni(\*=n)=ki=nu
    peccary=C kill=IPFV man=ERG=3.PRES=DECL
- When a DP is split, the piece that remains in the base position does not surface with case, while the piece that moves higher does

- (28) [kiyoo=vi=nin ] =mun jono rutu=hi [joni(\*=n) ]
   all=EMPH=ERG =C peccary kill=IPFV man=ERG
   =ki=nu
   =3.PRES=DECL
  - 'All the men are killing a peccary.'
- This provides further evidence that the higher piece of a discontinuous DP must be independently eligible for case assignment
- $\bullet$  The Amahuaca data also provide evidence for the proposed remnant movement of  $\text{DP}_2$
- When a noun occurs with multiple modifiers, the noun can be stranded while all of its modifiers move together to a higher position
  - The NP moves to Spec, DP<sub>1</sub>
  - The modifiers remain in  $\ensuremath{\mathsf{DP}}_2$  and undergo remnant movement
- (29) 'Three black dogs are chasing a chicken.'
  - a. hatapa=mun chivan=hi [ hino chaho kimisha ] =ki=nu chicken=C chase=IPFV dog black three =3.PRES=DECL
  - b. [chaho kimisha=nan] =mun hatapa chivan=hi [hino]
     black three=ERG =C chicken chase=IPFV dog
     =ki=nu
     =3.PRES=DECL
- ► This strengthens the argument that the moving DP<sub>2</sub> in these discontinuous structures is a remnant constituent

#### 5.2 Kanum

- Kanum (Papuan; Donohue 2011) shows evidence that case concord and case doubling can be active in the same language
- Case concord is not possible for adjectives in continuous DPs
- (30) ntaop(\*-ne) klawo-ne big-DAT child-DAT 'for the big child'

Donohue 2011:503

• Demonstratives do show case concord in continuous DPs

- (31) klawo-w pyengkw child-ERG that:ERG
   'that child' Donohue 2011:503
- In discontinuous DPs, an adjective that is separated from a noun can surface with case
- (32) [Yrye-w pyengkw] sreyerknt [ntaop-w.] man-ERG that:ERG he:will:stalk:it big-ERG
   'That big man will stalk it.' Donohue 2011:505
- The realization of case on demonstratives is due to traditional concord
- The realization of case on adjectives only under discontiguity is due to case doubling
- ► The current account predicts that concord and case doubling should be able to co-occur, and this is borne out

### 6 Conclusion

- We have argued that case concord and case doubling constitute two empirically distinct phenomena
- Case concord
  - Surface distribution: case on multiple DP-internal elements in both continuous and discontinuous DPs
  - Underlying mechanism: shared case features on categorially distinct elements in the DP
- Case doubling
  - Surface distribution: case matching only in discontinuous DPs
  - Underlying mechanism: realization of multiple instances of the functional head D
- The concord/case doubling distinction mirrors the agreement/clitic doubling distinction
  - One is due to the sharing of features between categorially distinct elements

- One is due to multiple realizations of the functional head D
- We have discovered much about the distinctive empirical signatures of agreement and clitic doubling through careful investigation of the differences between these phenomena
- Similar insight into the domain of concord can be gained by further investigating the distinction between case concord and case doubling

# Appendix A: Discontinuous DPs and islands in Tiwa

- Evidence that movement is involved in the derivation of discontinuous DPs comes from islands
- It is impossible to separate the two elements of a discontinuous DP across a relative clause island
- (33) 'Tomorrow, Lastoi will catch the dog that bit all the people (last year).'
  - a. Lastoi khónana [DP [RC [ líbing-râw-go ] (mokhále)
     Lastoi tomorrow person-PL-ACC last.year
     [ sógol-gô ] -lo chi-wa ] khúgri-gô ] róm mán-o.
  - every-ACC -FOC bite-NMLZ dog-ACC catch AUX-NEUT b. \* Lastoi [ líbing-râw-**go** ] khónana [<sub>DP</sub> [<sub>RC</sub> (mokhále) Lastoi person-PL-ACC tomorrow last.year

[ sógol**-gô** ] -lo chi-wa ] khúgri-gô ] róm mán-o. every-ACC -FOC bite-NMLZ dog-ACC catch AUX-NEUT

- c. \* Lastoi khónana [DP [RC (mokhále) [sógol-gô] -lo Lastoi tomorrow last.year every-ACC -FOC chi-wa ] khúgri-gô ] [ líbing-râw-go ] róm mán-o. bite-NMLZ dog-ACC person-PL-ACC catch AUX-NEUT
- It is similarly ungrammatical to split a DP across a conditional island
- (34) 'If Lastoi sees every man, she'll be happy.'
  - a. [<sub>COND</sub> Chidî Lastoi [ sógol mewâ-raw-go ] -lo nú-gaidô, ] if Lastoi every man-PL-ACC -FOC see-COND khâdu-gam. happy-CF

b. \* [<sub>COND</sub> Chidî Lastoi [ sógol**-gô** ] -lo nú-gaidô, ] if Lastoi every-ACC -FOC see-COND

```
[ mewâ-raw-go ] khâdu-gam.
man-PL-ACC happy-CF
```

# Appendix B: Case stacking in Tiwa

- The DP-shell analysis can straightforwardly derive instances of case stacking in discontinuous DPs
- When a possessor is split from the possessum, the possessor surfaces with genitive case, plus the case that was assigned to the possessum
- (35) Monbor [miyâw-go] khóna [Sonali-ne-go] -lo nú-ga. Monbor cat-ACC yesterday Sonali-GEN-ACC -FOC see-PFV
   'Monbor saw Sonali's cat yesterday.'
- This is because the DP containing the possessor contains two instances of D
- A DP-shell structure for the DP *Sonaline miyâw* 'Sonali's cat' is given below, where the possessor is assumed to be a full DP



• The possessor, which will be stranded, moves to Spec, DP<sub>1</sub>



• When DP<sub>2</sub> undergoes remnant movement, the head of the possessor DP, D<sub>3</sub>, and the head of the outer DP shell, D<sub>1</sub>, are adjacent



- D<sub>3</sub> is realized as genitive case, while D<sub>1</sub> was assigned accusative case
- Since the two adjacent instances of D have different case values they both surface, resulting in stacking
- Independent evidence for case stacking when multiple instances of D surface adjacent to one another comes from NP ellipsis
- When a possessed noun is elided, the possessor surfaces with genitive case plus the case of the entire larger DP
- (39) Milton-e [Monbor-e thílu-gô] chá-wa-ne khélango, Milton-GEN Monbor-GEN banana-ACC eat-NMLZ-GEN after Monbor-bo [Milton-e-go] chá-ga. Monbor-ADD Milton-GEN-ACC eat-PFV
  'After Milton ate Monbor's banana, Monbor ate Milton's.'

### References

- Babby, Leonard H. 1987. Case, prequantifiers, and discontinuous agreement in Russian. *Natural Language & Linguistic Theory* 5:91–138.
- Brattico, Pauli. 2008. Kayne's model of Case and Finnish nominal phrases. *Nordic Journal of Linguistics* 31:135–160.
- Clem, Emily. 2018. Amahuaca ergative as agreement with multiple heads. To appear, *Natural Language & Linguistic Theory*.
- Donohue, Mark. 2011. Case and configurationality: Scrambling or mapping? *Morphology* 21:499–513.
- Halpert, Claire. 2015. *Argument licensing and agreement*. Oxford: Oxford University Press.
- Kayne, Richard S. 2002. On some prepositions that look DP-internal: English *of* and French *de*. *Catalan Journal of Linguistics* 1:71–115.
- Matushansky, Ora. 2008. A case study of predication. In *Studies in formal Slavic linguistics. contributions from Formal Description of Slavic Languages 6.5,* ed. Franc Marušič and Rok Žaucer, 213–239. Frankfurt am Main: Peter Lang.
- Norris, Mark. 2018. Unmarked case in Estonian nominals. *Natural Language & Linguistic Theory* 36:523–562.
- Simons, Gary F., and Charles D. Fennig, ed. 2017. *Ethnologue: Languages of the world*. Dallas: SIL International, twentieth edition. Online version: http://www.ethnologue.com.
- Simpson, Jane. 1991. Warlpiri morpho-syntax, volume 23 of Studies in Natural Language and Linguistic Theory. Dordrecht: Springer.