

When dependent case is not enough

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Our claims

- Even if dependent case exists, we need case-assignment via Agree
- CPs can be case competitors, but do not get case-marking
- Agreement-based case splits in Romance, Kashmiri and elsewhere suggests a closer link between φ -features and case than in dependent case theory
- It is possible to adapt both Agree and dependent case to these patterns but we argue that **Agree is often more parsimonious**

1 The dependent case approach

(1) Dependent case theory

Morphologically marked cases (ACC/ERG/DAT) result from a **relationship between two DPs** rather than from a relationship between a head and a DP.

There are many different versions of this general approach, e.g. Anderson (1976), Yip, Maling & Jackendoff (1987), Marantz (1991), Bittner & Hale (1996), McFadden (2004), Baker & Vinokurova (2010), M. C. Baker (2015), Levin & Preminger (2015), Nash (2017).

- M. C. Baker (2015) argues that dependent cases are determined at the phase level and assigned at the transfer to spell-out

- (2) Dependent case by c-command (M. C. Baker 2015: 48–49, our emphasis)
- a. If there are two distinct NPs in the same spell out domain such that NP1 c-commands NP2, then **value the case feature of NP2 as accusative** unless NP1 has already been marked for case.
 - b. If there are two distinct NPs in the same spell out domain such that NP1 c-commands NP2, then **value the case feature of NP1 as ergative** unless NP2 has already been marked for case.

We consider two main empirical advantages of dependent case theory.

1. Case-marking sensitive to transitivity

- (3) Shipibo (M. C. Baker 2015: 55, citing Valenzuela 2003: 691, 694 for (3b))

a. *Kotoki-ra joshin-ke.*
fruit-PTCL ripen-PFV

‘The fruit ripened.’

b. *Bimi-n-ra Rosa joshin-xon-ke.*
fruit-ERG-PTCL Rosa.ABS ripen-APPL-PFV

‘The fruit ripened for Rosa.’

2. Differential argument marking

- (4) Dependent case in Sakha (Baker & Vinokurova 2010: 602)

a. [_{VP} *Masha salamaat-*(y) turgennik* [_{VP} *salamaat sie-te*]].
Masha porridge-ACC quickly eat-PST.3SG.SBJ

‘Masha ate the porridge quickly.’

b. [_{VP} *Masha turgennik* [_{VP} *salamaat-(#y) sie-te*]].
Masha quickly porridge-ACC eat-PST.3SG.SBJ

‘Masha ate porridge quickly.’ (ACC on ‘porridge’ only if it has contrastive focus)

- For Baker & Vinokurova some cases, e.g. NOM and GEN in Sakha, result from Agree
- These cases correlate with morphological agreement
- Levin & Preminger (2015) argue that we do not Agree for these cases either: “co-variation ... does not determine causation” (Levin & Preminger 2015: 236)

- Does case ever result from Agree?
- Are there contexts where dependent case is not sufficient? We consider ...

?

1. The behaviour of CPs (and PPs) as clause competitors
2. Global case splits

→ We suggest that Agree is sometimes the most parsimonious source of case

2 Clauses as case competitors

M. C. Baker (2015) notes the following about CP complements:

“

Without tinkering with the dependent case rule, we expect fully nominalized clauses to both undergo and trigger dependent case assignment, whereas true CPs should neither trigger dependent case nor undergo it. (M. C. Baker 2015: 197)

! But: In Tsez, for example, non-nominalised finite CP complements surface with an ergative subject (Polinsky & Potsdam 2001)

(5) Tsez (Polinsky & Potsdam 2001: 590)

kid-bā [*už-ā* *hibore-d* *bikori žek'-si-λin*] *eλis*
 girl-ERG boy-ERG stick-INS snake hit-PST.EVID-COMP said
 ‘The girl said the boy hit a snake with a stick.’

- CP complements contrast with nominalised embedded clauses (Polinsky & Potsdam 2001)
- These permit long distance Agree with topicalised ABS arguments
- Nominalised and CP complements (introduced by *-λin*) trigger gender IV agreement

! Even nominalised clauses cannot bear ergative, however

(6) Tsez (Polinsky 2015: 126, (21b))

* [*Eli* *b-āy-ru-ti*]-z-ä *mi* *ħayran* *y-oy-ä?*
 1PL.ABS.(IPL) IPL-come-PST.PTCP-NMLZ-OBL-ERG 3SG.ABS.(II) surprised II-do-PST.WIT.INT
 intended: ‘Did it surprise you that we came?’ (addressing a woman)

→ In Tsez, not all case competitors get dependent case marking, but they all agree

- In Mayan languages (Henderson & Coon 2018, Coon, Baier & Levin 2019) and Icelandic (Ingason 2018), CPs also count as case competitors

2.1 Romance causatives and dependent dative

Pitteroff & Campanini (2013) propose that dative is a dependent case in the Italian *faire*-infinitive (building on Marantz 1991, Folli & Harley 2007). Both finite and non-finite CPs count as case competitors (see also Pineda, Schifano & Sheehan 2018). The same is true for other Romance languages. In Italian, French, and Catalan, ...

- ... causees associated with a transitive predicate are **dative** (cf. (7a)),
- while causees associated with an intransitive predicate are **accusative** (cf. (7b))

(7) French

- a. *Elle lui / *l'=a fait [manger les épinards]*
 3SG.F 3SG.DAT 3SG.ACC=has made eat.INF the.PL spinach.PL
 ‘She made him/her eat the spinach.’
- b. *Il l' / *lui=a fait [partir]*.
 3SG.M 3SG.ACC 3SG.DAT=has made leave.INF
 ‘He made him/her leave.’

- Kayne (1975) shows that finite sentential complements trigger DAT on the causee
- With non-restructuring verbs, (9a), non-finite complements also trigger DAT
- With restructuring verbs, (9b), the transitivity of the most embedded predicate determines case on the causee

(8) French (Kayne 1975: 210)

Elle a fait admettre à Jean [qu'il avait tort].
 3SG.F has made admit.INF DAT Jean that=3SG.M had wrong
 ‘She made Jean admit that he was wrong.’

(9) French

- a. *Marie lui / *l'=a fait promettre [de faire quelque chose]*
 Maria 3SG.DAT 3SG.ACC made promise.INF de do.INF something
 ‘Marie made him/her promise to do something.’
- b. *Ça l' ??lui fait vouloir [sourire]*.
 that 3SG.ACC 3SG.DAT make.3SG.PRS want.INF smile.INF
 ‘That makes him/her smile.’

! Finite CPs and DPs are distributed differently in French (cf. Stowell 1981)

Reflexive verbs such as *s'apercevoir* 'to realise', *s'attendre* 'to expect', *s'habituer* 'to get used to', *se plaindre* 'to complain', *se méfier* 'to mistrust', can take nominal or CP complements (see also Zaring 1992).

- Nominal complements must be introduced by a preposition
- Finite CP complements cannot be introduced by prepositions unless nominalised

(10) French (examples from the internet)

- a. *Il se plaint [de la musique trop forte]*.
 3SG.M REFL complain.3SG **de** the music too loud.F
 'He complains about the music being too loud.'
- b. *Il se plaint [que cet expert n'ait pas examiné des photographies ...]*
 3SG.M REFL complain.3SG **that** that expert NEG=has.SBJV.3SG NEG examined DET
 photos
 'He complains that that expert has not examined photographs ...'

(11) French (examples from the internet)

- a. *Je m'attend [à quelque chose d'incroyable] mais en fait non.*
 1SG 1SG.REFL=expect **à** some thing de unbelievable but in fact
 'I expect something unbelievable but actually no.'
- b. *Je m'attend [à ce que vous me disiez] ...*
 1SG 1SG.REFL=expect **à** that that 2PL 1SG.ACC say.2PL.SBJV
 'I expect that you tell me ...'

2.2 CPs, Agree, and the PCC

Davies & Dubinsky (2001) show that finite and non-finite CPs can trigger number agreement in French (the same is true for Italian).

(12) French (Davies & Dubinsky 2001: 259–260)

- a. [*Que le défilé continue*] ou [*qu'il soit annulé*] a /
 that the march continue.3SG or that=it be.3SG.SBJ cancelled have.3SG
ont été discuté par les mêmes gens à différentes occasions.
 have.3PL been discussed by the same people at different times
 'That the march should go ahead or that it should be cancelled has/have been argued by the same people at different times.'

- b. [*Séjourner dans les montagnes*] et [*longer la côte*] me paraissent une
 stay.INF in the mountains and go.along the coast 1SG.ACC seem.3PL a
façon admirable pour connaître la vrai France.
 way admirable for get to know.INF the true France

‘Traveling through the mountains and going along the coast appear to me an admirable way to get to know the real France.’

Postal’s (1989) “fancy constraint” requires a phonologically weak direct object to be third person in the context of a dative in *faire* causatives. This is a “stricter” version of the person case constraint (PCC) which rules out any dative argument in the presence of a weak first or second direct object (see also Sheehan to appear).

(13) French (Postal 1989: 2)

*Marcel l’ / *vous=a fait épouser au médecin.*
 Marcel 3SG.ACC 2PL.ACC=has made marry DAT doctor
 ‘Marcel had the doctor marry *you / her/him.’

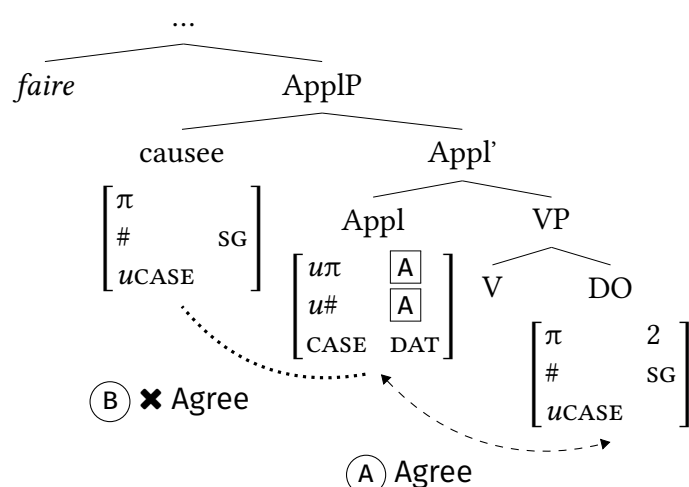
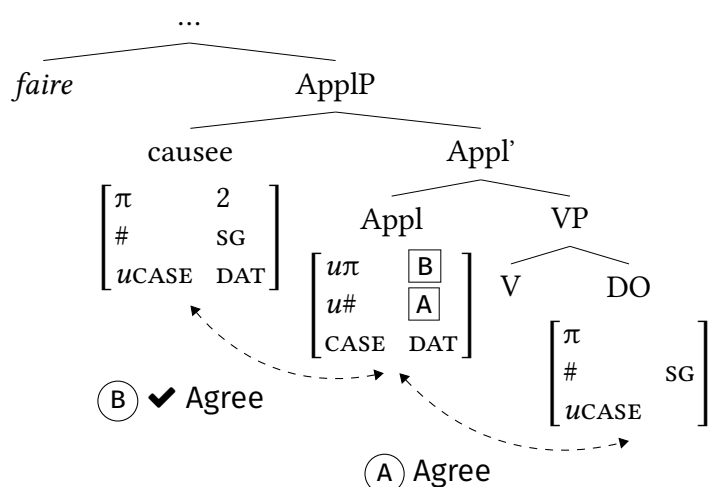
A possible analysis involves cyclic Agree (Béjar & Rezac 2009, §3) with both arguments:

- Third person does not have a person feature in French
- Appl introduces the causee (Pitteroff & Campanini 2013)
- Appl agrees with DO first
- Appl agrees with the causee if it has unvalued features left

(14) Causee is DAT when Appl agrees with DO and causee

a. ✓ 2, 3

b. ✗ 3, 2



b. 2nd person SBJ, 1st person OBJ → DAT OBJ

tsi chu-kh me parina:va:n
 you.NOM be.M.SG-2SG.SBJ I.DAT teach.PTCP.PRS
 ‘You are teaching me.’

(17) Kashmiri (Wali & Koul 1997: 156)

a. 2nd person SBJ, 3rd person OBJ → NOM OBJ

tsi chi-h-an su parina:va:n
 you.NOM be-2SG.SBJ-3SG.OBJ he.NOM teach.PTCP.PRS
 ‘You are teaching him.’

b. 3rd person SBJ, 2nd person OBJ → DAT OBJ

su chu-y tse parina:va:n
 he.NOM be.M.SG-2SG.OBJ you.DAT teach.PTCP.PRS
 ‘He is teaching you.’

| ▼ SBJ / ► OBJ | 1 | 2 | 3 |
|---------------|-----|-----|-----|
| 1 | | NOM | NOM |
| 2 | DAT | | NOM |
| 3 | DAT | DAT | DAT |

(a) NOM and DAT on DOs in Kashmiri (IPFV)

| ▼ SBJ / ► OBJ | 1SG | 1PL | 2 | 3 |
|---------------|-----|-----|-----|-----|
| 1SG | | =na | =na | =na |
| 1PL | | | =na | -∅ |
| 2 | =na | =na | | -∅ |
| 3 | =na | =na | =na | =na |

(b) Distribution of ACC =na in Wampis

Table 1: Distribution of NOM/ACC/DAT in Kashmiri (Table 1a) and Wampis (Table 1b)

Wampis Wampis (Jivaroan; Peru) has an accusative marker =na (Peña 2015: 715–720).

- The external and the internal argument agree with the verb
- Third person DOs do not get accusative if and only if the subject is 1PL or 2nd person

(18) Wampis (Peña 2015: 718)

a. 1SG SBJ, 3rd person object → ACC OBJ

iaũaa=na mã-á-ma-ha-i
 jaguar=ACC kill-HIAF-REC.PST-1SG.SBJ-DECL
 ‘I killed a jaguar.’

b. 2SG SBJ, 3rd person object → NOM OBJ

ami *iauãa* *mã-á-ma-mi*
 2SG jaguar kill-HIAF-REC.PST-2SG.SBJ.DECL
 ‘You killed a jaguar.’

c. 1PL SBJ, 3rd person object → NOM OBJ

iauãa *mã-á-ma-hi*
 jaguar kill-HIAF-REC.PST-1PL.SBJ.DECL
 ‘We killed a jaguar.’

Sahaptin Sahaptin (Sahaptian, USA; Rigsby & Rude 1996, Deal 2010, Keine 2010) has several allomorphs of (structural) ergative that depend on the properties of the subject and the object and that correlate with different inverse markers.

(19) Sahaptin (Rigsby & Rude 1996: 673, 676, 677)

a. PROX 3rd person SBJ, OBV 3rd person OBJ → NOM SBJ

iwíns *i-qínun-a* *yáamaš-na*.
 man 3.NOM-see-PST mule deer-OBJ
 ‘The man saw a/the mule deer.’

b. PROX 3rd person SBJ, 2nd person OBJ → INV.ERG SBJ

iwíns-nim=*nam* *i-qínu-ša*.
 man-INV.ERG=2SG 3.NOM-see-IPFV
 ‘The man sees you.’

c. OBV 3rd person SBJ, PROX 3rd person OBJ → OBV.ERG SBJ

iwíns-in *pá-tuxnana* *yáamaš-na*.
 man-OBV.ERG 3.INV-shot mule deer-OBJ
 ‘The man shot a mule deer.’

| ▼ SBJ / ► OBJ | 1 | 2 | 3 |
|---------------|-------------|-------------|------------|
| 1 | | | |
| 2 | | | |
| 3 | <i>-nim</i> | <i>-nim</i> | <i>-in</i> |

(a) Inverse ergative suffixes

| ▼ SBJ / ► OBJ | 1 | 2 | 3 |
|---------------|---|------------|---------------|
| 1 | | | |
| 2 | | <i>pá-</i> | |
| 3 | | <i>i-</i> | <i>i- pá-</i> |

(b) Inverse verb markers

Table 2: Distribution of inverse ERG and verb markers in Sahaptin (Rigsby & Rude 1996)

3.1 Dependent case and global case splits

How could dependent case handle languages with global case splits?

? **Movement:** Arguments move to a particular domain, so that their configuration or their order determines their case²

Fine-grained c-command: C-command of layered φ -features determines case

3.1.1 Movement First, different orders of subject and object do not affect case-marking in Kashmiri (or in Wampis, Jaime Peña, p.c.). Movement might happen after dependent case (DC) is determined, but scope in Kashmiri matches surface order (Bhatt 1999: 181). Case-marking is therefore not an indicator of inverse scope (unlike in e.g. Passamaquoddy, Bruening 2001).

(20) Kashmiri (Wali & Koul 1997: 156; Shafi Shauq, p.c.)

a. **SBJ V OBJ**

su chu-y tse parina:va:n
 3SG.NOM be.M.SG-2SG.OBJ YOU.DAT teach.PTCP.PRS
 ‘He is teaching you.’

b. **OBJ V SBJ**

tse chu-y su parina:va:n
 2SG.DAT be.M.SG-2SG.OBJ he.NOM teach.PTCP.PRS
 ‘He is teaching you.’

Second, how can an argument move due to the φ -features of another argument?

Movement scenario 1 High SBJ, low/high OBJ, DAT when both are in same domain

(21) NOM-NOM

a. [1.SBJ.NOM [α 2/3.OBJ.NOM]] cf. (16a)

b. [2.SBJ.NOM [α 3.OBJ.NOM]] cf. (17a)

(22) NOM-DAT

a. [2/3.SBJ.NOM 1.OBJ.DAT [α t_{OBJ}]] cf. (16b)

b. [3.SBJ.NOM 2.OBJ.DAT [α t_{OBJ}]] cf. (17b)

c. [3.SBJ.NOM 3.OBJ.DAT [α t_{OBJ}]] cf. Table 3a

? Why would 2.OBJ move in (22b), but not in (21a)?

? Why would 3.OBJ move in (22c), but not in (21a)?

²See Jelinek & Carnie (2003), Merchant (2006), Coon & Preminger (2012). See Kalin & Weisser (2018) for arguments against movement analyses of differential object marking (DOM).

Movement scenario 2 Low/high SBJ, low OBJ, DAT when both are in same domain

(23) NOM-NOM

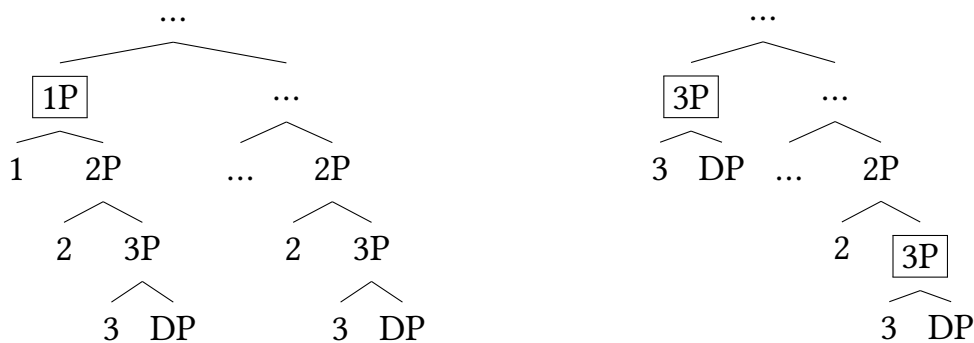
a. [1.SBJ.NOM [_α t_{SBJ} [2/3.OBJ.NOM]]] cf. (16a)b. [2.SBJ.NOM [_α t_{SBJ} [3.OBJ.NOM]]] cf. (17a)

(24) NOM-DAT

a. [... [_α 2/3.SBJ.NOM [1.OBJ.DAT]]] cf. (16b)b. [... [_α 3.SBJ.NOM [2.OBJ.DAT]]] cf. (17b)c. [... [_α 3.SBJ.NOM [3.OBJ.DAT]]] cf. Table 3a**?** Why would 2.SBJ move in (23b), but not in (24a)?→ To analyse global case splits in terms of movement, arguments have movement needs to be triggered by the comparison of φ-features – **but how?****3.1.2 Layered φ-features and fine-grained c-command** On a different approach, person is represented as projections on DP (Thomas McFadden, p.c.). (26) derives DAT in Kashmiri.

(25) a. 1P SBJ, 2P OBJ → NOM OBJ

b. 3P SBJ, 2P OBJ → DAT OBJ

(26) If person feature N on DP_1 c-commands person feature N on DP_2 , assign DAT to DP_2 .

- In (16a)/(25a), SBJ's 1P layer **does not c-command** 1P on 2.OBJ → OBJ is NOM
- In (16b)/(25b), SBJ's 3P layer **does c-command** OBJ's 3P layer → OBJ is DAT

? This could arguably be formulated as the higher person phrase probing the lower one?

| ▼ SBJ / ► OBJ | 1 | 2 | 3 |
|---------------|-----|-----|-----|
| 1 | | NOM | NOM |
| 2 | DAT | | NOM |
| 3 | DAT | DAT | DAT |

(a) NOM and DAT on DOs in Kashmiri (IPFV)

| ▼ SBJ / ► OBJ | 1SG | 1PL | 2 | 3 |
|---------------|-----|-----|-----|-----|
| 1SG | | =na | =na | =na |
| 1PL | | | =na | -∅ |
| 2 | =na | =na | | -∅ |
| 3 | =na | =na | =na | =na |

(b) Distribution of ACC =na in Wampis

Table 3: Distribution of NOM/ACC/DAT in Kashmiri (Table 3a) and Wampis (Table 3b)

- But (26) does not work for Wampis or Sahaptin
- (26) derives ACC on third person objects with third person subjects ...
- ... but not with 1SG subjects
- ? Could (27) and (28) be alternatives?



(27) Dependent case rule for Wampis

If a 1SG or 3rd person DP₁ c-commands a 3rd person DP₂, assign DP₂ ACC.

(28) Dependent case rules for Sahaptin (ProxP = [_{ProxP} Prox [_{3P} 3 DP]])

a. If ProxP₁ c-commands ProxP₂, assign ProxP₁ INV.ERG.

b. If 3P₁ c-commands a 3rd person 3P₂, assign 3P₁ OBV.ERG.

→ The rules for Wampis and Sahaptin cannot just rely on c-command

3.2 Deriving global case splits with Agree

→ Using Agree, case assignment has to be “delayed” until after φ -agreement with several arguments (Béjar & Rezac 2009, Keine 2010, Georgi 2012, Bárány 2015, 2017)

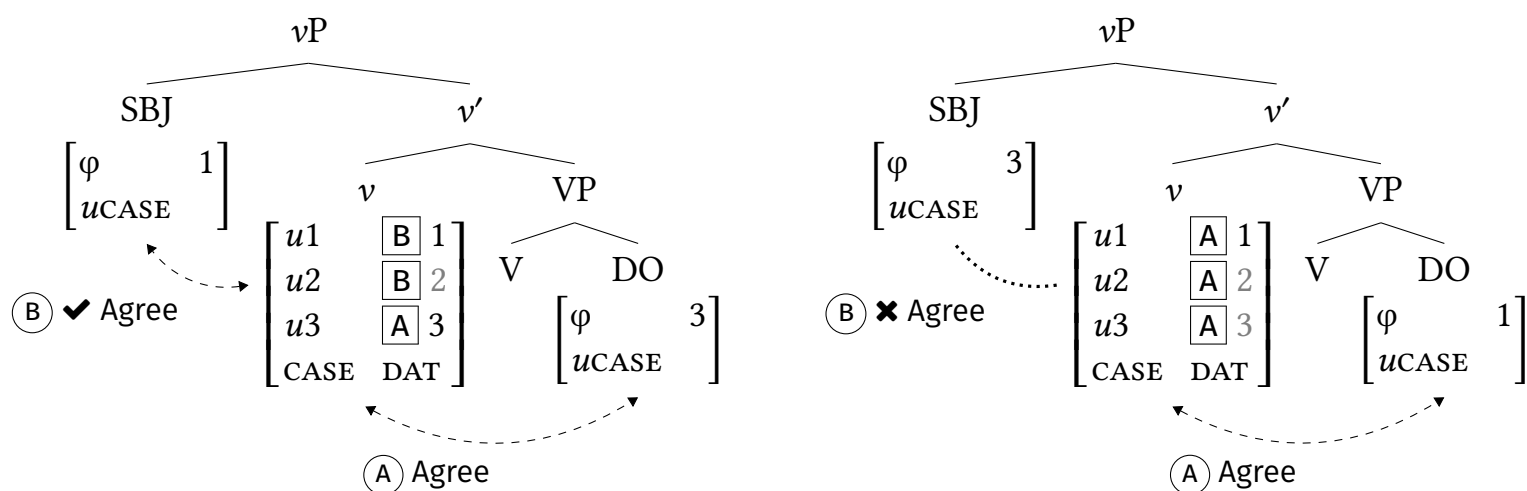
Assumptions

- φ - and case valuation are separate processes (Keine 2010, Georgi 2014)
- Case and person are complex: *sets of features* (Harley & Ritter 2002, Caha 2009)
- Agree is cyclic (Béjar & Rezac 2009): a probe that is not fully valued will probe again
 - A probe stops probing if it is fully valued or cannot find a goal any more
- Impoverishment can apply *in syntax*, strictly locally (Keine 2010)

(29) Person features (Harley & Ritter 2002, Béjar & Rezac 2009)

$$[1] = \begin{Bmatrix} \text{SPEAKER,} \\ \text{PARTICIPANT,} \\ \pi \end{Bmatrix} \supset [2] = \begin{Bmatrix} \text{PARTICIPANT,} \\ \pi \end{Bmatrix} \supset [3] = \{\pi\}$$

(30) Cyclic Agree (Béjar & Rezac 2009)

a. ✓ [1] ⊃ [3]: v valued by SBJ and OBJ b. ✗ [3] ⊂ [1]: v valued by OBJ only**Derivations** Based on these assumptions, there are two types of derivations (Bárányi 2017):

- In **direct** configurations, v agrees with the subject *and* the object, cf. (30a)
 - This feeds impoverishment rule (32) which makes the verb assign NOM instead of DAT
- In **inverse** configurations, v agrees with the object only, cf. (30b)
 - The context for impoverishment rule (32) is not met, the verb assigns DAT

→ v assigns case when its φ -probe cannot enter any Agree relations any more: [$\phi < \text{case}$]

(31) (Relevant) Case features in Kashmiri

NOM: [A] DAT: [A, B]

(32) Impoverishment rule

CASE: [B] → \emptyset / $v[\alpha, \beta]$ (33) v in Kashmiri

$$v \begin{bmatrix} u\phi \\ \text{CASE } \mathbf{A, B} \end{bmatrix}$$

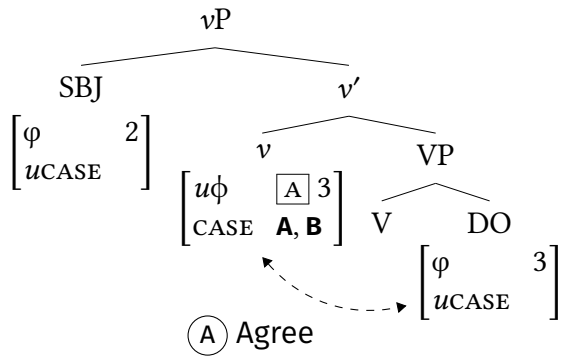
The impoverishment rule in (32) deletes v 's **B** feature and v assigns [A] (= NOM) iff v has been valued by two sets of person features (α, β), i.e. two arguments.

Direct configurations The relevant steps of the deriving (34) are shown in (35).^{3,4}

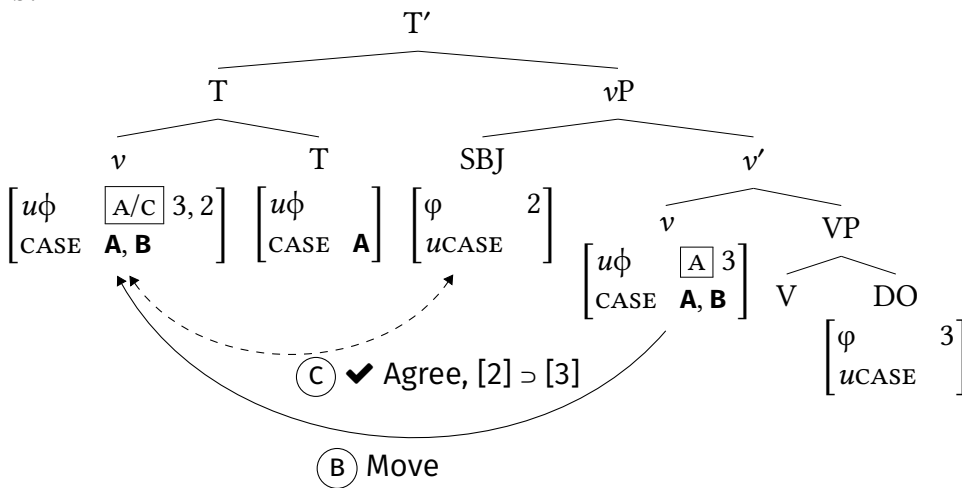
(34) 2nd person SBJ, 3rd person OBJ → OBJ.NOM

tsi chi-h-an su parina:va:n
 you.NOM be-2SG.SBJ-3SG.OBJ he.NOM teach.PTCP.PRS
 ‘You are teaching him.’

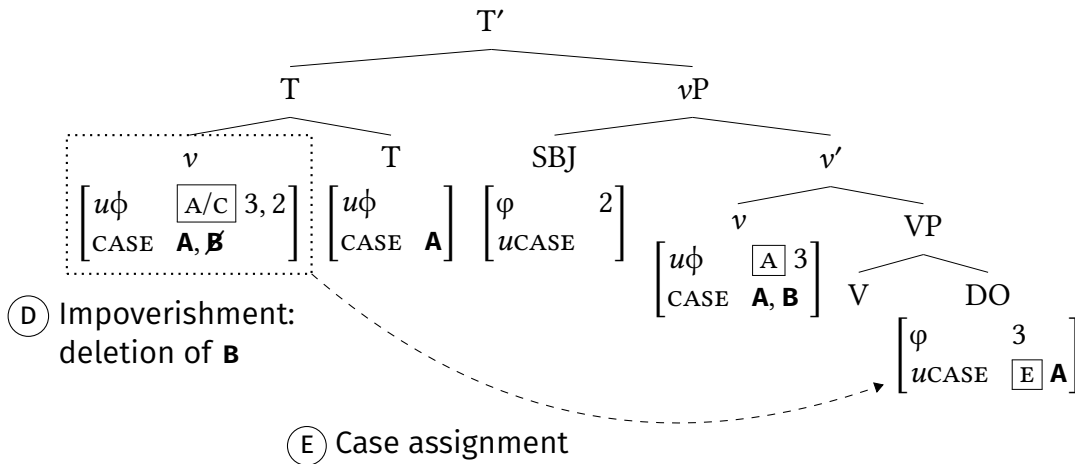
(35) a.



b.



c.



³Case assignment in (35c), (37c) is in accordance with the PIC2, discussed in Chomsky (2001: 14).

⁴v moves to T and on to C in Kashmiri (Bhatt 1999).

The system works in analogous ways for Sahaptin and Wampis (see Appendix B).

Global case splits and dependent case: summary

Global case splits are a challenge for dependent case because ...

- The relative person features of DPs determine case-marking, ...
- ... **not** just c-command or different positions
- Some mechanism must compare ϕ -features of DPs: Agree
- Dependent case rules that are sensitive to ϕ -features of DPs would be redundant ...
- ... and difficult or impossible to state in terms of c-command
- GCSs are a dependent-marking analogue of inverse systems (Rezac 2011, Verbeke 2018)

4 Conclusions

We presented **empirical challenges to dependent case theory**:

- CPs can be case competitors without being case-marked themselves
- Global case splits suggest that agreement feeds case-assignment
 - C-command is not enough
- ? How many modalities of case assignment are there?

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Abbreviations

1 = first person, 2 = second person, 3 = third person, ABS = absolutive, ACC = accusative, APPL = applicative, ASP = aspect, CIS = cislocative, COMP = complementizer, CSC = coordinate structure constraint, DAT = dative, DC = dependent case, DECL = declarative, DET = determiner, DO = direct object, DOM = differential object marking, ERG = ergative, EVID = evidential, F = feminine, FUT = future, GCS = global case split, GEN =

genitive, HIAF = high affectedness aktionsart, INF = infinitive, INS = instrumental, INT = interrogative, INV = inverse, IO = indirect object, IPFV = imperfective, ITV = intransitive verb, LAT = lative, LOC = locative, M = masculine, NEG = negative, NMLZ = nominalizer, NOM = nominative, OBJ = object, OBL = oblique, OBV = obviative, PCC = person case constraint, PFV = perfective, PIC = phase impenetrability condition, PL = plural, POSS = possessive, PROX = proximal, PRS = present, PRT = preterite, PST = past, PTCL = particle, PTCP = participle, REC = recent, REFL = reflexive, SBJ = subject, SBJV = subjunctive, SG = singular, TV = transitive verb, WIT = witnessed.

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A Further challenges

A.1 On the dependent nature of ergative

Nez Perce also has dependent ergatives of the type found in Shipibo ((3)) and Inuit (Yuan 2018).

(38) Nez Perce (Deal 2019: 390)

| | |
|--|---|
| <p>a. <i>Ha-'aayat</i> PL-woman.NOM <i>hi-pa-pay-no'-kom.</i> 3.SBJ-SBJ.PL-COME-FUT-CIS 'The women will come.'</p> | <p>b. <i>Ha-'aayat-om nuun-e</i> PL-woman-ERG 1PL-ACC <i>hi-pa-naas-pay-noo-yo'-kom.</i> 3.SBJ-SBJ.PL-OBJ.PL-COME-APPL-FUT-CIS 'The women will come to us.'</p> |
|--|---|

- Deal (2019: 410–411) discusses an analysis of unaccusative applicatives (in Nez Perce) that does not rely on dependent case — ERG indicates that the verb has agreed with both the object and the subject (see also Deal 2010)
- Clem (2018) and Tyler (2019) provide further evidence against dependent ergative assignment in Amahuaca (Panoan) and Choctaw (Muskogean), respectively

Khanty M. C. Baker (2015) suggests that Eastern Khanty (or Ostyak; Uralic) *-nə* is triggered when an object moves into the same domain as the subject (a DSM pattern analogous to (4)). These data are potentially problematic: “ergative” on the subject is found with objects in various positions, as shown in (39). It is also not clear whether the marker *-nə* is really an ergative marker rather than an information structure marker (Nikolett F. Gulyás, p.c.; F. Gulyás to appear).

(39) Eastern Khanty (Kulonen 1991: 185, 197)

a. *kan-nə kittä jeyilwəl kasi iwänä-ti*
 tsar-**nə** send.INF begin.SBJ.3SG man.NOM Iwan-LAT
 ‘The tsar sends a man to Iwan.’

b. *ni-nə jöyä pämillə-tə kujəl palta*
 woman-**nə** he-DAT show.SBJ.3SG>SG.OBJ man.POSS.SG.3SG coat.NOM
 ‘The woman shows him her husband’s coat’

A.2 Mismatches between alignment and transitivity

Dependent case theory, in its strongest form, predicts fundamentally different alignment patterns to emerge in languages with and without morphological case (see Levin & Preminger 2015, Baker & Bobaljik 2017).

- No ergative agreement alignment without case
- No case-marking in the absence of a case competitor

But there are counterexamples to this view:

- ! Languages without case-marking, in which agreement is sensitive to transitivity, for example Mayan, Jê and Cariban languages (Gildea & Castro Alves 2010), (40)
- ! Languages exhibiting some degree of *split intransitive case*, for example Basque, (41)–(43)

No case marking Coon (2017) argues that for languages without morphological case which exhibit ergative agreement alignment, inherent ergative case is motivated empirically and theoretically.

Q’anjob’al lacks case morphology but displays transitivity-sensitive ergative agreement.

(40) Q’anjob’al (Coon, Mateo Pedro & Preminger 2014: 187)

| | |
|--|--|
| a. <i>Max-ach y-il-a’.</i> ASP-2ABS 3ERG-see-TV ‘She saw you.’ | b. <i>Max-ach way-i.</i> ASP-2ABS sleep-ITV ‘You slept.’ |
|--|--|

Split intransitive case (in Basque) Baker & Bobaljik (2017) argue that true split intransitive ABS/ERG splits do not exist and that aspectual splits and null cognate objects can account for them (but see J. Baker 2018).

Unergative predicates with ERG are said to be underlyingly transitive (Laka 1993, Baker & Bobaljik 2017), the cognate object feeding dependent ERG assignment.

(41) Basque light verb construction (Preminger 2012: 278)

Jon-ek dantza egin d-Ø-u-Ø.
 Jon-ERG dance do 3.ABS-SG.ABS-have-3SG.ERG
 ‘Jon danced.’

This is less clear for “simplex” unergatives (Preminger 2012) and cases of long-distance agreement (Etxepare 2006):

(42) Basque simplex unergative verb (Preminger 2012: 279)

Jon-ek dantzatu d-Ø-u-Ø.
 Jon-ERG dance.PRT 3.ABS-SG.ABS-have-3SG.ERG
 ‘Jon danced.’

(43) Basque long-distance agreement (Etxepare 2006: 333, Preminger’s glosses)

- a. [*Harri horiek altxa-tze-n*] *probatu*
 stone those.PL.ABS lift-NMLZ-LOC attempted
d-u-te / d-it-u-zte.
 3.ABS-have-3PL.ERG 3.ABS-PL.ABS-have-3PL.ERG
 ‘They have attempted to lift those stones.’
- b. [*Harri horiek altxa-tze-n*] *proba egin*
 stone those.PL.ABS lift-NMLZ-LOC attempt do
*d-u-te / *d-it-u-zte.*
 3.ABS-have-3PL.ERG 3.ABS-PL.ABS-have-3PL.ERG
 ‘They have attempted to lift those stones.’

Alignment and transitivity: summary

- Mayan, Jê and Cariban show agreement sensitive to transitivity **in the absence of case**
 - If agreement tracks case, case must be represented abstractly in languages
 - This is not just syncretism: there is no morphological case in the system at all
- A more abstract representation of case is needed, even for dependent case
- The cognate object account of Basque unergative predicates with ERG SBJ is problematic

A.3 DOM and movement

Kalin & Weisser (2018) present evidence *against* a movement analysis of DOM because objects with and without differential case-marking can be coordinated, even in languages in which the coordinate structure constraint (CSC) holds.

B Agree analyses of Sahaptin and Wampis

B.1 Wampis

Like in Kashmiri, we assume that v assigns case to the object when it can no longer probe. v assigns ACC unless the rules in (45) apply.

(44) NOM = [A] ACC = [A, B]

(45) Impoverishment rules

a. CASE: [B] $\rightarrow \emptyset / v[1PL, 3]$

b. CASE: [B] $\rightarrow \emptyset / v[2, 3]$

(46) Vocabulary insertion rules

a. [A] $\leftrightarrow -\emptyset$ (NOM)

b. [A, B] $\leftrightarrow =na$ (ACC)

B.2 Sahaptin

The following is from Bárány (2017), which is heavily influenced by the analysis in Keine (2010). The ERG cases are assigned by T, thus the rules in (48) apply on T. One caveat, pointed out by Johanna Benz (p.c.), is that (48a) must not apply too early — we assume that the rules apply when T has stopped probing.

(47) ERG = [A, B] OBJ = [A, B, C]

(48) Impoverishment rules

a. [A] $\rightarrow \emptyset / T = [3]$

b. [A, B] $\rightarrow \emptyset / T = [PART]$

(49) Vocabulary insertion rules

a. [A, B] $\leftrightarrow -nim$ (INV.ERG)

b. [B] $\leftrightarrow -in$ (OBV.ERG)

c. [A, B, C] $\leftrightarrow -na$ (OBJ)

d. [A] $\leftrightarrow \emptyset$