

Patterns of variation in the expression of case and agreement

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Introduction

Alternations

Many languages (and predicates) show alternations in argument realisation

- Causative alternation: *I opened the door.* / *The door opened.*
- Ditransitive alternation: *I gave Mary the book.* / *I gave the book to Mary.*

Alternations can affect both m(orphological)-case and agreement

(1) Synja Khanty (Uralic; F. Gulyás 2015a,b)

a. *ānt'e-l* [R *ńāwrem-al-a*] [T *ńāń*] *ma-l*
 mother-3SG.POSS child-3SG.POSS.SG-LAT bread.NOM give-PRS.3SG

'The mother gives bread to her child.'

b. *mā* [R *ńāwrem*] [T *ńāń-ən*] *ma-l-em*
 I child.NOM bread-LOC give-PRS-1SG.SBJ>SG.OBJ

'I am giving bread to the child.'

Alternations not affecting m-case

Alternations can co-occur with, but independently of m-case as well ...

(2) Ngkolmpu (Yam; Carroll 2016: 149, glosses simplified)

- a. *Markus-w* [_T *pr kati*] [_R *nson*] *b-mae-y*
 Markus-ERG tree leaf.ABS 1SG.DAT **1SG.OBJ**-give-SG.SBJ.HOD
 'Markus gave me the money (earlier today).'
- b. *Markus-w* [_T *ngko*] [_R *Jon-en*] *b-re-y*
 Markus-ERG 1SG.ABS John-DAT **1SG.OBJ**-send-SG.SBJ.HOD
 'Markus sent me to John (earlier today).'

Alternations without m-case

... and alternations can be completely independent of m-case

(3) Bembe (Bantu; Iorio 2015: 105–106)

a. *twa-ba-h-ile* [_T *bokyo*]

1PL-2.OM-give-PST 14.money

'We gave **them** money.' (*batu* 'the people')

b. *twa-bo-h-ile* [_R *batu*]

1PL-14.OM-give-PST 2.person

'We gave **it** to people.' (*bokyo* 'the money')

Today's talk



- Do such alternations have a common core? Case?
- What patterns underlie them across languages?
- What's the role of morphological case and abstract Case?
- What factors determine case and agreement in alternations?



- Alternations with m-case
- Alternations *without* m-case
- Conclusions

Alternations with m-case

The cases of Khanty

Khanty and Mansi (Ob-Ugric; Uralic) have m-case and object agreement

- Objects of transitive verbs (P) are NOM or ACC (for pronouns)
- All varieties allow agreement with the NOM/ACC object
- Object agreement is **differential**

(4) Northern Khanty (Nikolaeva 1999: 65)

ma [_P *naŋ-e:n*] *wa:n-s-ə-m* / *wa:n-s-e:m*
 I you.SG-ACC see-PST-1SG.SBJ see-PST-1SG.SBJ>SG.OBJ
 'I saw you.'

More cases of Khanty

In ditransitives, **T** or **R** can be NOM/ACC — only NOM/ACC can agree

(5) Sinyja Khanty (F. Gulyás 2015a,b)

a. *ānt'e-l* [_R *ńāwrem-al-a*] [_T *ńāń*] *ma-l*
 mother-3SG child-3SG.POSS.SG-LAT bread.NOM give-PRS.3SG

'The mother gives bread to her child.'

b. *mā* [_R *ńāwrem* / *naŋ-en*] [_T *ńāń-ən*] *ma-l-em*
 I child.NOM you-ACC bread-LOC give-PRS-1SG.SBJ>SG.OBJ

'I am giving bread to the child / to you.'

Differential agreement

Agreement in Khanty is **differential**: only **some** objects control agreement

(6) Northern Khanty (Dalrymple & Nikolaeva 2011: 146 = [D&N2011])

Context: *What did you do to this reindeer?*

a. [_p *tam kalaŋ*] *we:l-s-**e:m*** / **we:l-s-ə**m*
 this reindeer kill-PST-1SG.SBJ>SG.OBJ kill-PST-1SG.SBJ
 ‘I killed this reindeer.’

b. *we:l-s-**e:m*** / **we:l-s-ə**m*
 kill-PST-1SG.SBJ>SG.OBJ kill-PST-1SG.SBJ
 ‘I killed it.’

? So what triggers differential object agreement?

Is DOA due to information structure?

Differential object agreement (DOA) in Khanty seems to be sensitive to topicality (Nikolaeva 2001)

(7) Northern Khanty (Nikolaeva 2001: 17, 30)

a. [_P *mati kalaŋ*] *we:l-əs* / **we:l-s-əlli?*
 which reindeer kill-PST.3SG.SBJ kill-PST-3SG.SBJ>SG.OBJ
 'Which reindeer did he kill?'

b. Context: *What did John do to Peter?*

luw [_P *Pe:tra* / *luw-e:l*] *re:sk-əs-li* / **re:sk-əs*
 he Peter.NOM he-ACC hit-PST-3SG.SBJ>SG.OBJ hit-PST.3SG.SBJ
 'He hit Peter/him.'

Is DOA *always* due to information structure?

Not always... a causee object has to agree, even when in focus.

(8) Northern Khanty (D&N2011: 149)

Context: *Whom did he make cry?*

- a. [_{CAUS} *ma:ne:m*] *xo:llə-ptə-s-li* / **xo:llə-ptə-s*
 I.ACC cry-CAUS-PST-3SG.SBJ>SG.OBJ cry-CAUS-PST-3SG.SBJ
 'He made me cry.'
- b. [_{CAUS} *Pe:tra*] *xo:llə-ptə-s-li* / **xo:llə-ptə-s*
 Peter.NOM cry-CAUS-PST-3SG.SBJ>SG.OBJ cry-CAUS-PST-3SG.SBJ
 'He made Peter cry.'

Is DOA *always* due to information structure? (continued)

ACC R arguments also must agree, independently of information structure.

(9) Northern Khanty (D&N2011: 148)

a. *ma* [_T *a:n*] [_R *Pe:tra e:lti*] *ma-s-e:m* / *ma-s-ə:m*.
 I cup.NOM Peter to give-PST-1SG.SBJ>SG.OBJ give-PST-1SG.SBJ
 'I gave a/the cup to Peter.'

b. *ma* [_R *Pe:tra*] [_T *a:n-na*] *ma-s-e:m* /**ma-s-ə:m*.
 I Peter.NOM cup-LOC give-PST-1SG.SBJ>SG.OBJ give-PST-1SG.SBJ
 'I gave a/the cup to Peter', cf. 'I provided Peter with a cup.'

? If it's not information structure (IS)... what *does* determine object agreement?

Grammatical functions

D&N2011: **grammatical function (GF)** determines object agreement

- In LFG, GFs (SUBJ, OBJ, OBL, POSS, ...) are primitives
- DOs have a restricted OBJ_θ GF (cf. Bresnan & Kanerva 1989)
- IOs, i.e. recipients, causees, and **certain themes/patients**, have the OBJ GF
- D&N2011: Topical theme/patient objects are OBJ
- ✓ The **OBJ GF** requires **object agreement**
 - Agreeing objects can control into AN clauses, float quantifiers, ...

Object *position* instead of GF?

Nikolaeva (2001) suggests that agreeing objects are VP-external

- Agreeing theme/patient objects often precede other objects

(10) Sinya Khanty (Arkad'ij Longortov, p.c.); VP-external position of theme

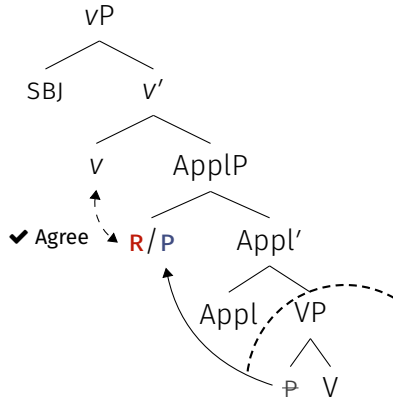
- a. [_P *śajan*] χǒlta tu-s-en?
 tea cup.ACC where take-PST-2SG.SBJ>SG.OBJ
 'Where did you take the cup?'
- b. [_T *śajan*] [_R *Petra-ja*] mǎ-s-em.
 tea cup.ACC Peter-DAT give-PST-1SG.SBJ>SG.OBJ
 'I gave the cup to Peter.'

- Bárány (2016, to appear), Smith (to appear): **position of OBJ** is the trigger

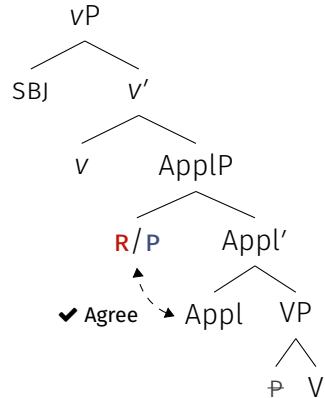
Object position as a trigger

All agreeing objects are “high”, i.e. outside of VP

(11)



Smith (to appear): *v* agrees downwards,
VP is a “hard phase”, not accessible



Bárány (2016, to appear):
Appl agrees with its Spec

Interim summary: Object agreement in Khanty

At first glance, Khanty DOA looks like its sensitive to topicality

- But this only holds for themes/patients and there are other factors
- ? GF or movement?
- Depends on independent evidence (and your framework of choice...)
- **GFs are notoriously fuzzy**: sometimes they fit well, sometimes they do not

Clear restrictions in Khanty:

- m-case restricts agreement: only ACC objects can agree
- Topic status correlates with agreement for theme/patient

Alternations *without* m-case

Alternations without morphological case

There are agreement alternations **without** or **independently of m-case**

- Some languages have “symmetric” object agreement...
- ... and other symmetric or asymmetric operations
- ❓ To what degree are these a consequence of Case?
- ❓ If we do not see Case, is it there?

Abstract Case in the absence of morphological case

There is evidence for abstract Case without morphological expression (Legate 2008, Sheehan & van der Wal 2016, 2018, Coon 2017)

(12) Q'anjob'al (Mayan; Coon, Mateo Pedro & Preminger 2014: 187)

a. Max-*ach* way-i.

ASP-2ABS sleep-ITV

'You slept.'

b. Max-*ach* y-il-a'.

ASP-2ABS 3ERG-see-TV

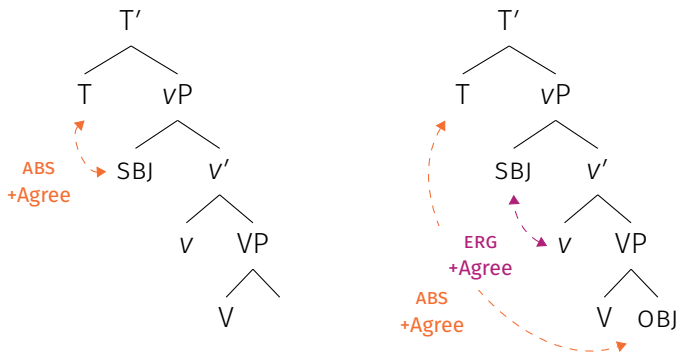
'She saw you.'

- Mayan languages show **ergative agreement alignment without m-case**
- ? Evidence for **abstract (inherent) ergative Case?**

Case-sensitive agreement without m-case

Subjects get Case in different ways in Mayan

(13)



- ERG is assigned by *v* and *v* spells out ERG agreement
- ? A model for ditransitives in Bantu?

Abstract Case in ditransitives?

Abstract Case could be involved in object agreement symmetry

(3) Bembe (Bantu; Iorio 2015: 105–106)

a. *twa-ba-h-ile* [_T *bokyo*]

1PL-2.OM-give-PST 14.money

'We gave **them** money.' (*batu* 'the people')

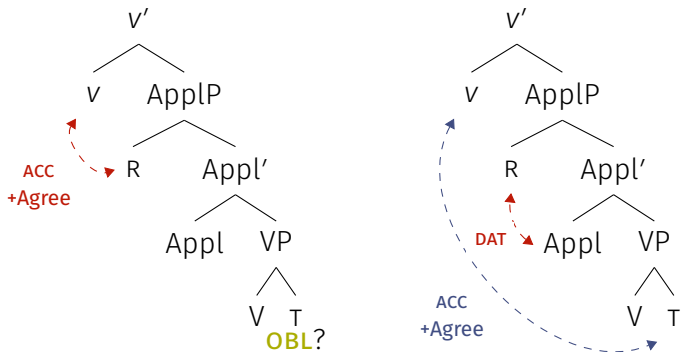
b. *twa-bo-h-ile* [_R *batu*]

1PL-14.OM-give-PST 2.person

'We gave **it** to people.' (*bokyo* 'the money')

Abstract Case in ditransitives? (continued)

(3')



- DAT is inherent case assigned by Appl
- Like in Khanty, only ACC can agree — T gets oblique Case?

Abstract Case alternations in ditransitives

Bembe could show the same alternation as Khanty, only **abstractly**

- Bembe has LOC noun classes and prepositions
- ? Which abstract Cases are involved?
- ? How many abstract Cases are too many?
- ! There's another factor: information structure

Information structure alternations in ditransitives

Bantu OMs are often triggered by topical objects (see Bresnan & Mchombo 1987, Iorio 2015, van der Wal to appear and many others)

? Is the topical object assigned ACC...?

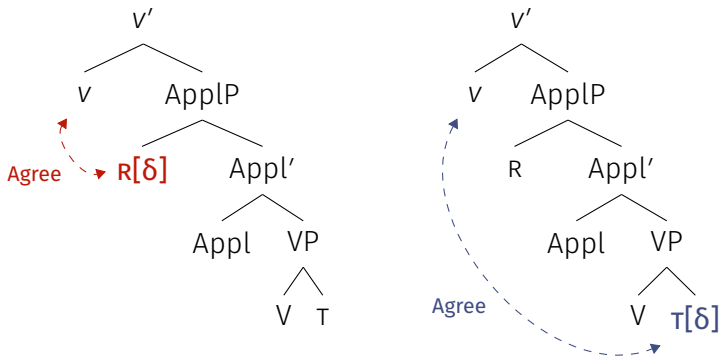
? ... while the other object gets a more oblique Case?

- A more direct way is to only **agree with a topical object**
- Probes can be **relativised** to particular features (see e.g. Nevins 2007, 2011)
- E.g. only 3rd (Tundra Nenets, Nikolaeva 2014) or only 1st/2nd (Georgi 2012)
- Miyagawa (2017): discourse-configurational features (δ) are part of syntax, too

Relativized agreement in δ -features

In the simplest case, v will agree with the object that carries $[\delta]$

(14)



- Arguments are licensed by the head that introduces them (no need for Case)
- Locality plays a role: v sees higher object first

Deriving patterns of agreement

Which patterns does relativized probing have to account for?

- Asymmetric object agreement: Chichewa, ...
- Symmetric object agreement: Bembe, Zulu, ...
- Ideally, some cross-linguistic regularities involving (a)symmetry
- Deal (2015): probes have **interaction** (F) and **satisfaction** (G) features
- A probe halts when it is valued by its satisfaction feature
- Interaction features value a probe, but do not halt probing
- Interaction and satisfaction features represented as sets F and G

Asymmetric object agreement: Chichewa

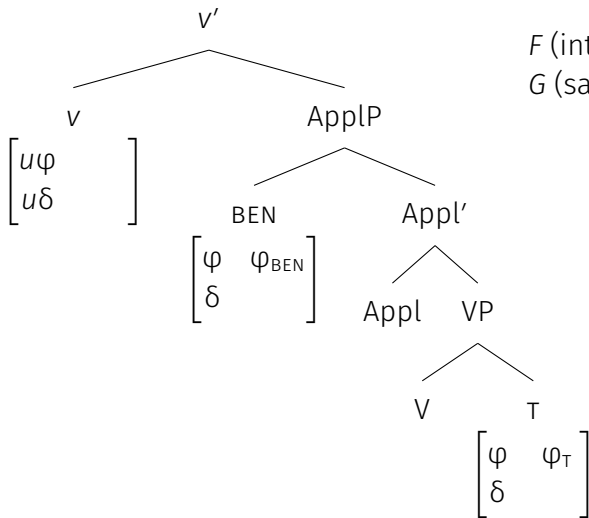
Bresnan & Mchombo (1987) argue that OMs in Chichewa are sensitive to topicality

(15) Chichewa (Mchombo 2004: 80, 83)

- a. *Alenje a-ku-phík-íl-á* [APPL *anyaní*] [T *zítumbûwa*].
 2.hunters 2.SM-PRS-COOK-APPL-FV 2.baboons 8.pancakes
 'The hunters are cooking (for) the baboons some pancakes.'
- b. *Alenje a-ku-wá-phík-íl-á* [T *zítumbûwa*] ([APPL *anyáni*]).
 2.hunters 2.SM-PRS-2.OM-COOK-APPL-FV 8.pancakes 2.baboons
 'The hunters are cooking (for) them (the baboons) some pancakes.'
- c. **Alenje a-ku-zí-phík-íl-á* [APPL *anyáni*] ([T *zítumbûwa*]).
 2.hunters 2.SM-PRS-8.OM-COOK-APPL-FV 2.baboons 8.pancakes

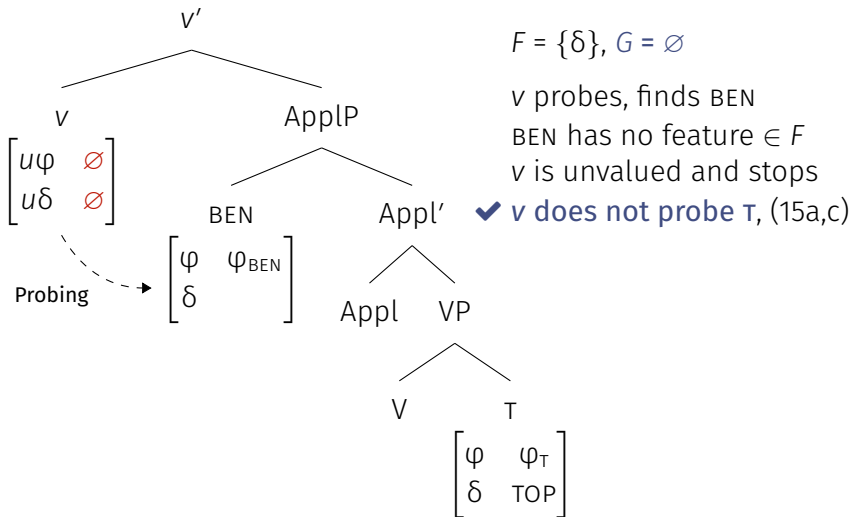
Asymmetric object agreement and relativised probing

(16) a.

 F (interaction) = $\{\delta\}$ G (satisfaction) = \emptyset

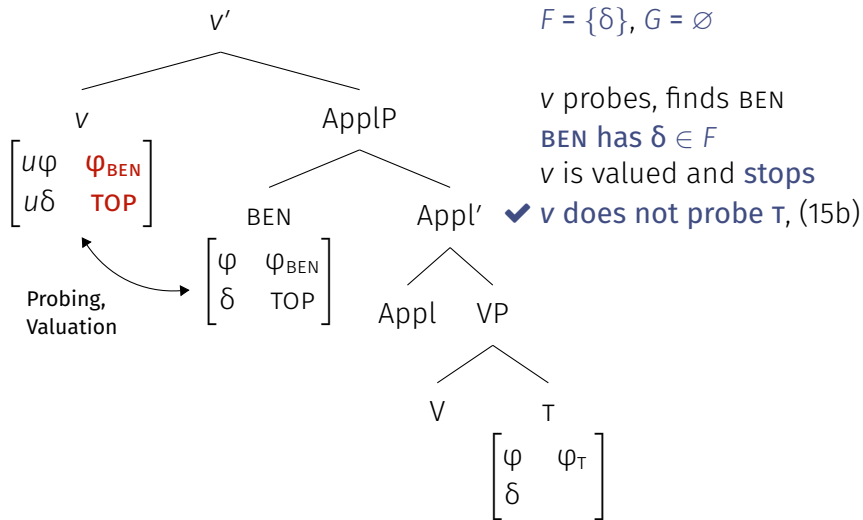
Asymmetric object agreement and relativised probing

(16) b.



Asymmetric object agreement and relativised probing

(16) c.



Symmetric object agreement: Bembe, Zulu, ...

In Bembe (cf. (3)) and Zulu, too, topicality plays a role

(17) Zulu (Adams 2010: 115–116)

a. *U-mama u-ba-nik-e* [T *in-cwadi*] [R *aba-ntwana*]
 1A-mama 1A.SM-2.OM-give-PRF 9-book 2-child

‘Mamma gave **the children** a book.’

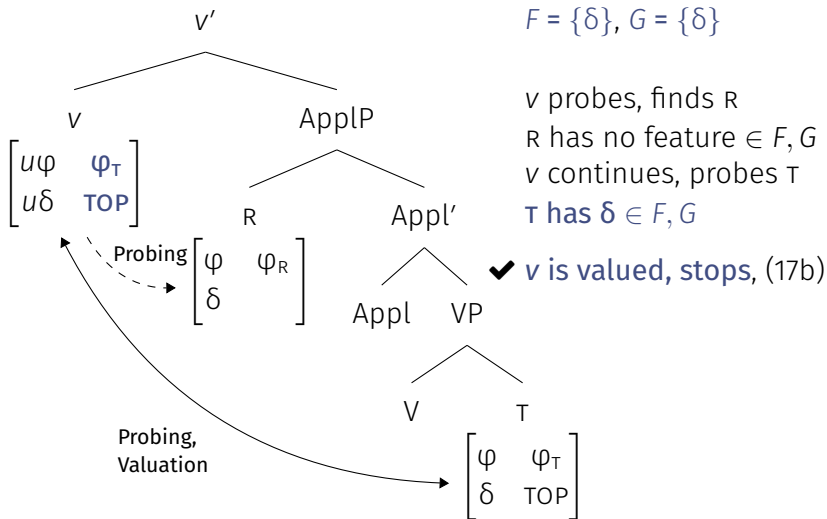
b. *U-mama u-yi-nik-e* [R *aba-ntwana*] [T *in-cwadi*]
 1A-mama 1A.SM-9.OM-give-PRF 2-child 9-book

‘Mamma gave the children **a book**.’

- ✓ Symmetry can be captured with interaction and satisfaction features

Symmetric object agreement and relativised probing

(18) b.



(A)symmetry in object agreement: summary

(A)symmetry can be modelled as a consequence of features on v

- $v_{\{\delta\},\emptyset}$ is asymmetric: probes once and stops
- $v_{\{\delta\},\{\delta\}}$ is symmetric: only stops when it finds δ
- Whichever head selects CAUS, a high, or low APPL determines (a)symmetry
- ? Can this account for the distribution of (a)symmetry?

A possible extension: FLUID

Van der Wal (2017, to appear) shows that “partial symmetry” is regular

(19) FLUID (my wording)

If a construction involving head H is symmetric, constructions with heads lower than H are also symmetric

	CAUS	APPL	DITRANS	Languages
Type 1	■	■	■	Zulu, Shona, Kĩitharaka, Kimeru, Kikuyu
Type 2	■	■	■	Otjiherero, Southern Soto, Lubukusu
Type 3	■	■	■	Luguru
Type 4	■	■	■	Swahili, ... (asymmetric)

Figure 1 Variation in object marking symmetry across Bantu (van der Wal to appear)

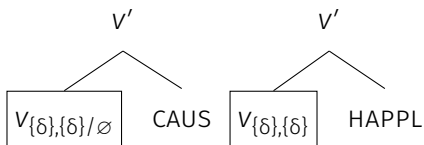
The FLUID and selection

The FLUID can be stated as a consequence of selection by $v_{\{\delta\},\emptyset}$ or $v_{\{\delta\},\{\delta\}}$

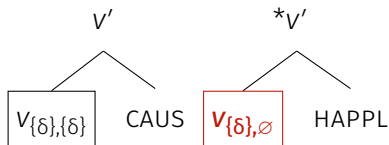
(20) The FLUID and selection

- a. If head H in the extended projection of V ($\{\text{LAPPL}, \text{HAPPL}, \text{CAUS}\}$), is selected by $v_{\{\delta\},\{\delta\}}$, all lower heads in the extended projection of V are also selected by $v_{\{\delta\},\{\delta\}}$. (= symmetry for H and lower heads)
- b. Otherwise, every head H in the extended projection is selected by $v_{\{\delta\},\emptyset}$. (= asymmetry for heads not captured by (20a))

(21) Licit selection



(22) Illicit selection



Conclusions

Conclusions: what constrains alternations?

- The role of IS can be **indirect**, like in Khanty
- ✓ • Agreement in Khanty is constrained by **m-case and locality**
- IS arguably motivates the alternations feeding agreement

- In Bantu, IS interacts with object marking **more directly**
- ✓ • **Relativised probing** can derive symmetric and asymmetric OM
- In this domain, this is **possible without reference to Case**

Thank you!

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Abbreviations 1 = first person, 2 = second person, 3 = third person, ABS = absolutive, ACC = accusative, AN = action nominal, APPL = applicative, ASP = aspect, BEN = benefactive, CAUS = causative, DAT = dative, DO = direct object, DOA = differential object agreement, ERG = ergative, FV = final vowel, GF = grammatical function, HAPPL = high applicative, HOD = hodiernal past, IO = indirect object, IS = information structure, ITV = intransitive verb, LAPPL = low applicative, LAT = lative, LFG = Lexical-Functional Grammar, LOC = locative, NOM = nominative, OBJ = object, OBL = oblique, OM = object marker, P = patient-like argument of a canonical transitive verb, PL = plural, POSS = possessive, PRF = perfect, PRS = present, PST = past, R = recipient-like argument of a ditransitive verb, SBJ = subject, SG = singular, SM = subject marker, T = theme- or patient-like argument of a ditransitive verb, TOP = topic, TV = transitive verb.

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