

Multiple feature inheritance makes polysynthesis

Evidence from West Circassian nominalizations

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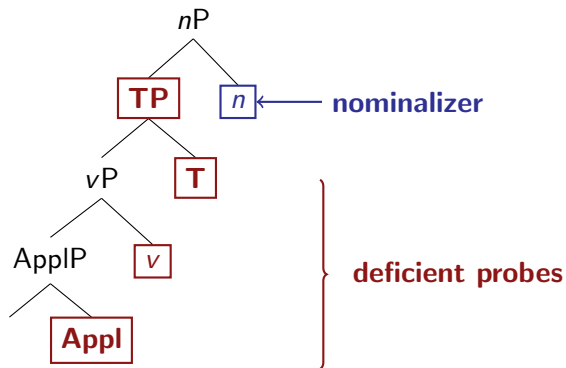
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The main claim

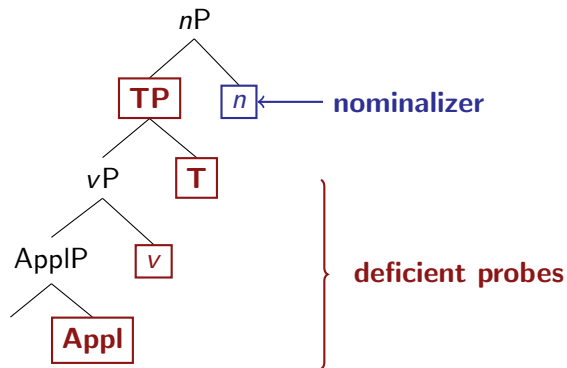
- ▶ Polypersonal polysynthetic agreement is licensed by **long-distance feature inheritance**.
- ▶ In **West Circassian**, agreement on lower verbal heads is licensed by C^0 .
- ▶ **Evidence** from nominalizations with deficient functional structure.

Nominalizations

- ▶ verbal extended projection embedded under nominalizer
- ▶ includes high functional structure up to T^0
- ▶ displays deficient verbal agreement



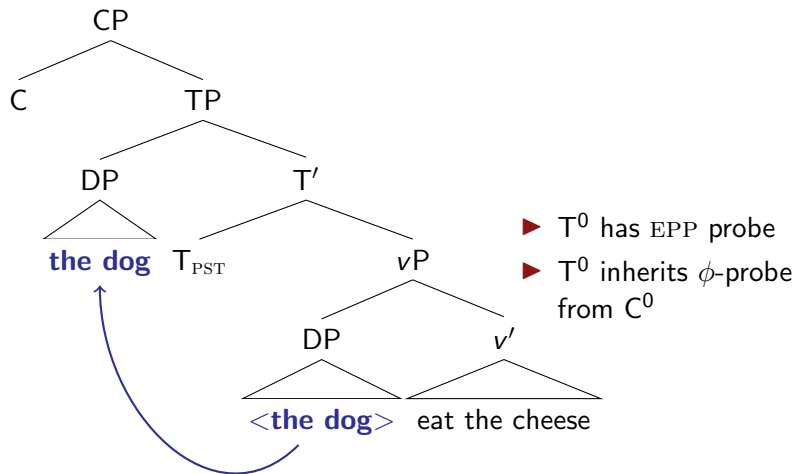
Multiple feature inheritance



- ▶ verbal Agree probes are deficient unless embedded under C^0
- ▶ ϕ -agreement is **licensed** by C^0
- ▶ multiple feature inheritance via Agree

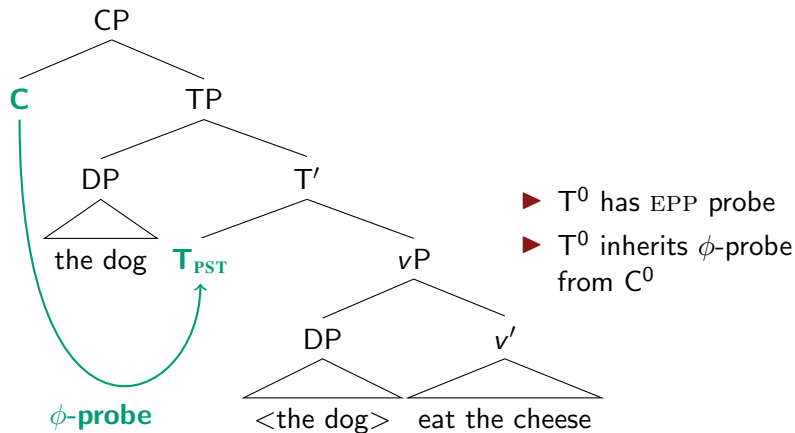
C-to-T feature inheritance

Chomsky (2000, 2001) on English:



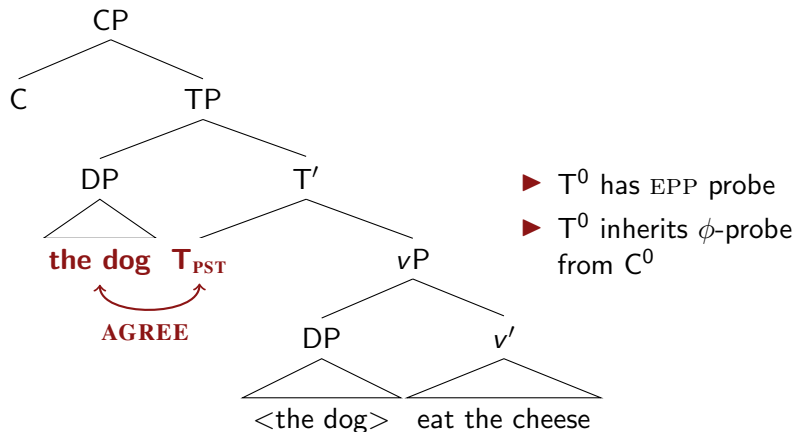
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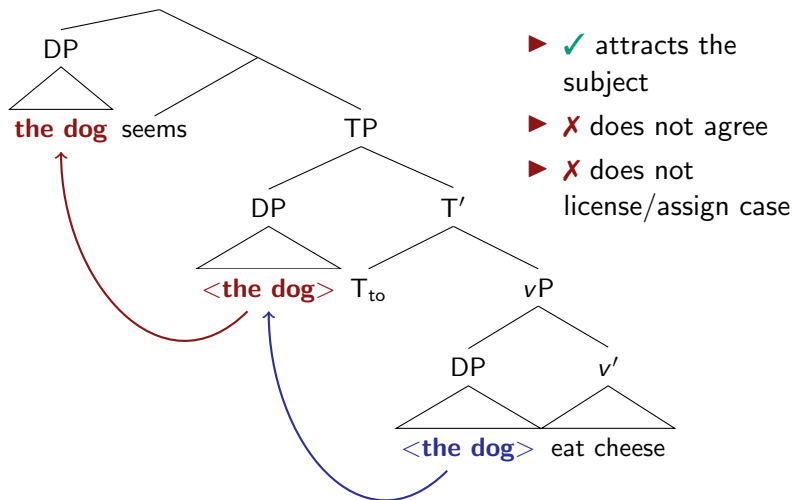
C-to-T feature inheritance

Chomsky (2000, 2001) on English:

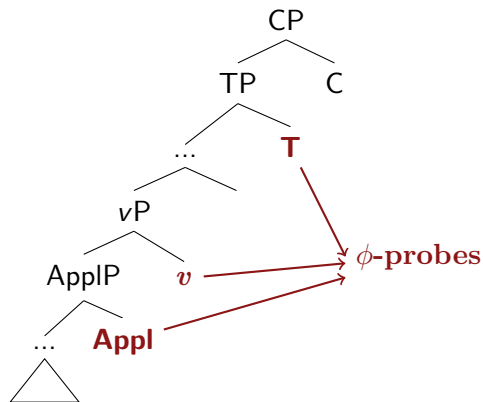


T^0 is a defective EPP probe

No $C^0 \Rightarrow$ infinitival T^0 is a **defective probe**:



Multiple feature inheritance by Agree



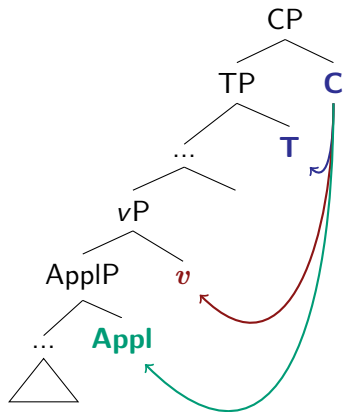
- ▶ polypersonalism \Rightarrow multiple ϕ -probes
- ▶ multiple heads inherit ϕ -probe from C^0

Feature inheritance can be

- ▶ long-distance
- ▶ to >1 head

\Rightarrow **via Agree**

Multiple feature inheritance by Agree



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Feature inheritance can be

▶ long-distance

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\Rightarrow **via Agree**

West Circassian (or Adyghe):

- ▶ Northwest Caucasian
- ▶ Republic of Adygea, Russia
- ▶ agglutinating, polysynthetic
- ▶ ergative case and agreement

Data from fieldwork on **Temirgoy dialect** in the Shovgenovsky district of Adygea.

- ▶ TP structure
- ▶ Functional structure of nominalizations
- ▶ Multiple feature inheritance

West Circassian is polysynthetic

Head marking and pro-drop:

səqəpfarjəβeλeβ^wəβ

| | | | | | | | |
|--------------------|------|----------------------|--|----------------|--|-----------|-------|
| me | | for your sake | | to them | | he | |
| ↓ | | ↓ | | ↓ | | ↓ | |
| sə- | qə- | p-f- | | a-r- | | jə- | βe- |
| 1SG.ABS- | CIS- | 2SG.IO+BEN- | | 3PL.IO+DAT- | | 3SG.ERG- | CAUS- |
| λeβ ^w ə | -β | | | | | | |
| see | | | | | | | |
| | | | | | | | -PST |

‘He showed me to them for your sake.’

(Korotkova and Lander 2010:301)

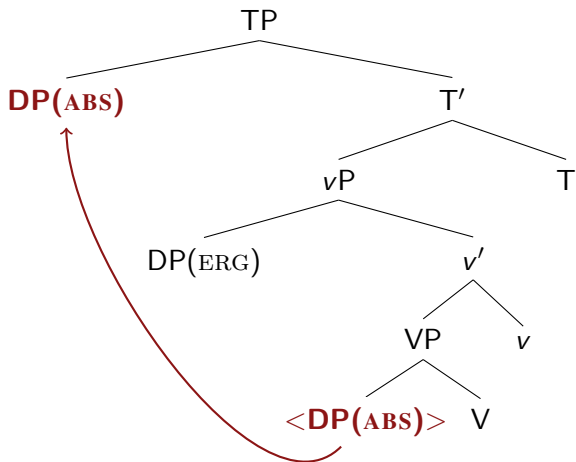
Order of cross-reference markers:

ABS- **(IO+APPL-)*** **ERG-**

- ▶ DP_{ABS} moves to Spec,TP
- ▶ evidence from parasitic gaps and reciprocal binding (Ershova 2019a,b)
- ▶ E.g. Bittner and Hale (1996); Manning (1996); Baker (1997); Aldridge (2008); Yuan (2018); Coon et al. (to appear)

Structure of TP

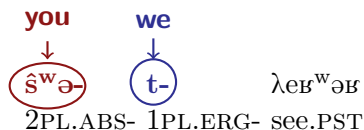
E.g. for a transitive (ERG-ABS) verb:



Reciprocals provide evidence for high absolutive:

- ▶ reciprocals are bound by a c-commanding antecedent
- ▶ **ABS** binds **ERG** \Rightarrow **ABS** c-commands **ERG**

ABS binds **ERG**:



BASELINE

'We saw you(pl).'

Reciprocals provide evidence for high absolutive:

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- ▶ **ABS** binds **ERG** \Rightarrow **ABS** c-commands **ERG**

ABS binds **ERG**:

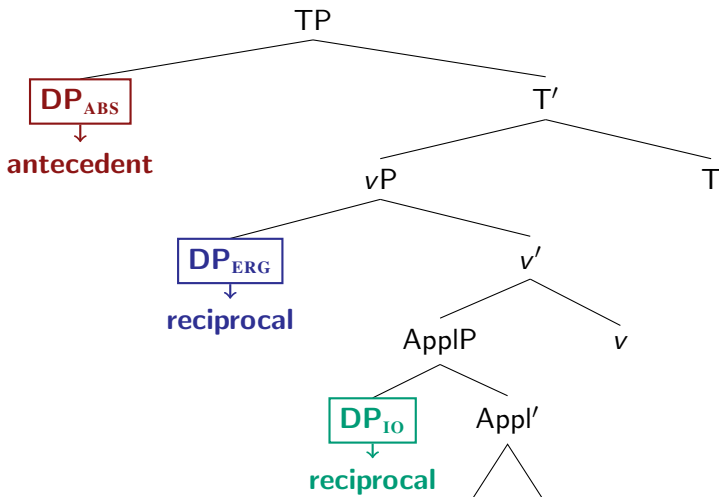
we **each other**
↓ ↓
tə- **zere-** $\lambda e\mathcal{B}^w\mathcal{O}\mathcal{B}$
IPL.ABS- REC.ERG- see.PST

RECIPROCAL

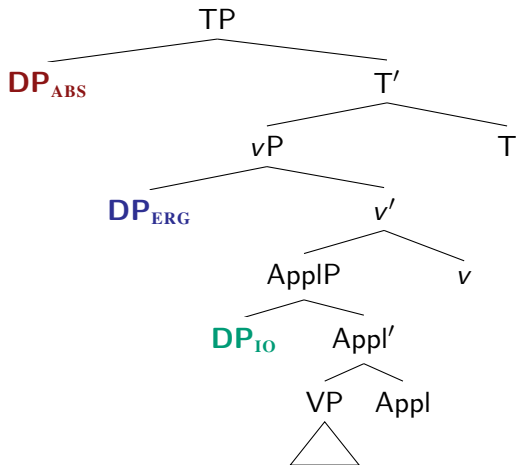
'We saw each other.'

Reciprocals and syntactic ergativity

ABS binds reciprocals in **ERG** and **IO** positions:



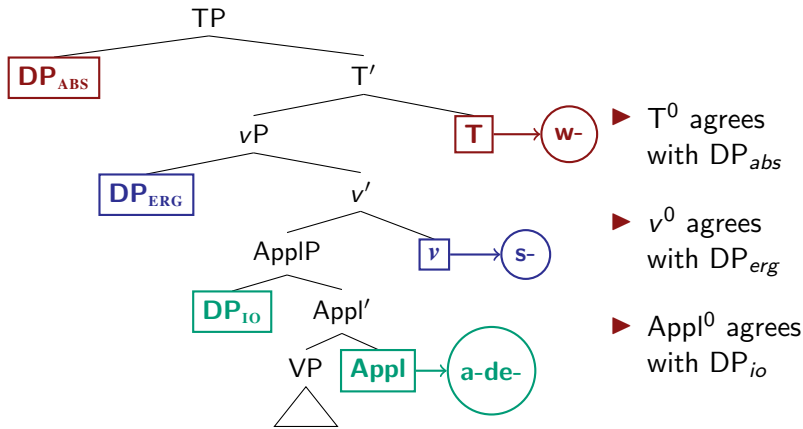
Summary: West Circassian is high absolutive



Verbal ϕ -agreement

w- **a-de-** **s-** š'ab
2SG.ABS- **3PL.IO-COM-** **1SG.ERG-** bring.PST

'I brought you with them.'



- ▶ TP structure
- ▶ **Functional structure of nominalizations**
- ▶ Multiple feature inheritance

Noun phrase structure

- ▶ ϕ -agreement with possessor
- ▶ complements and modifiers incorporated

ja- **xebze-** bzəpχe
3PL.POSS- rule- example

'their legal example'

Nominalizations: deficient verbal extended projection

Ershova (2020b)

- ▶ arguments as possessors or incorporated

⇒ no verbal licensing/case

- ▶ no tense/mood marking

- ▶ no verbal ϕ -agreement

→ possessor ϕ -agreement

| | | | | | |
|--------------------|--------------|-----------------|-------------|--------|---------------|
| laβe-xe-r | ∅- | s- | e- | thač'ə | FINITE |
| dish-PL-ABS | 3ABS- | 1SG.ERG- | PRS- | wash | |

'I am washing dishes.'

| | | | | |
|------------------|--------------|--------|------|-----------------------|
| wjə- | leβe- | thač'ə | -č'e | NOMINALIZATION |
| 2SG.POSS- | dish- | wash | -NML | |

'your manner of washing dishes'

Verbal functional structure in nominalizations

- ▶ no verbal ϕ -agreement
- ▶ no verbal case/licensing
- ▶ **BUT** includes structure up to TP

Evidence:

1. morphological reflexes of v^0 and Appl^0
2. anaphor agreement
3. high absolutive

v and Appl are present in nominalizations

- ▶ nominalizations include causatives

jə- xebze- **ɛe-** k̚^wedə -č'e
3SG.POSS- rule- **CAUS-** perish -NML

‘its destruction (= causing to perish) of traditions’

- ▶ nominalizations include applicatives

ja- haž^wə- **de-** žeg^wə -č'e
3PL.POSS- puppy- **COM-** play -NML

‘their way of playing with puppies’

Nominalizations allow anaphor agreement

► reciprocal agreement **with applicative**

axer Ø- **ze-f-** e- g^wəʔež'ə -x
they.ABS 3ABS- **REC.IO-BEN-** PRS- endeavor -PL

‘They work hard for each other.’

finite

ja- **ze-fe-** g^wəʔež'ə -č'e
3PL.POSS- **REC.IO-BEN-** endeavor -NML

‘their manner of working hard for each other’

nominalization

Nominalizations allow anaphor agreement

- ▶ reciprocal agreement **with ergative**

⇒ DP_{ABS} binds DP_{ERG}

⇒ **high absolutive**

∅- **qe-** **zer-** e- ʙe- š^we -ž'ə -x
3ABS- **CIS-** **REC.ERG-** PRS- CAUS- dance -RE -PL

'They are making each other dance.'

finite

ja- **qe-** **zere-** ʙe- š^wa -č'e
3PL.POSS- **CIS-** **REC.ERG-** CAUS- dance -NML

'their manner of making each other dance'

nominalization

Nominalizations contain a full TP

- ▶ Ergative reciprocal bound by high DP_{ABS}
- ▶ (+ possibility of clausal and some types of temporal adjuncts
→ Appendix)

If nominalizations contain full TP,
why is the verbal syntax so diminished?

- ▶ only anaphor agreement, no regular ϕ -agreement
- ▶ no verbal case or licensing

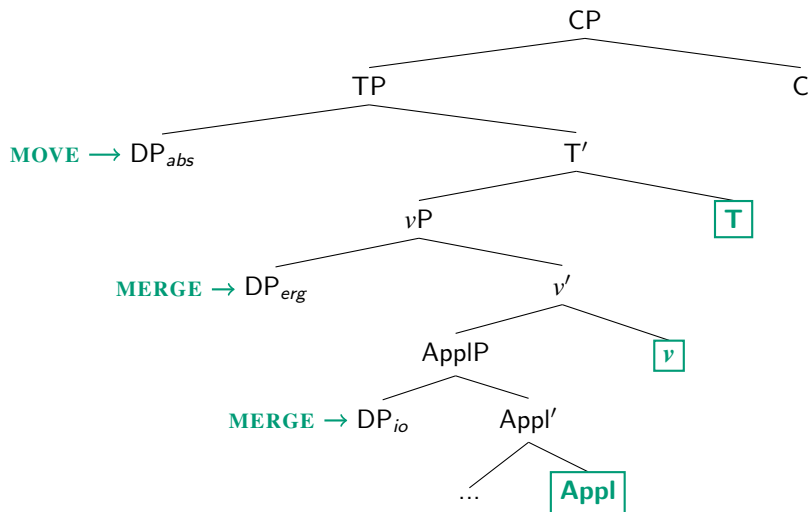
ϕ -probes must be licensed by C^0
 \Rightarrow feature inheritance via Agree

- ▶ Background on West Circassian
- ▶ TP structure
- ▶ Functional structure of nominalizations
- ▶ Multiple feature inheritance

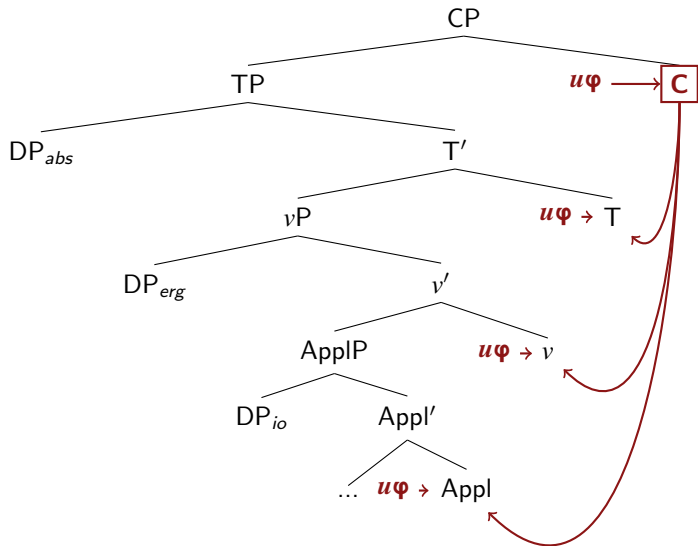
axeme žanexer Ø- ze-f- a- dəž'əš't
they(ERG) dresses(ABS) 3ABS- REC.IO-BEN- 3PL.ERG- sew.FUT

'They will sew dresses for each other.'

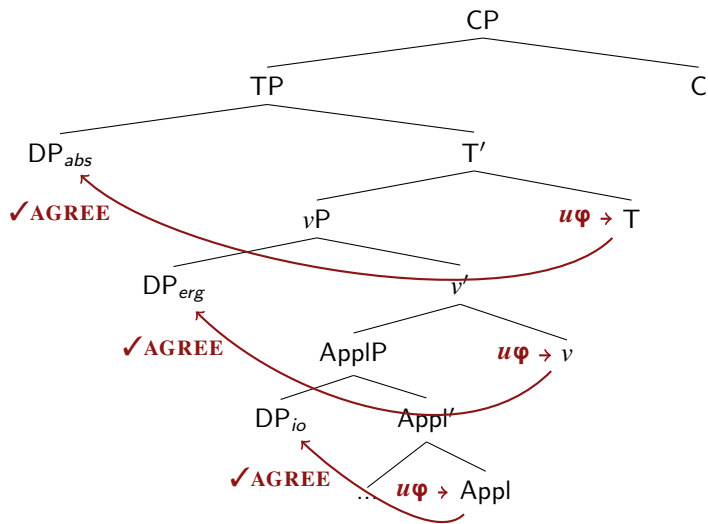
φ -agreement licensed by C^0



φ -agreement licensed by C^0



φ -agreement licensed by C^0

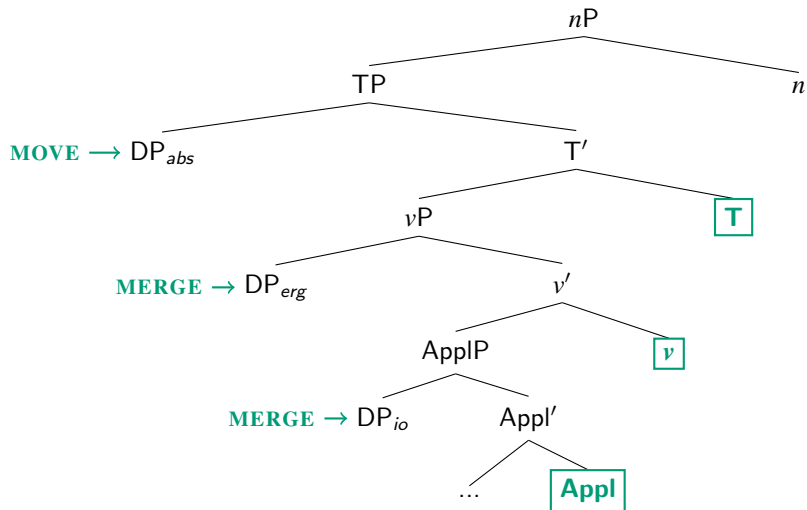


Deficient φ -agreement without C^0

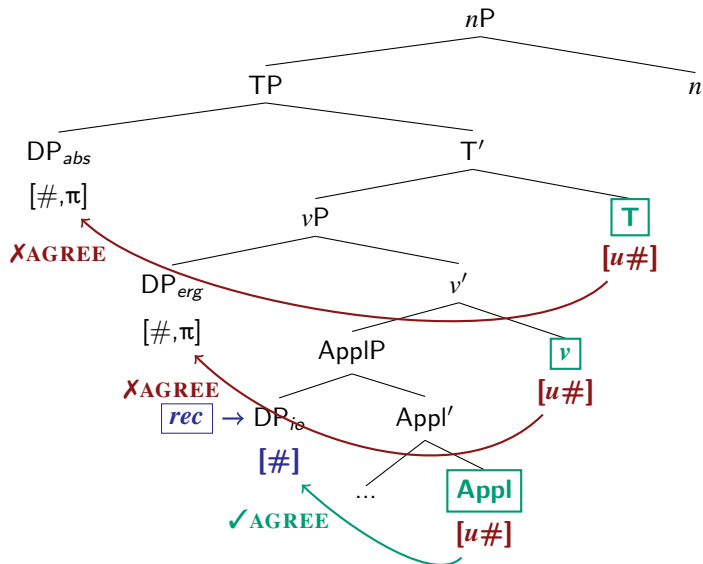
ja- žene- ze-fe- dəž'ə -n
3PL.POSS- dress- REC.IO-BEN- sew -NML

'their sewing of dresses for each other'

Deficient φ -agreement without C^0



Deficient φ -agreement without C^0



Summary: multiple feature inheritance and polysynthesis

- ▶ polypersonalism
→ multiple φ -agreement probes licensed by C^0
- ▶ evidence from nominalizations:
 φ -probes present, but agreement is deficient
- ▶ \Rightarrow indirect connection between case/agreement and a given verbal projection

Nominalizations are larger than they appear.

- ▶ feature inheritance as a species of Agree
- ▶ multiple feature inheritance necessary in cartography (Branigan to appear)
- ▶ possible approach for “indirect licensing” cross-linguistically:
 - ▶ genitive of negation in Slavic (Bailyn 2004)
 - ▶ ergative case in Hindi (Legate 2008)
 - ▶ augmentless nominals in Zulu (Halpert 2015)
 - ▶ dative case in Georgian (Ershova 2016)
 - ▶ PP selection in Semitic (Hewett 2020)
- ▶ φ -deficiency of anaphors (Kratzer 2009; Reuland 2011; Sundaresan 2020)
- ▶ alternative account to mixed extended projections (Borsley and Kornfilt 2000; Kornfilt and Whitman 2011)

Thank you!

- ▶ Karlos Arregi, Vera Gribanova, Boris Harizanov, participants of SMircle (Stanford)
- ▶ Svetlana K. Alishaeva, Saida Gisheva, Susana K. Khatkova, and Zarema Meretukova
- ▶ National Science Foundation DDRIG #1749299

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Reciprocal binding is diagnosed morphologically

ABS external argument binds **IO**

⇒ REC replaces IO agreement

you

with us

↓
š^wə-

qə-

↓
d-

de-

š^weš't

2PL.ABS- CIS- 1PL.IO- COM- dance.FUT

BASELINE

'You(pl) will dance with us'

Reciprocal binding is diagnosed morphologically

ABS external argument binds **IO**

⇒ REC replaces IO agreement

you **with each other**

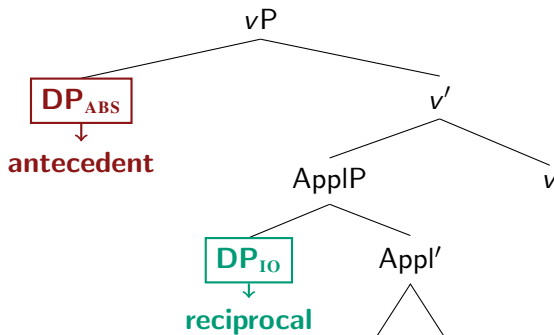

š̂wə- qə- ze- de- š̂wəš't
2PL.ABS- CIS- REC.IO- COM- dance.FUT

RECIPROCAL

'You(pl) will dance with each other'

Reciprocal binding is established via c-command

ABS external argument binds **IO**:



- ▶ reflexives are local subject oriented (Ershova 2019b, 2020a)
⇒ bound by highest DP in vP
- ▶ reflexive agreement is possible in nominalizations

Reflexive agreement with absolutive

mə pšašem zə- q- jə- be- š^we -ž'ə -B
this girl(ERG) **REFL.ABS-** **CIS-** 3SG.ERG- CAUS- dance -RE -PST

'This girl made herself dance.'

jə- zə- qə- be- š^wa -č'e
3SG.POSS- **REFL.ABS-** **CIS-** CAUS- dance -NML

'her manner of making herself dance'

Concessive clausal adjunct in nominalization

səg^w rjehə [jə- leʋe- thač'ə -č'e
I like 3SG.POSS- dish- wash -NML
[psə š'aməjemjə]]
water despite not having

'I like his/her washing the dishes despite not having water.'

Manner clausal adjunct in nominalization

səg^w rjəhərep [jə- aχš'e- ʋe- k^wa -č'e
I don't like 3SG.POSS- money- CAUS- go -NML
[**njewəš'remafem** **jeməg^wəpšəsew**]]
tomorrow not thinking

'I don't like his manner of spending money without thinking about tomorrow.'

Temporal adjunct in nominalization

[**mafe-qes** wjə- t^wəčan- k^we -n] sjezeš'əɸ
day-every 2SG.POSS- store- go -NML I am tired

'I'm tired of your going to the store every day.'