

# Unexpected consequences of polysynthesis

## Deficient probes, dynamic phases and the role of C

Ksenia Ershova (kershova@stanford.edu)

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### 1 The role of C in polysynthesis

**West Circassian** (or Adyghe; Northwest Caucasian):

- polysynthetic, with multiple verbal  $\phi$ -probes and high degree of synthesis
- syntactically ergative: the absolutive argument moves to c-command the ergative agent (Ershova 2019, 2021a, to appear b)

**Main claim:**

Polysynthetic  $\phi$ -probes agree with the highest head in the verbal extended projection –  $C^0$ .

**Explains two seemingly unrelated puzzles:**

1.  $\phi$ -probe deficiency in nominalizations which lack  $C^0$  (Ershova 2021b)  
 $\Rightarrow \phi$ -probes are licensed via agreement with  $C^0$
2. variable islandhood of DPs at phase edges ( $vP$  and ApplP) (Ershova to appear a)  
 $\Rightarrow$  agreement with C ‘unlocks’ phases for subextraction

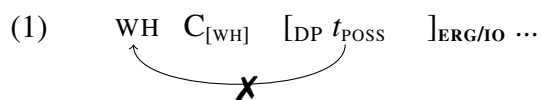
**Puzzle #1: deficient probes in nominalizations**

- nominalizations include structure up to TP
- but  $\phi$ -agreement is possible only with  $\phi$ -deficient anaphors

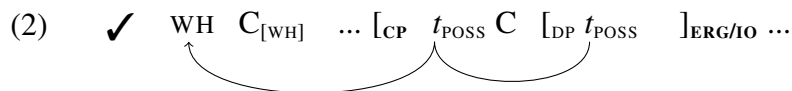
$\Rightarrow$  full  $\phi$ -agreement is licensed by  $C^0$ .

**Puzzle #2: variable DP islandhood**

- ergative and applied argument DPs are islands with clausebound wh-movement



- but not with successive-cyclic wh-movement across a CP boundary



Phase edges (Spec,*v*P and Spec,ApplP) are opaque for subextraction, **unless C<sup>0</sup> has independently agreed with *v*<sup>0</sup> and Appl<sup>0</sup>.**

- C agrees with *v*<sup>0</sup> and Appl<sup>0</sup> **before** successive cyclic edge feature
  - ✓ subextraction from *v*P and ApplP in embedded CP
- C agrees with *v*<sup>0</sup> and Appl<sup>0</sup> **after** matrix wh-feature
  - ✗ subextraction from *v*P and ApplP in matrix CP

### Roadmap:

- 2 Background on West Circassian clause structure
- 3 The analysis: Agreement with C in the verbal extended projection
- 4 Case study #1: Deficient probes in nominalizations
- 5 Case study #2: Variable islandhood and dynamic phasehood
- 6 Conclusion and implications

## 2 Background on West Circassian clause structure

- polysynthesis (Kumakhov 1964; Kumakhov & Vamling 2009; Testelets 2009; Korotkova & Lander 2010; Lander & Letuchiy 2010; Lander 2017; Lander & Testelets 2017, *inter alia*):

(3) sə- qə- p- f- a- r- jə- ʁe- λeβ<sup>w</sup>ə-β  
 1SG.ABS- DIR- 2SG.IO- BEN- 3PL.IO- DAT- 3SG.ERG- CAUS- see -PST  
 ‘He showed me to them for your sake.’ (Korotkova & Lander 2010:301)

- ergativity in verbal indexing

(4) | **Absolutive-** | **Applied object-** | **Applicative-** | **Ergative-** |

- possessors are cross-referenced on the noun:

(5) s-šəpχ<sup>w</sup>əxer  
**1SG.PR-sister.PL.ABS**  
 ‘my sisters’

(6) t-jə-β<sup>w</sup>əneβ<sup>w</sup>əxem  
**1PL.PR-POSS-neighbor.PL.OBL**  
 ‘our neighbors’

- ergativity in case marking

absolutive *-r*: subject of intransitive verb (7a)  
 theme of transitive verb (7b)

oblique *-m*: agent of transitive verb (7b)  
 applied objects (7c)  
 possessors (7d)  
 complements of postpositions (7e)

- (7) a. mə pšaše-**r**(ABS) jane pajə Ø-qaš<sup>w</sup>e  
 this girl-ABS 3PL.PR+mother for 3ABS-dance  
 ‘The girl is dancing for her mother.’
- b. sjəpšašexe-**m**(ERG) nəɣapexe-**r**(ABS) Ø-a-ferəvex  
 1SG.PR.girl.PL-**OBL** doll.PL-ABS 3ABS-3PL.ERG-dress.PST.PL  
 ‘My daughters dressed the dolls.’
- c. mə č’ale-**r**(ABS) bere jəʔahəlxə-**m**(IO) telefonč’e  
 this boy-ABS much 3SG.PR.relative.PL-**OBL** telephone.INS  
 Ø-a-fe-tjewe  
 3ABS-3PL.IO-BEN-hit.PRES  
 ‘This boy calls (lit. rings for) his relatives on the telephone a lot.’
- d. pšaše-**m** Ø-jə-pšešə<sup>w</sup> e. mə š<sup>w</sup>əzə-**m** pajə  
 girl-**OBL** 3SG.PR-POSS-female.friend this woman-**OBL** for  
 ‘the girl’s friend’ ‘for this woman’

- Indefinite nouns, possessed nouns in the singular, proper names and personal pronouns are generally unmarked for case (Arkadiev et al. 2009:51-52; Arkadiev & Testelets 2019).
- High absolutive syntax, based on **anaphor binding** and parasitic gaps

(Ershova 2019, 2021a, to appear b)

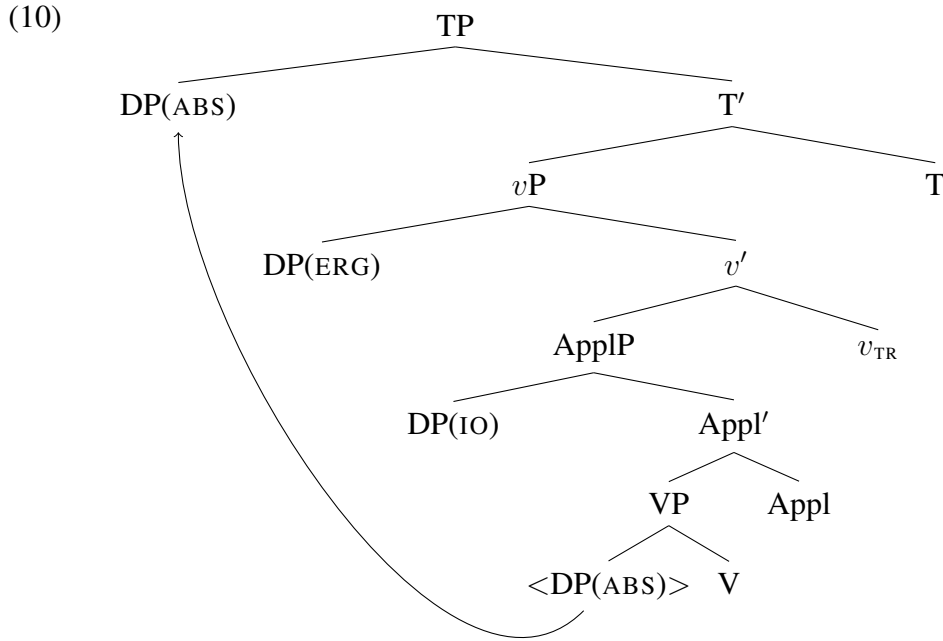
### Reciprocals:

- covert anaphor triggers specialized agreement on the verb without changing valency or case frame

- (8) (...) a-xe-**me** zanč’-ew Ø zewəže  
 that-PL-**PL.OBL** direct-ADV (rec) all  
 Ø- **ze-** r- a- ʔ<sup>w</sup>ete -ž’ə -š’tə -və  
 3ABS- **REC.IO-** DAT- 3PL.ERG- tell -RE -IPF -PST  
 ‘They certainly told the whole truth to each other.’ (Rogava & Keraševa 1966:274)

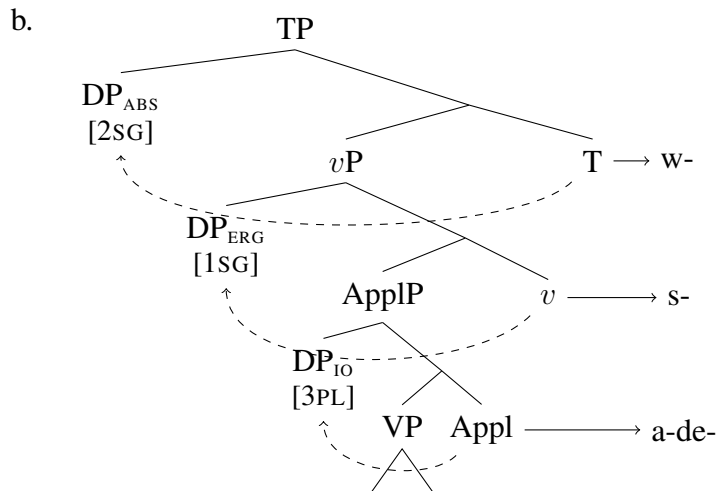
- absolutive theme binds ergative agent, and not vice versa

- (9) a.  $\hat{s}^w\text{-}$  t-  $\lambda e_B^w\text{-}$  -B  
 2PL.ABS- 1PL.ERG- see -PST  
 ‘We saw you.’
- b. t $\text{-}$  **zere-**  $\lambda e_B^w\text{-}$  -B c. \***ze(re)-** t-  $\lambda e_B^w\text{-}$  -B  
 1PL.ABS- REC.ERG- see -PST REC.ABS- 1PL.ERG- see -PST  
 ‘We saw each other.’ Intended: ‘We saw each other.’



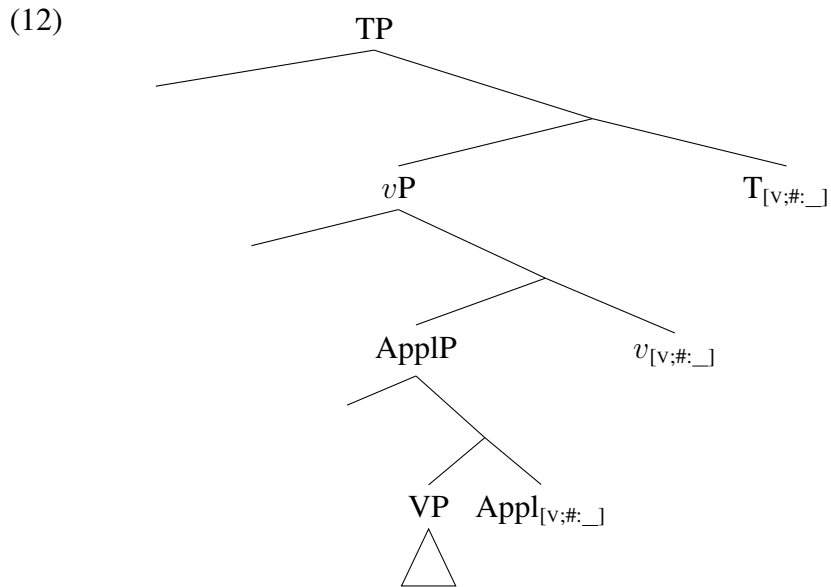
- Spec-head agreement with multiple  $\phi$ -probes:

- (11) a. w- a-de- s-  $\check{s}'aB$   
 2SG.ABS- 3PL.IO-COM- 1SG.ERG- bring.PST  
 ‘I brought you with them.’



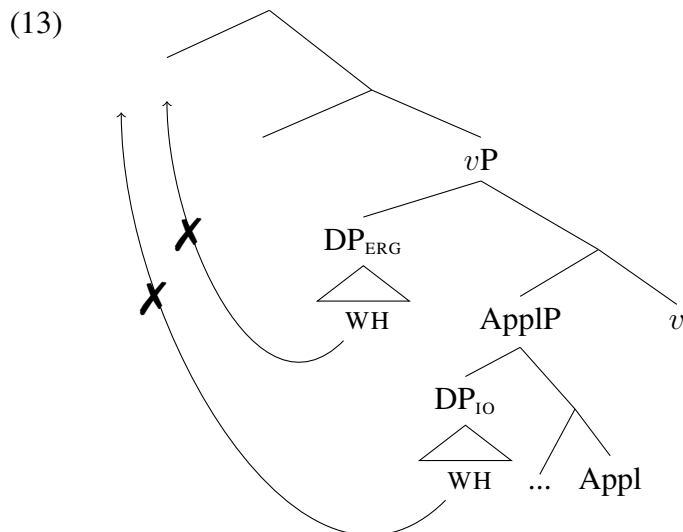
### 3 The proposal

- $T^0$ ,  $v^0$  and  $Appl^0$  are merged as deficient probes specified for number (#) and a verbal category feature [V] (in addition to more specific category features).



- $vP$  and  $ApplP$  are phases (McGinnis 2000, 2001; Legate 2003, a.o.), and phase edges are opaque for subextraction (Chomsky 2000, 2001).

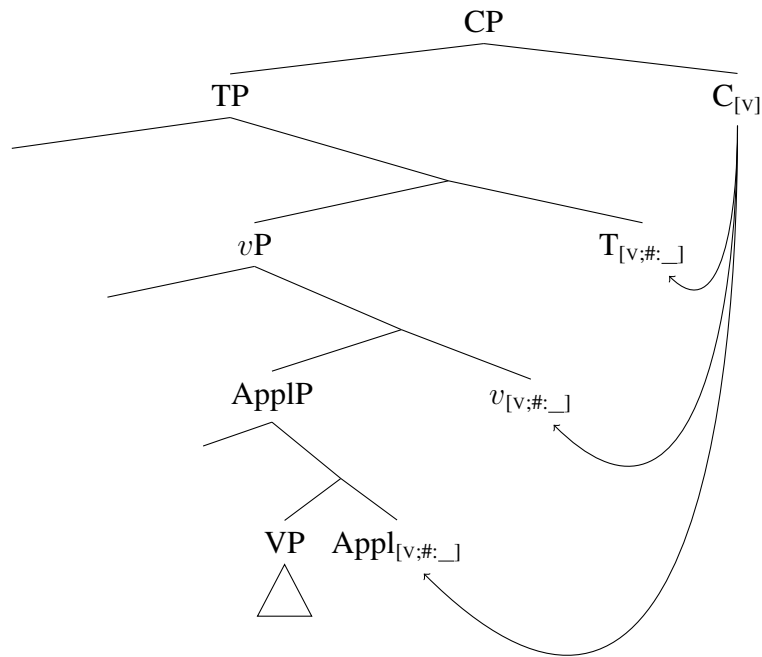
⇒ ERG and IO DPs are islands



- $C^0$  agrees with  $T^0$ ,  $v^0$  and  $Appl^0$  in [V] by Multiple Agree

(Hiraiwa 2001, 2005; Zeijlstra 2004; Nevins 2007, 2011, a.o.)

(14)



### Consequences:

- Agreement with  $C^0$  licenses  $T^0$ ,  $v^0$  and  $Appl^0$  as full  $\phi$ -probes specified for number **and** person ( $\pi$ ).
- Agreement with  $C^0$  makes phases transparent for subextraction per the Principle of Minimal Compliance (Richards 1998; Rackowski & Richards 2005):

(15) Once a probe P is related by Agree with a goal G, P can ignore G for the rest of the derivation.

### Predictions:

1. Without  $C^0$ ,  $\phi$ -probes are deficient, i.e. no agreement or licensing of nominals fully specified for  $\phi$ -features (cf. Kalin 2019).

confirmed by nominalizations

2. Nominals which do not need full  $\phi$ -licensing may be licensed (and agreed with) without  $C^0$ .

confirmed by  $\phi$ -deficient anaphors and structurally deficient NPs

3. If  $C^0$  agrees with  $v^0$  and  $Appl^0$  before probing with a movement feature, subextraction from  $vP$  and  $ApplP$  is possible.

confirmed by successive-cyclic wh-movement triggered by an edge feature

4. If  $C^0$  agrees with  $v^0$  and  $Appl^0$  after probing with a movement feature, subextraction from  $vP$  and  $ApplP$  is ungrammatical.

confirmed by local wh-movement triggered by a contentful wh-feature

## Roadmap:

- 4 Case study #1: Deficient probes in nominalizations
- 5 Case study #2: Phase unlocking and variable islandhood
- 6 Conclusion and implications

## 4 Case study #1: Deficient probes in nominalizations

Based on Ershova (2021b).

### 4.1 Argument licensing and $\phi$ -agreement in nominalizations

- Non-derived nominals: modifiers and complements incorporated,  $\phi$ -agreement with possessor

- (16) ja- xebze- bzəpɣe  
3PL.POSS- rule- example  
'their legal example' (Ershova 2020:431)

- Nominalizations: no verbal  $\phi$ -agreement or licensing, arguments licensed as possessor or incorporated

- (17) a. [adre-**me**(ERG) laɬe-**r**(ABS)  $\emptyset$ -zer-**a**-thač'ə-re-m  
other-**PL.OBL** dish-**ABS** **3ABS-FCT-3PL.ERG**-wash-PRES-OBL  
s- $\emptyset$ -je-pɬə-nə-r səg<sup>w</sup> rjehə  
1SG.ABS-3SG.IO-DAT-watch-MOD-ABS I like

'I like to watch other people wash dishes.'

**finite clause**

- b. \* [pšaše-**m** laɬe-xe-**r** thač'ə-nə] -r səg<sup>w</sup> rjehə  
girl-**OBL** dish-**PL-ABS** wash-**NML** -**ABS** I like

Intended: 'I like the girl's washing of dishes.'

**nominalization**

- c. pšaše-**m**  $\emptyset$ - **jə**- **leɬe**- thač'ə -n səg<sup>w</sup> rjehə  
girl-**OBL** **3SG.PR**- **POSS**- **dish**- wash -**NML** I like

'I like the girl's dish-washing.'

**nominalization**

(Ershova 2020:450-452)

- Structure up to TP

✓ causative and applicative morphology

- (18) zawe-m  $\emptyset$ - jə- xebze- **ɬe**- k<sup>w</sup>edə -č'e  
war-**OBL** **3SG.PR**- **POSS**- rule- **CAUS**- perish -**NML**

'the war's destruction (lit. causing to perish) of traditions' (Ershova 2020:449)

- (19) ja- haž<sup>w</sup>ə- **de-** žeg<sup>w</sup>ə -č'e  
 3PL.POSS- puppy- **COM-** play -NML  
 'their manner of playing with puppies'

✓ temporal adverbs

- (20) [ **mafe-qes** wjə- t<sup>w</sup>əčan- k<sup>w</sup>e -n ] sjezeš'əβ  
**day-every** 2SG.POSS- store- go -NML I'm tired  
 'I'm tired of your going to the store every day.'

- (21) **mafe-qes** \*(Ø-k<sup>w</sup>e-re) pjerjedač  
**day-each** 3ABS-go-PRES broadcast  
 'every day program' (incompatible with non-derived nominals)

✓ binding by high absolutive

⇒ absolutive moves to Spec,TP

- (22) a. mə çəf-xe-r Ø- qe- **zere-** βe- š<sup>w</sup>ež'əx  
 this person-PL-ABS **ABS-** DIR- **REC.ERG-** CAUS- dance.PL  
 'These people are making each other dance.'

**finite clause**

- b. ja- qe- **zere-** βe- š<sup>w</sup>a -č'e  
 3PL.POSS- DIR- **REC.ERG-** CAUS- dance -NML  
 'their manner of making each other dance'

**nominalization**

\*\*Position of REC in nominalization corresponds to ERG position in finite form.

**Summary:** no verbal  $\phi$ -agreement or licensing, but structure up to TP

⇒  $\phi$ -probes are present in the syntax, but cannot agree or license

## 4.2 Deficient probes without C

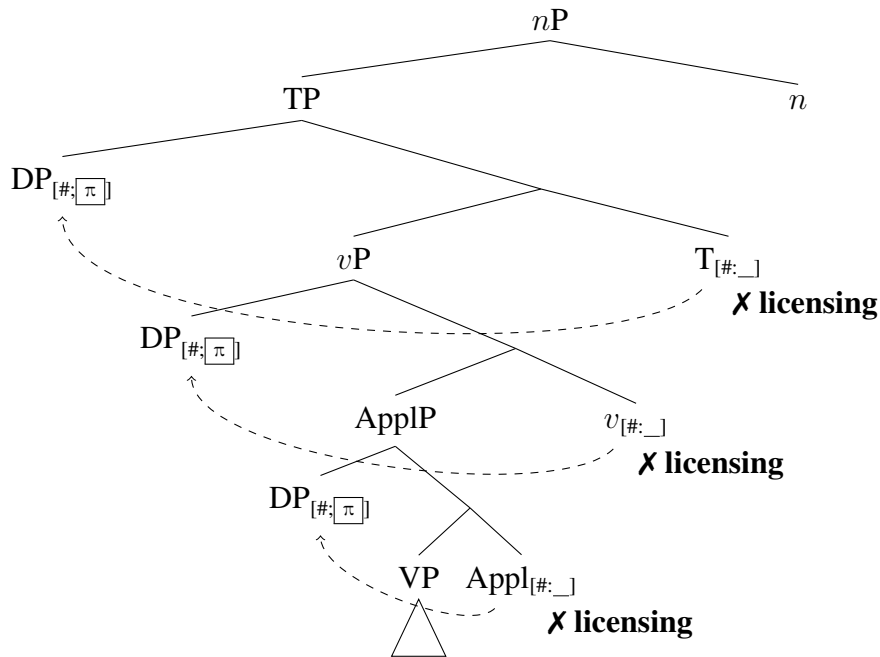
**The proposal:**

- $\phi$ -probes are deficient without C<sup>0</sup> – only specified for [#]
- nominals require agreement in full  $\phi$ -features to be licensed

⇒ no  $\phi$ -agreement or licensing of arguments with full set of  $\phi$ -features



(23)



**Prediction:**  $\phi$ -deficient nominals may be licensed in nominalizations

✓ reflexives and reciprocals

– anaphors are  $\phi$ -deficient – only specified for [#]

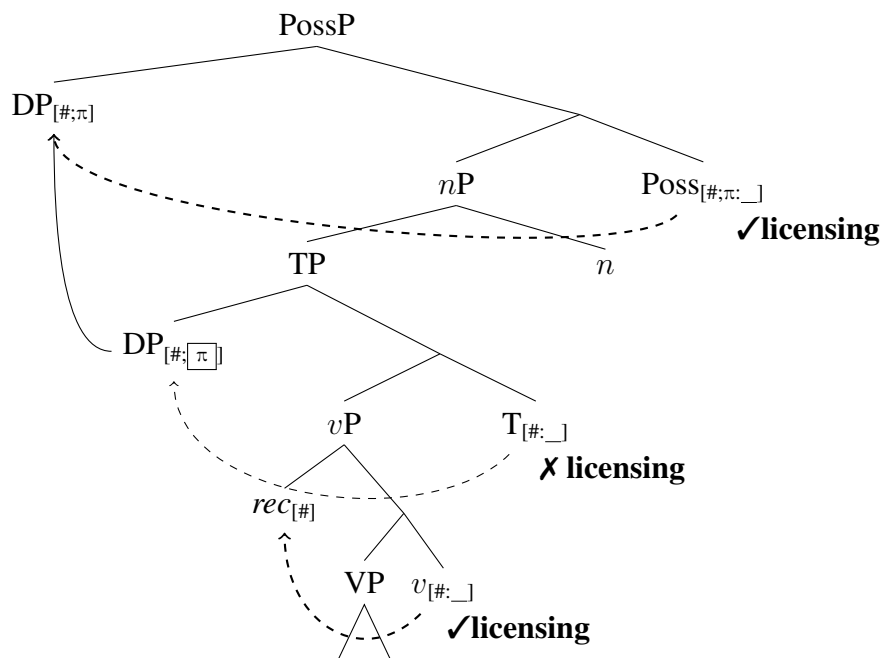
(cf. Kratzer 2009; Reuland 2011; Sundaresan 2020)

– may be licensed and agreed with in nominalizations:

(24) Ergative reciprocal – agreement with  $v^0$

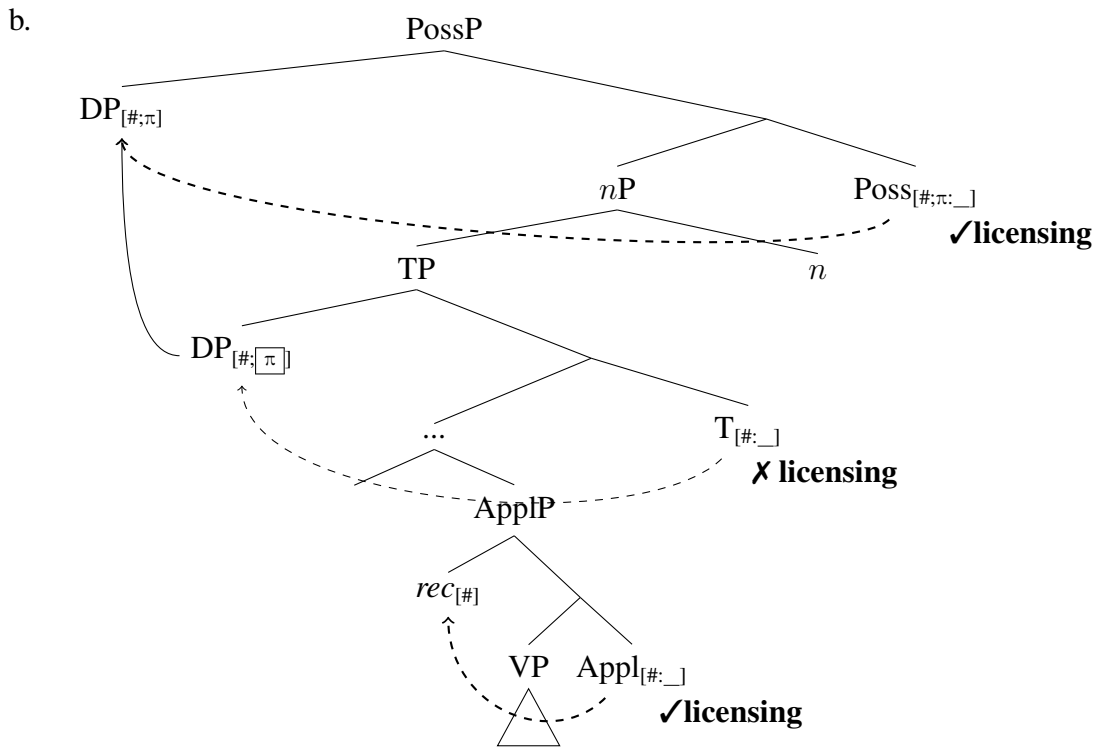
a. ja-        qe-    **zere-**    be-    š<sup>w</sup>a    -č'e  
 3PL.POSS- DIR- **REC.ERG-** CAUS- dance -NML  
 ‘their manner of making each other dance’

b.



(25) Applicative reciprocal – agreement with Appl<sup>0</sup>

- a. ja-            ze-            fe-    g<sup>wə</sup>ʔež<sup>ʔə</sup>-č<sup>ʔe</sup>    səg<sup>w</sup> rjehə  
 3PL.POSS- REC.IO- BEN- endeavor -NML I like  
 ‘I like their manner of working hard for each other.’



✓ structurally deficient NPs

- (26) mə p̂šešəžəje-m Ø-            jə-            š<sup>wə</sup>əhaftən- š<sup>ʔə</sup>-    g<sup>wə</sup>əB<sup>wə</sup>-č<sup>ʔe</sup>    sjeβeš<sup>ʔ</sup> xə  
 this girl-OBL    3SG.PR- POSS- gift-            LOC- hope -NML makes me laugh  
 ‘This girl’s anticipating of presents makes me laugh.’

- (27) mə sabəj-xe-m    ja-            haž<sup>wə</sup>- de-    žeg<sup>wə</sup>-č<sup>ʔe</sup>    sjəč<sup>ʔ</sup>as  
 this child-PL-OBL 3PL.POSS- puppy- COM- play -NML I like  
 ‘I like these children’s manner of playing with puppies.’

Ershova (2020): NPs are pseudo noun incorporated – remain in situ and are pronounced as one word with nominalized verb.

Pseudo incorporated NPs do not need licensing via agreement, because they are not specified for number or person ⇒ generic, indefinite interpretation.

### 4.3 Summary: deficient probes

- $\phi$ -probes ( $v^0$ ,  $\text{Appl}^0$  and  $T^0$ ) are deficient – only specified for [#]
- full  $\phi$ -agreement and licensing is licensed by agreement with  $C^0$
- without  $C^0$ , only  $\phi$ -deficient nominals may be successfully licensed:

- anaphoric pronouns
- structurally deficient NPs
- Agreement with  $C^0$  confirmed by variable islandhood of DPs at phase edges.

## 5 Case study #2: Phase unlocking and variable islandhood

Based on Ershova (to appear a).

### 5.1 Background: wh-movement in relative clauses

Per Lander (2009a,b, 2012); Caponigro & Polinsky (2011); Ershova (2021a)

Relativization is the only type of wh-movement.

#### (28) General structure of relative clauses (Caponigro & Polinsky 2011):

[<sub>CP</sub> *Op*<sub>i</sub> C[WH] [<sub>TP</sub> ... *t*<sub>i</sub> ... ]]

- Movement of covert wh-operator (*Op*) diagnosed by (i) islandhood sensitivity and (ii) the ability of the moved operator to license parasitic gaps (Appendix A).
- $\phi$ -agreement referring to the relativized participant replaced by **wh-agreement** (Caponigro & Polinsky 2011; see also O’Herin 2002; Baier 2018 on Abaza):

z(ə)- = ergative agents, applied objects, and possessors

∅- = absolutive arguments

#### Ergative agent:

- (29) a. mə č’ale-m<sub>i</sub> ə-š                      velosjaped ∅-    ∅-    r-    jə-            tə -B  
**this boy-OBL** 3SG.PR-brother bicycle    3ABS- 3SG.IO- DAT- **3SG.ERG-** give -PST  
 ‘This boy gave a bicycle to his brother.’
- b. marə č’al-ew [<sub>RC</sub> *Op*<sub>i</sub> *t*<sub>i</sub>(ERG) ə-š                      velosjaped  
 here boy-ADV    3SG.PR-brother                      bicycle  
 ∅-    ∅-    je-    zə-            tə -Bə] -r  
 3ABS- 3SG.IO- DAT- **WH.ERG-** give -PST -ABS  
 ‘Here is the boy that gave a bicycle to his brother.’

## Possessor:

- (30) marə š<sup>w</sup>əz-ew [RC Op<sub>i</sub> [DP t<sub>i</sub>(PR) z-jə-pšaše ] dax-ew  
here woman-ADV WH.PR-POSS-girl good-ADV  
Ø-qa-š<sup>w</sup>e-re] -r  
3ABS-DIR-dance-PRES -ABS  
'Here is the woman whose daughter dances well.'

- **Nominal head** (i) appears to the left of relative clause with *-ew* (ADV) case marking; (ii) to the right with regular case marking; (iii) is null (in headless relative clauses).

Nominal head to the right of the relative clause:

- (31) [RC Op<sub>i</sub> t<sub>i</sub>(ERG) Ø-jə-šhan<sup>w</sup>ənce Ø- xe- zə- wətə -be] č'ale-r marə  
3SG.PR-POSS-window 3ABS- LOC- WH.ERG- break -PST boy-ABS here  
'Here is the boy that broke his window.'

Headless relative clause:

- (32) [RC Op<sub>i</sub> aslan t<sub>i</sub>(IO) Ø- zə- fae -zepətə] -m ə-š-xe-r  
Aslan 3ABS- WH.IO- want -HABIT -OBL 3SG.PR-brother-PL-ABS  
fajep  
don't want  
'[What Aslan always wants] his brothers don't want.'

## 5.2 Phase edges are islands

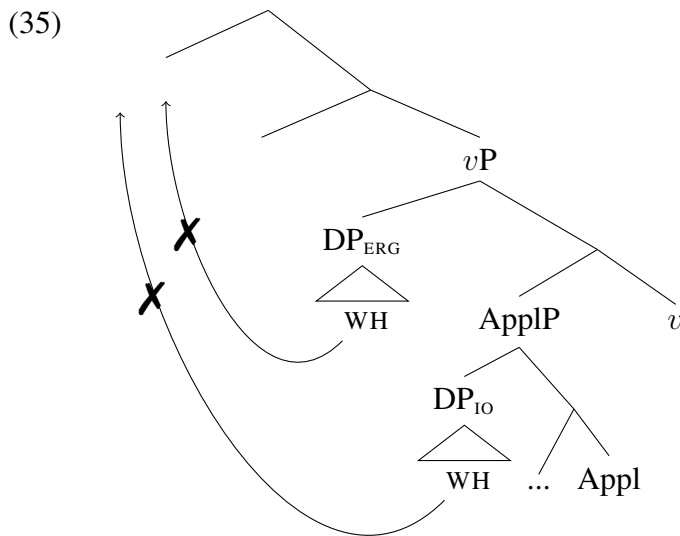
**Generalization:** The ergative and applied argument DPs are islands for subextraction because they appear at phase edges: Spec,*v*P and Spec,AppIP.

No possessor extraction from ergative DP:

- (33) a. [mə bzəlfəbe-m(PR) Ø-jə-č'ale ](ERG) dax-ew wered(ABS)  
this woman-OBL 3SG.PR-POSS-boy beautiful-ADV song  
Ø-q-j-e-ʔ<sup>w</sup>e  
3ABS-DIR-3SG.ERG-PRES-sing  
'This woman's son sings well.'
- b. \* xet-a [ Op<sub>i</sub> [ t<sub>i</sub>(PR) z-jə-č'ale ](ERG) dax-ew wered(ABS)  
who-Q WH.PR-POSS-boy beautiful-ADV song  
Ø-q-ə-ʔ<sup>w</sup>e-re] -r  
3ABS-DIR-3SG.ERG-sing-PRES -ABS  
Intended: 'Whose son sings well?'

No possessor extraction from applied object:

- (34) a. [mwe  $\hat{s}^w\text{əzə-m(PR)}$   $\text{ə-q}^w\text{e}$ ](IO)  $\text{č'elejevaže-r(ABS)}$   $\text{Ø-Ø-je-čeça-ɸ}$   
 this woman-OBL **WH.PR-son** teacher-ABS 3ABS-3SG.IO-DAT-scold-PST  
 'The teacher scolded this woman's son.'
- b. \*mwarə [<sub>RC</sub>  $\hat{s}^w\text{əz-ew}_i$  [<sub>DP</sub>  $t_i(\text{PR})$   $\text{zə-q}^w\text{e}$ ](IO)  $\text{č'elejevaže-r(ABS)}$   
 here woman-ADV **WH.PR-son** teacher-ABS  
 $\text{Ø-Ø-je-čeça-ɸe}$  -r  
 3ABS-3SG.IO-DAT-scold-PST -ABS  
 Intended: 'Here is the woman whose son the teacher scolded.'

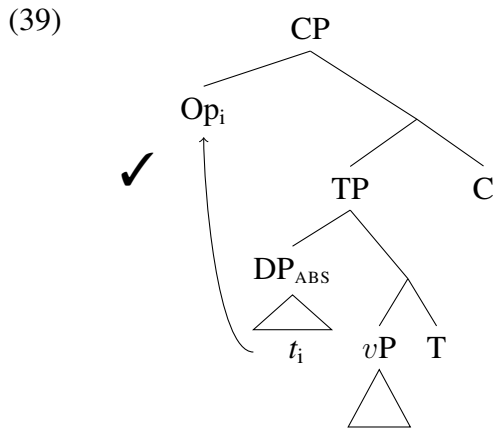


**DPs not at phase edges are not islands:**

Subextraction from absolutive DP:

- (36) marə  $\hat{s}^w\text{əz-ew}$  [<sub>RC</sub>  $Op_i$  [<sub>DP</sub>  $t_i(\text{PR})$   $\text{z-jə-pšaše}$  ]  $\text{dax-ew}$   
 here woman-ADV **WH.PR-POSS-girl** good-ADV  
 $\text{Ø-qa-š}^w\text{e-re}$  -r  
 3ABS-DIR-dance-PRES -ABS  
 'Here is the woman whose daughter dances well.' (possessor of external argument)
- (37) mwarə [<sub>RC</sub>  $\hat{s}^w\text{əz-ew}_i$  [<sub>DP</sub>  $t_i(\text{PR})$   $\text{zə-q}^w\text{e}$ ](ABS)  $\text{hapse-m}$   
 here woman-ADV **WH.PR-son** prison-OBL  
 $\text{Ø-Ø-č-a-ʒa-ɸe}$  -r  
 3ABS-3IO.SG-LOC-3PL.ERG-throw-PST -ABS  
 'Here is the woman whose son they threw in jail.' (possessor of internal argument)

- (38) marə [RC pšâš-ew<sub>i</sub> [DP [DP t<sub>i</sub>(PR) zə-šəpχ<sup>w</sup>](PR) Ø-jə-pšêšəB<sup>w</sup>](ABS)  
 here girl-ADV WH.PR-sister 3SG.PR-POSS-girlfriend  
 dexe-ded-ew Ø-qa-š<sup>w</sup>e-re ] -r  
 beautiful-very-ADV 3ABS-DIR-dance-PRES -ABS  
 ‘Here is the girl whose sister’s friend dances very beautifully.’ (possessor of possessor)



**Summary:** DPs at phase edges are islands for subextraction.

### 5.3 Agreement with C unlocks phases

Per Richards’s (1998) Principle of Minimal Compliance:

If the movement-triggering feature on C<sup>0</sup> probes *after* C<sup>0</sup> agrees with T<sup>0</sup>, v<sup>0</sup> and Appl<sup>0</sup>, vP and ApplP (and their edges) become transparent for subextraction.

**This is confirmed by cross-clausal wh-movement.**

- Cross-clausal wh-movement is successive-cyclic, passing through the edge of embedded CP.

- (40) xet-a [RC Op<sub>i</sub> we [CP t<sub>i</sub>(IO) wə-z-š’ə-tχ<sup>w</sup>ə-n-ew ]  
 who-Q you 2SG.ABS-**WH.IO**-LOC-praise-MOD-ADV  
 Ø-je-b-βe-ž’a-βe ] -r  
 3ABS-DAT-2SG.ERG-CAUS-begin-PST -ABS  
 ‘Who did you begin to praise?’

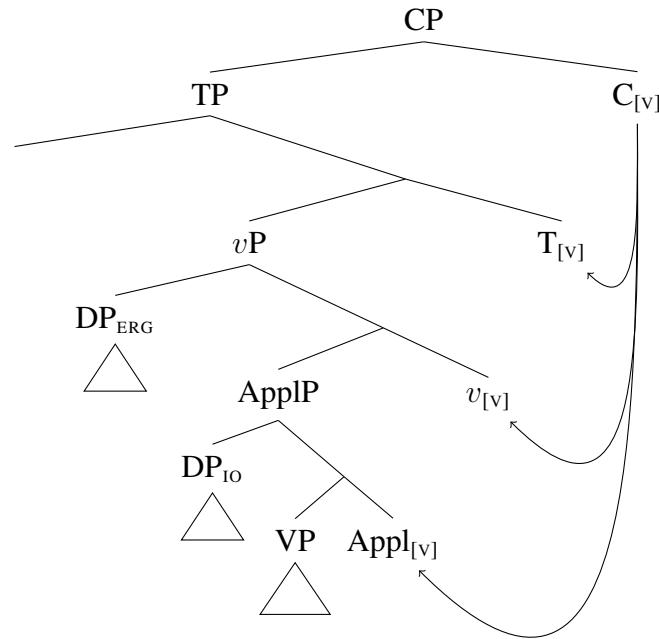
- (41) [CP Op<sub>i</sub> C<sub>[WH]</sub> ... [CP t<sub>i</sub> C [ ... t<sub>i</sub>(IO) ... ]
- 

- Successive-cyclic wh-movement is triggered by a last resort edge feature (EF) on the phase head (embedded C<sup>0</sup>).
- [EF] is inserted
  - (i) if there is an unchecked movement feature in the complement of a phase head
  - (ii) after all other features on the phase head are checked.

- Embedded  $C^0$

(i) agrees with  $v^0$  and  $\text{Appl}^0$  in  $[V]$ ,

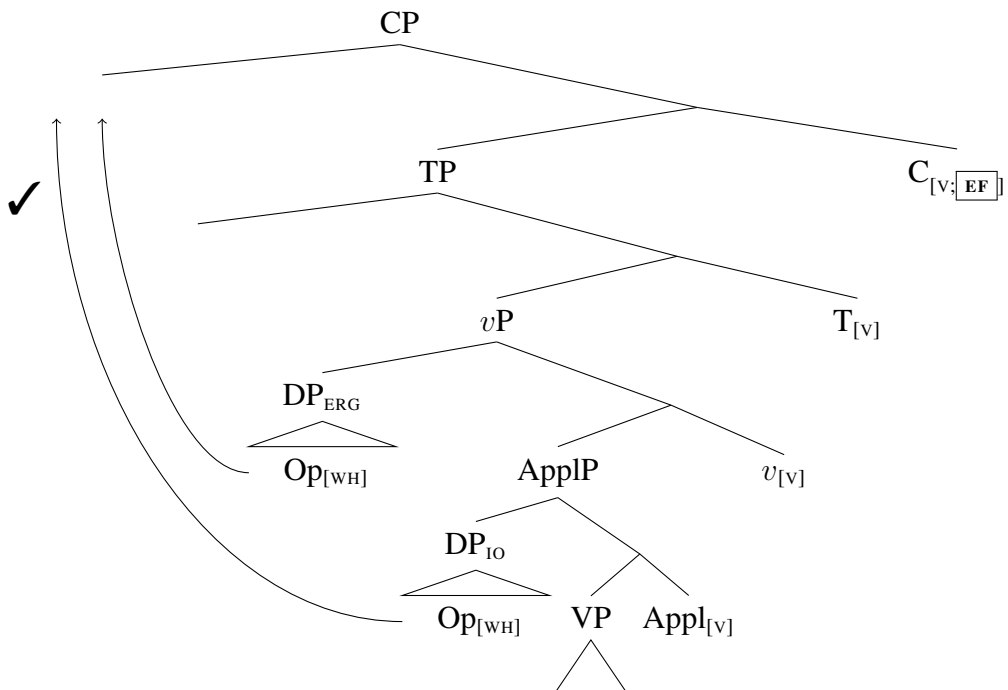
(42)



(ii) probes with  $[EF]$  *after*  $[V]$ .

$\Rightarrow$   $vP$  and  $\text{ApplP}$  are ‘unlocked’ for probing:  $C^0$  can probe into  $\text{Spec},vP$  (ergative DP) and  $\text{Spec},\text{ApplP}$  (applied object DP).

(43)



After moving to embedded  $\text{Spec},CP$ ,  $wh$ -element is accessible for movement to higher clause.

**Ergative and applied object DPs are not islands for cross-clausal subextraction.**

### Cross-clausal subextraction from ergative DP:

- (44) xet-a [RC  $Op_i$  [CP [DP  $t_i$ (PR) z-jə-sabəj-xe-m ](ERG) wered(ABS)  
who-Q WH.PR-POSS-child-PL-OBL song  
Ø-q-a-ɽ<sup>w</sup>e-n-ew ] Ø-wə-mə-de-re ] -r  
3ABS-DIR-3PL.ERG-say-MOD-ADV 3ABS-2SG.ERG-NEG-consent-PRES -ABS  
lit. ‘Whose did you not consent for \_\_ children to sing?’

### Cross-clausal subextraction from applicative DP:

- (45) marə [RC  $\hat{S}^w_{əz-ew_i}$  [CP [DP  $t_i$ (PR) z-jə-pšaše ](IO)  
here woman-ADV WH.PR-POSS-girl  
sə-Ø-fə-tje-we-n-ew ] Ø-je-z-ɸe-ž’a-ɸe ] -r  
1SG.ABS-3SG.IO-BEN-LOC-hit-MOD-ADV 3ABS-DAT-3SG.ERG-CAUS-begin-PST -ABS  
lit. ‘Here is the woman whose I began to call \_\_ daughter.’

**Contrast with clausebound subextraction:** contentful [WH] feature on matrix C probes *before* [V]  
⇒  $vP$  and ApplP are not unlocked for subextraction.

## 5.4 Summary: variable islandhood and phase unlocking

In addition to licensing  $\phi$ -agreement, agreement between  $C^0$  and lower verbal heads interacts with islandhood constraints:

- If  $C^0$  agrees with lower phase heads *before* probing with a movement feature, the lower phases are transparent for subextraction.
- If  $C^0$  agrees with lower phase heads *after* the movement feature, the lower phases are opaque for subextraction, leading to islandhood of DPs at phase edges.

## 6 Conclusion

Polysynthetic  $\phi$ -probes are deficient and licensed through agreement with  $C^0$ .

Correctly predicts:

1. deficient  $\phi$ -probes in nominalizations without  $C^0$
2. dynamic phasehood + variable islandhood of phase edges due to interaction between movement and agreement features:  
agreement with  $C^0$  unlocks  $vP$  and ApplP for subextraction

$T^0$ ,  $v^0$  and Appl<sup>0</sup> must be licensed by  $C^0$  to license nominal arguments.



- Indirect connection between licensor and licensee.
- Similar to C-to-T feature inheritance (Chomsky 2000, 2001), but long-distance and applicable to all  $\phi$ -probes in verbal extended projection.
- Potential 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 to appear)
- Absence of licensing/agreement with  $\phi$ -probe  $\nRightarrow$  absence of  $\phi$ -probe in the structure.

Variable islandhood of DPs at phase edges confirms agreement between  $C^0$  and lower verbal heads, including  $v^0$  and  $Appl^0$ .

Agreement unlocks phases for extraction  $\Rightarrow$  phases are opaque due to intervention for Agree (Rackowski & Richards 2005; Van Urk & Richards 2015; Halpert 2019), not transfer to the interfaces (cf. Chomsky 2000, 2001, 2008; Richards 2011; Bošković 2016, a.o.).

### Two disparate syntactic puzzles:

- deficient probes in nominalizations
- variable islandhood of argument DPs

... **due to one parameter:** agreement between  $C^0$  and lower verbal heads.

$\Rightarrow$  Research projects with a long-term commitment to a single language have the potential for non-trivial contributions to linguistic theory.

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