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## Deficient probes in West Circassian nominalizations

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# Why are $\varphi$ -probes sometimes deficient?

In certain syntactic configurations,  $\varphi$ -probes are deficient:

- ▶ may not assign case
- ▶ may not expone agreement

Verbal  $\varphi$ -probes are frequently deficient in non-finite constructions.

**My proposal:**  $\varphi$ -probes are deficient by default.

Non-deficient probes result from licensing by the highest head in the extended projection –  $C^0$ .

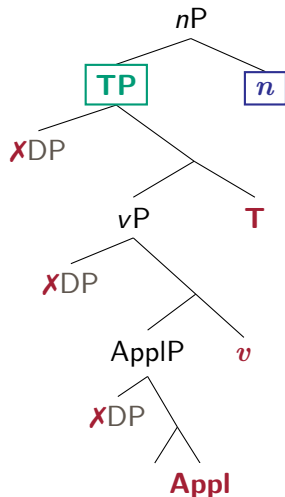
# The analysis in a nutshell

$\varphi$ -probes **must be licensed** to agree with and license nominal arguments.

- ▶ Nominal arguments must be licensed by  $\varphi$ -agreement (Kalin 2019)
- ▶  $\varphi$ -probes are merged as deficient  $\Rightarrow$  cannot license nominals.
- ▶ Full  $\varphi$ -feature probing must be licensed by the highest head in the extended projection –  $C^0$ .

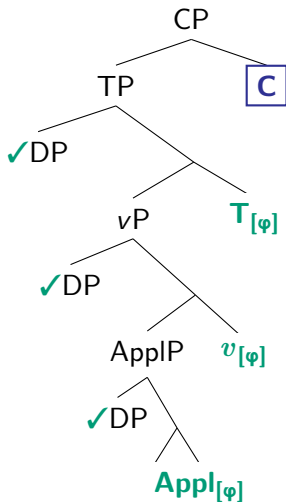
**Evidence:** deficient probes in West Circassian nominalizations.

# Nominalization



- ▶ verbal extended projection (=TP)
- ▶ embedded under nominalizer
- ▶ displays deficient verbal agreement
- ▶ cannot license DP arguments

# Deficiency in the absence of $C^0$

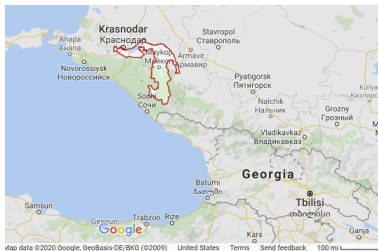


- ▶ verbal  $\varphi$ -probes are deficient unless embedded under  $C^0$
- ▶  $\phi$ -agreement and licensing are **licensed** by  $C^0$

- ▶ Background on West Circassian
- ▶ Functional structure of nominalizations
- ▶  $\varphi$ -probe licensing by  $C^0$
- ▶ Licensing arguments in nominalizations
- ▶ Conclusion

## West Circassian (or Adyghe):

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



## Data:

- ▶ fieldwork on the **Temirgoy dialect** in the Shovgenovsky district of Adyghea
- ▶ **Adyghe Corpus** by Timofey Arkhangelskiy, Irina Bagirokova, Yuri Lander, and Anna Lander (<http://adyghe.web-corpora.net/>)

# West Circassian is polysynthetic

Head marking and pro-drop:

*səqəpfarjəβeλeβ<sup>w</sup>əβ*

me	for your sake	to them	he	
↓	↓	↓	↓	
sə-	qə- p-f-	a-r-	jə-	βe-
1SG.ABS-	DIR- 2SG.IO+BEN-	3PL.IO+DAT-	3SG.ERG-	CAUS-
λeβ <sup>w</sup> 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-**



# Case marking

## -r (ABS):

- ▶ intransitive subject
- ▶ direct object

## -m (OBL):

- ▶ transitive subject
- ▶ applied object

S

mə pšaše-**r**      daxew qaš<sup>w</sup>e  
this girl-**ABS**      well      dances

‘This girl dances well.’

A

O

sabəjxe-**m**      haxe-**r**      qaləw<sup>w</sup>əw  
children-**OBL**      dogs-**ABS**      saw

‘The children saw the dogs.’

IO

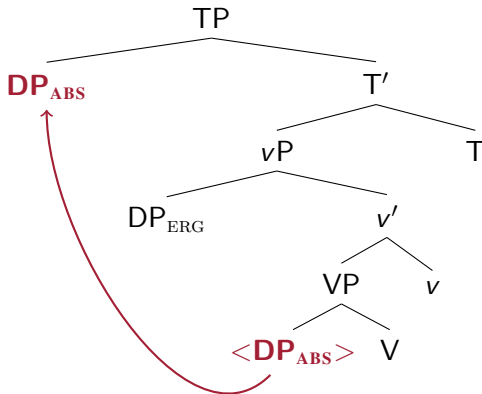
mafe-qes ježape-**m**      seḵ<sup>w</sup>e  
day-each school-**OBL**      go

‘I go to school every day.’

# High absolutive

- ▶  $DP_{ABS}$  moves to Spec,TP
- ▶ evidence from parasitic gaps and reciprocal binding

(Ershova 2019, 2021, to appear b)



(See also Bittner and Hale 1996; Manning 1996; Baker 1997; Aldridge 2008; Yuan 2018, 2022; Coon et al. 2021;

Royer to appear, a.o.)

# Reciprocal binding in West Circassian

Reciprocals are covert and trigger **reciprocal agreement** on the predicate:

- ▶ correlates with syntactic position of the reciprocal
- ▶ does not affect transitivity  $\Rightarrow$  not a de-transitivizing operator

Reciprocals are subject to Condition A

= must be bound by a local c-commanding antecedent

(Ershova 2019, to appear b)

# Reciprocal agreement

**ABS** external argument binds **IO**

⇒ REC replaces IO agreement

**you**

↓  
š<sup>w</sup>ə-

2PL.ABS-

**with us**

qə-

↓  
d-

DIR-

1PL.IO-

de-

COM-

š<sup>w</sup>eš't

dance.FUT

**BASELINE**

'You(pl) will dance with us'

# Reciprocal agreement

**ABS** external argument binds **IO**

⇒ REC replaces IO agreement

**you**

**with each other**

↓  
š<sup>w</sup>ə-

qə-

↓  
ze-

de-

š<sup>w</sup>eš't

2PL.ABS- DIR- REC.IO- COM- dance.FUT

**RECIPROCAL**

'You(pl) will dance with each other'

# Reciprocal agreement does not affect transitivity

**ERG** binds **IO**

- ▶ REC replaces IO agreement
- ▶ ERG antecedent bears OBL (=ERG) case

axe-**me**      ?eg<sup>w</sup>əb<sup>z</sup>e-r Ø-    **ze-**      r-    **a-**      təž'ə  
that.PL-**OBL**   cup-ABS    3ABS- **REC.IO-**   DAT- **3PL.ERG-**   give

‘They pass the cup to each other.’

(<http://adyghe.web-corpora.net/>)

# Reciprocal agreement does not affect transitivity

**ABS** binds **IO**

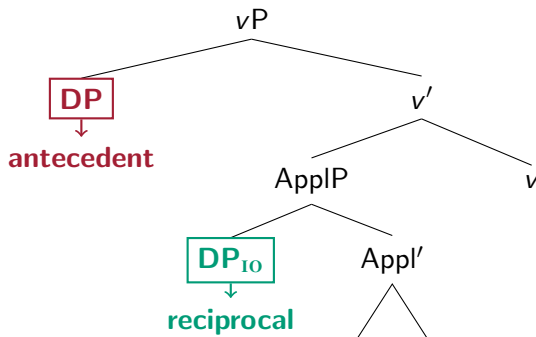
- ▶ REC replaces IO agreement
- ▶ ABS antecedent bears ABS case

sabəjxe-**r**    Ø-    **z-**    e-    pλəž'əx  
child.PL-**ABS** 3ABS- **REC.IO-** DAT- look.PL

‘The children are looking at each other.’

# Reciprocal binding is established via c-command

**ABS/ERG** external argument binds **IO**:





# Reciprocals and high absolutive

Reciprocals provide evidence for high absolutive syntax:

- ▶ reciprocals are bound by a c-commanding antecedent
- ▶ ABS theme binds ERG agent and applied object (IO)

**ABS c-commands both ERG and IO.**

# High ABS binds applied object

us                      you  
↓                      ↓  
tə-                      p-                      f-                      jə-                      š'aɞ  
**1PL.ABS-** DIR- **2SG.IO-** BEN- 3SG.ERG- bring.PST

'S/he brought us to you.'

**BASELINE**

# High ABS binds applied object

us      each other  
↓      ↓  
tə-      ze-      f-      jə-      š'aɞ  
1PL.ABS-   REC.IO-   BEN-   3SG.ERG-   bring.PST



'S/he brought us together (= to each other).'

**RECIPROCAL**

# High ABS binds applied object

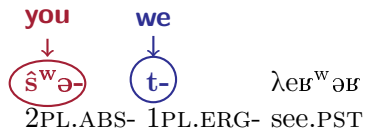
each other

us

\*   f- jə- š'aB  
REC.ABS- 1PL.IO- BEN- 3SG.ERG- bring.PST

'S/he brought us together (= to each other).' **RECIPROCAL**

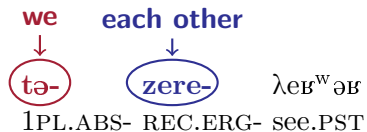
# High ABS binds ERG



**BASELINE**

‘We saw you(pl).’

# High ABS binds ERG



**RECIPROCAL**

‘We saw each other.’

# High ABS binds ERG

each other

we

↓  
\*zere-

↓  
t-

$\lambda e \mathcal{B}^w \partial \mathcal{B}$

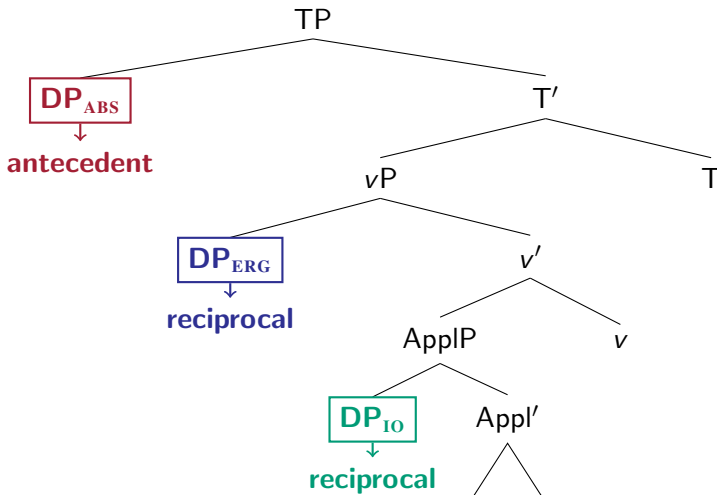
REC.ABS- 1PL.ERG- see.PST

RECIPROCAL

Intended: 'We saw each other.'

# Reciprocals and high absolutive

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





# West Circassian clause structure: summary

## West Circassian finite clauses:

- ✓ ergative, oblique and absolutive case assignment on DPs
- ✓  $\varphi$ -agreement with multiple arguments
- ✓ high absolutive syntax: ABS raises to Spec,TP  
(evidence from reciprocals)

## Next: nominalizations

- ✗ arguments licensed as possessor or pseudo-incorporated
- ✗ full  $\varphi$ -agreement unavailable
  - ✓ deficient  $\varphi$ -agreement still possible!
- ✓ high absolutive syntax

Nominalizations include structure up to TP,  
but are deficient in  $\varphi$ -agreement and licensing without  $C^0$ .

- ▶ Background on West Circassian
- ▶ **Functional structure of nominalizations**
- ▶  $\varphi$ -probe licensing by  $C^0$
- ▶ Licensing arguments in nominalizations
- ▶ Conclusion

# Noun phrase structure

- ▶  $\phi$ -agreement with possessor
- ▶ complements and modifiers incorporated

tjə- še-n- xebze -daxe -xe -r  
**1PL.POSS-** **lead-NML-** rule **-beautiful** -PL -ABS

'our beautiful rules of conduct' (Ershova 2020:431)

# Nominalizations: deficient verbal extended projection

Ershova (2020)

- ▶ arguments as possessors or incorporated  
⇒ no verbal licensing/case
- ▶ no verbal  $\phi$ -agreement  
→ possessor  $\phi$ -agreement

**laɤe-xe-r**      **Ø-**      **s-**      e-      thač'ə      **FINITE**  
**dish-PL-ABS**    **3ABS-**    **1SG.ERG-**    DYN-    wash  
'I am washing dishes.'

**wjə-**      **leɤe-**      thač'ə      -č'e      **NOMINALIZATION**  
**2SG.POSS-**    **dish-**      wash      -NML  
'your manner of washing dishes'

# Verbal functional structure in nominalizations

- ✗ no verbal case/licensing
- ✗ no full  $\varphi$ -agreement
- ✓ **BUT** includes structure up to TP

## Evidence:

1. morphological reflexes of  $v^0$  and  $\text{Appl}^0$
2. temporal adverbs
3. deficient  $\varphi$ -agreement with anaphors
4. high absolutive

# v and Appl are present in nominalizations

- ▶ nominalizations include causatives

jə-            xebze- **be-**    k<sup>w</sup>edə -č'e  
3SG.POSS- rule- **CAUS-** perish -NML

'its destruction (= causing to perish) of traditions'

- ▶ nominalizations include applicatives

ja-            haž<sup>w</sup>ə- **de-**    žeg<sup>w</sup>ə -č'e  
3PL.POSS- puppy- **COM-** play -NML

'their way of playing with puppies'

# Nominalizations include temporal adverbs

[ **mafe-qes**    wjə-            t<sup>w</sup>əčan- ḳ<sup>w</sup>e -n ]    sjezeš'əɸ  
day-each       2SG.POSS- store-    go    -NML    I am tired

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

Compare with non-derived nouns:

\* **mafe-qes**    pjerjedač  
day-each       broadcast

Intended: 'everyday program'

# Nominalizations allow anaphor agreement

## ► reciprocal agreement **with applicative**

axer      Ø-      **ze-f-**      e-      g<sup>w</sup>əʔež'ə -x  
they.ABS   3ABS- **REC.IO-BEN-** DYN- endeavor -PL

'They work hard for each other.'

**FINITE**

ja-      **ze-fe-**      g<sup>w</sup>əʔež'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**

$\Rightarrow$  DP<sub>ABS</sub> binds DP<sub>ERG</sub>  
 $\Rightarrow$  **high absolutive**

Ø-      **qe-**      **zer-**      e-      be-      š<sup>w</sup>e      -ž'ə -x  
3ABS- **DIR-** **REC.ERG-** DYN- CAUS- dance -RE -PL

'They are making each other dance.'

**FINITE**

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'

**NOMINALIZATION**

# Functional structure of nominalizations: summary

✓ Nominalizations include a **full TP**:

- ▶ high ABS binds ERG reciprocal
- ▶  $v^0$  and Appl<sup>0</sup> morphology
- ▶ temporal adverbs
- ▶ anaphor agreement

**BUT:**

- ✗ no full  $\varphi$ -agreement
- ✗ no licensing of DP arguments

# Deficient $\varphi$ -probes in nominalizations

## The puzzle

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

- ▶ no full  $\varphi$ -agreement, only anaphor agreement
- ▶ no verbal case or licensing

## The solution:

Verbal  $\varphi$ -probes are present in nominalizations,  
but **they are deficient** in the absence of  $C^0$ .

- ▶ Background on West Circassian
- ▶ Functional structure of nominalizations
- ▶  $\varphi$ -probe licensing by  $C^0$
- ▶ Licensing arguments in nominalizations
- ▶ Conclusion

# The analysis in a nutshell

$\varphi$ -probes **must be licensed** to agree with and license nominal arguments.

- ▶  $\varphi$ -probes are merged as deficient  
⇒ cannot expone full agreement and cannot license nominals.
- ▶ Full  $\varphi$ -feature probing must be licensed by the highest head in the extended projection –  $C^0$ .

## West Circassian nominalizations:

- ▶ Contain structure up to TP, including verbal  $\varphi$ -probes  
( $\text{Appl}^0$ ,  $v^0$ , and  $T^0$ ).
- ▶ The  $\varphi$ -probes are **deficient** in the absence of  $C^0$ .

# Licensing polysynthetic $\varphi$ -probes

- ▶ West Circassian polysynthetic  $\varphi$ -agreement involves multiple  $\varphi$ -probes:  $T^0$ ,  $v^0$ , and  $\text{Appl}^0$ .
  - ▶ expounded as distinct morphemes
  - ▶ separated by morphology which is retained in absence of  $\varphi$ -agreement
- ▶ If c-commanded by  $C^0$ , they are licensed as full  $\varphi$ -probes.
  - ⇒ may expone agreement
  - ⇒ may license DPs
- ▶ If they are not c-commanded by  $C^0$ , they are deficient.  
(e.g. in nominalizations)

# Multiple verbal $\varphi$ -probes

Agreement prefixes expone separate  $\varphi$ -probes:

- ▶ transparent agglutinating morphology
- ▶ prefixes may be separated by non-agreement morphology  
**which is retained in nominalizations**

tə-          q-      jə-          ʁe-č'ə-ž'  
1PL.ABS- DIR- 3SG.ERG- CAUS-rise-again

's/he raised us again'

**FINITE**

jə-          qe-      ʁe-č'ə-n  
3SG.POSS- DIR- CAUS-rise-NML

'its raising' (<http://adyghe.web-corpora.net/>)

**NOMINALIZATION**

# Multiple verbal $\varphi$ -probes

Agreement prefixes expone separate  $\varphi$ -probes:

- ▶ transparent agglutinating morphology
- ▶ prefixes may be separated by non-agreement morphology  
**which is retained in nominalizations**

šheč'afe Ø- a- f- jə- šə-š'təʔ  
respect **3ABS- 3PL.IO- BEN- 3SG.ERG-** do-IPF.PST

'He was showing respect for them.'

**FINITE**

pš'ə- šheč'efe- fe- šə-č'e  
prince- respect- **BEN-** do-NML

'showing respect for princes'

**NOMINALIZATION**

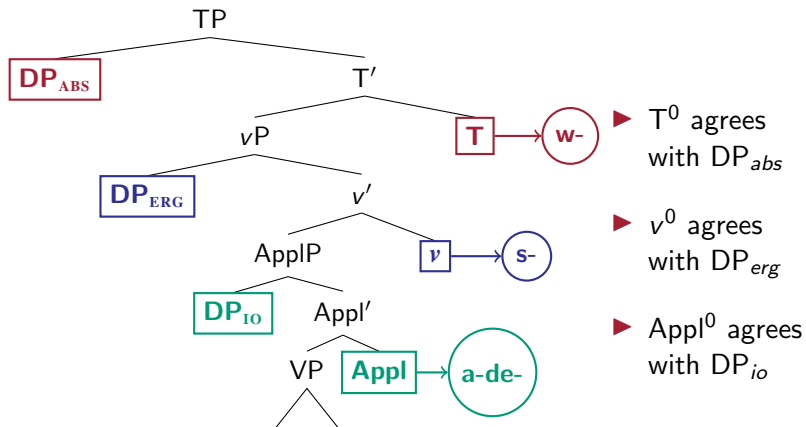
(<http://adyghe.web-corpora.net/>)



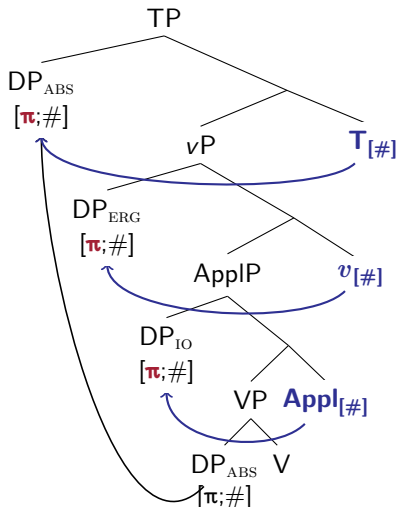
# Verbal $\phi$ -agreement

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

'I brought you with them.'

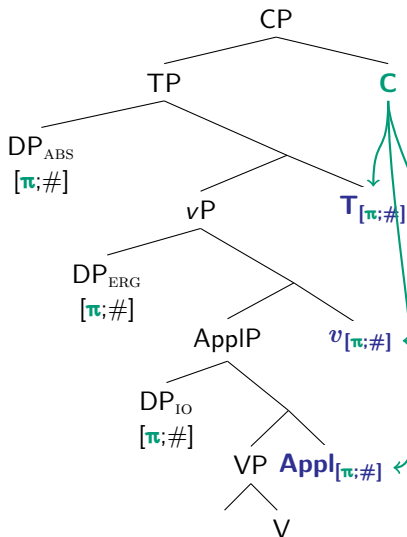


# Full $\varphi$ -agreement is licensed by $C^0$



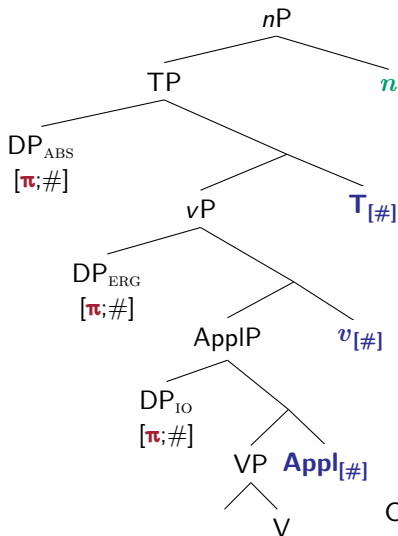
- ▶  $\text{Appl}^0$ ,  $v^0$  and  $T^0$  are merged deficient:  
✓ number ✗ person
- ▶  $\text{Appl}^0$  agrees with  $\text{DP}_{\text{IO}}$ .
- ▶  $v^0$  agrees with  $\text{DP}_{\text{ERG}}$ .
- ▶  $T^0$  agrees with and attracts  $\text{DP}_{\text{ABS}}$ .
- ▶  $[\pi]$  on DP arguments is unchecked.

# Full $\varphi$ -agreement is licensed by $C^0$



- ▶  $C^0$  is merged and agrees with  $T^0$ ,  $v^0$  and  $\text{Appl}^0$ .
- ▶ Licenses  $[\pi]$  on lower probes.
- ▶ Probes check  $[\pi]$  on DPs and license them.
- ▶ Probes are spelled out with fully specified  $\varphi$ -features.

# Deficient $\varphi$ -agreement without $C^0$



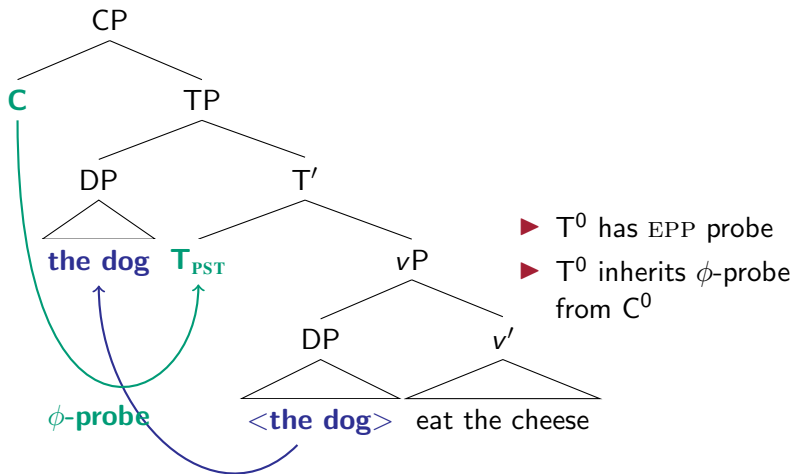
**TP is embedded under  $n^0$ :**

- ▶ Verbal probes remain deficient.
- ▶  $[\pi]$  on DPs remains unchecked  
 $\Rightarrow$  DPs remain unlicensed.
- ▶ No exponent for deficient  $[\#]$  agreement  
 $\Rightarrow$  probes are not spelled out overtly.

Compare with C-to-T feature inheritance!

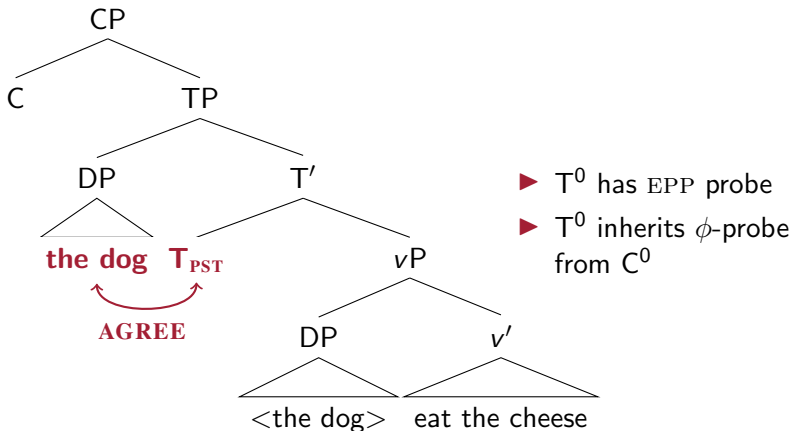
# Compare with feature inheritance: T licensed by C

Chomsky (2000, 2001) on English:



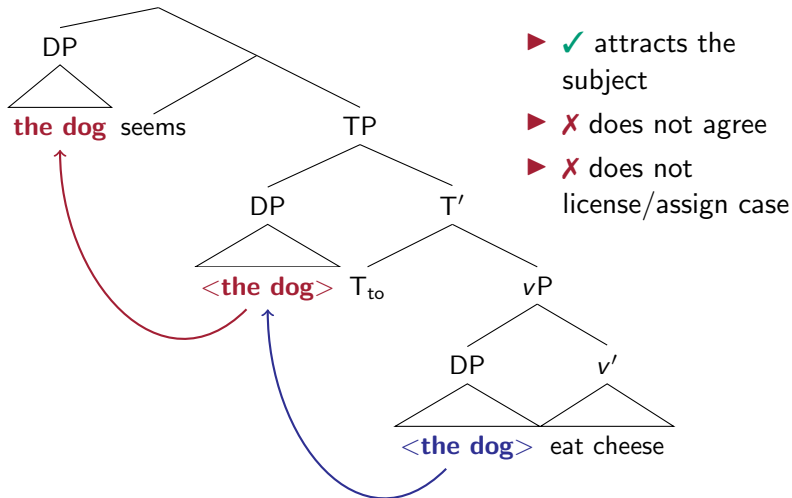
# Compare with feature inheritance: T licensed by C

Chomsky (2000, 2001) on English:



# $T^0$ is a defective EPP probe

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



# Deficient $\varphi$ -probes can license $\varphi$ -deficient nominals

Deficient [ $\#$ ] probes in nominalizations cannot license full DPs.

**Prediction:**  $\varphi$ -deficient nominals should be possible in nominalizations.

## Confirmed by:

1. anaphors: specified only for [ $\#$ ]

(Kratzer 2009; Reuland 2011; Sundaresan 2020, a.o.)

2. PRO: unspecified for  $\varphi$ -features (e.g. Chomsky and Lasnik 1993; Landau 2015)

3. structurally deficient NPs: not specified for  $\varphi$ -features



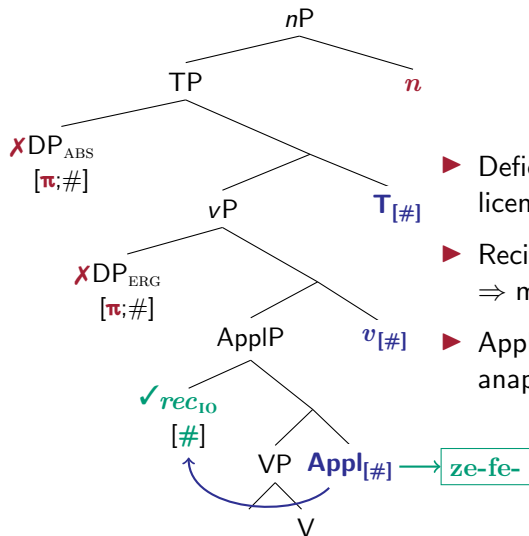
# Deficient agreement with anaphors

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

‘their sewing of dresses for each other’

- ▶ Anaphor is specified only for [#].
- ▶ Deficient probe can license anaphor by checking [#] feature.

# $\varphi$ -deficient anaphors are licensed



- ▶ Deficient  $\varphi$ -probes cannot license full DPs.
- ▶ Reciprocal only has  $[\#]$   
 $\Rightarrow$  may be licensed by  $Appl^0$ .
- ▶  $Appl^0$  expones  $\varphi$ -deficient anaphor agreement.

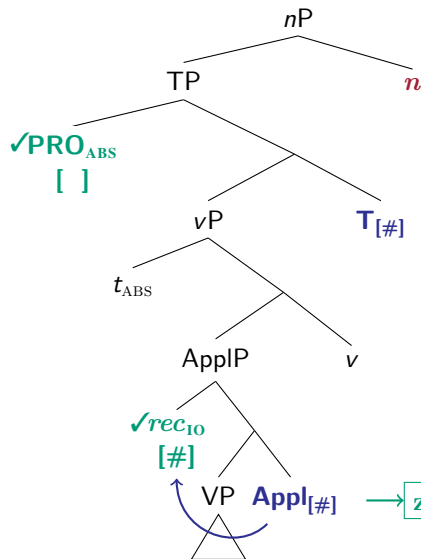
# Licensing PRO in nominalizations

- ▶ PRO is unspecified for  $\varphi$ -features  
 $\Rightarrow$  does not require licensing by  $\varphi$ -agreement.
- ▶ Nominalizations may contain PRO.

[	<b>PRO</b> <sub>PL</sub>	qə-	<b>ze-</b>	de-	š <sup>w</sup> e-nə-r ]	<i>pro</i> <sub>SG</sub>	səg <sup>w</sup> rjehə
		DIR-	<b>REC-</b>	COM-	dance-NML-ABS		I like

lit. 'I<sub>SG</sub> like [ **PRO**<sub>PL</sub> dancing with each other ].' (Ershova 2020:457)

# $\varphi$ -deficient PRO is licensed



- ▶ PRO is unspecified for  $\varphi$ -features  
 $\Rightarrow$  does not need  $\varphi$ -licensing
- ▶ no  $\varphi$ -agreement  
 $\Rightarrow$  no exponence on  $T^0$
- ▶ reciprocal triggers deficient  $\varphi$ -agreement  
 $\Rightarrow$  spelled out on  $Appl^0$

# Licensing of NPs without $\varphi$ -features

- ▶ Structurally deficient NPs are not specified for number or person ~ generic interpretation
- ▶ They do not require  $\varphi$ -licensing  
⇒ may appear in nominalizations.
- ▶ NPs are pseudo-incorporated  
= licensed by adjacency (next section)

jə-            **ṣ<sup>w</sup>əhaftən-**    š'ə-    g<sup>w</sup>əB<sup>w</sup>ə    -č'e  
3SG.POSS- **gift-**                      LOC- hope    -NML

'her anticipating of presents'

# Summary: Deficient $\varphi$ -probes in nominalizations

- ▶ Nominalizations include a **full TP**.
- ▶ The verbal  $\varphi$ -probes are **deficient** without licensing by  $C^0$ .
- ▶ Presence of deficient  $\varphi$ -probes is confirmed by licensing of  $\varphi$ -deficient nominals: anaphors, PRO and bare NPs.

## Licensing in nominalizations:

1.  $\varphi$ -deficient pronouns (PRO and anaphors)  
→ by  $\varphi$ -deficient verbal probes
2. bare NPs (no  $\varphi$ -features) → by adjacency
3. + **one full DP** → as possessor

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## NOMINAL LICENSING

- ▶ Background on West Circassian
- ▶ Functional structure of nominalizations
- ▶  $\varphi$ -probe licensing by  $C^0$
- ▶ Licensing arguments in nominalizations
- ▶ Conclusion



# Nominal licensing of arguments in nominalizations

In nominalizations:

- ▶ verbal  $\varphi$ -probes are deficient  $\Rightarrow$  cannot license full DPs
- ▶ arguments may be licensed **by the nominal syntax**
  - ▶ bare NPs — by adjacency  
= DP-internal syntax-to-prosody mapping
  - ▶ one full DP — as possessor = by nominal  $\varphi$ -probe Poss<sup>0</sup>

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# Pseudo-incorporation through syntax-to-prosody mapping

Phrasal modifiers and complements in DP are pseudo-incorporated because DP phase is mapped to a single phonological word.

(Ershova 2020)

## MATCH PHASE(-TO-WORD):

A **phase** in syntactic constituent structure must be matched by a **prosodic word** in phonological representation.

- ▶ Match Theory constraint (Selkirk 2011)
- ▶ Inspired by Compton and Pittman (2010); Barrie and Mathieu (2016)

# One word, but no syntactic noun incorporation

- ▶ **nominal head** + **modifiers** = one phonological word  
(← pass language-specific wordhood diagnostics)

(Lander 2017; Ershova 2020)

- ▶ incorporated roots:

- ▶ may be modified

š'e -[ʔaʂə -š'e] -fabe -r  
milk -[sweet -too] -warm -ABS

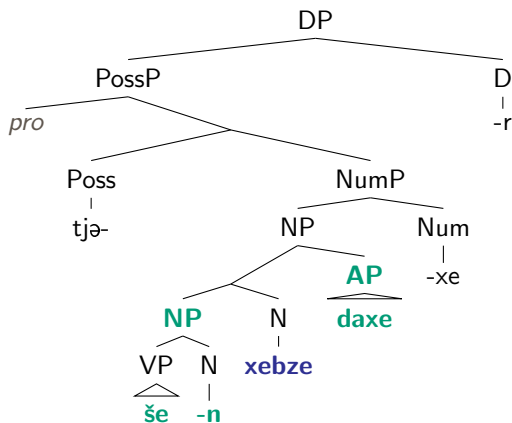
'the warm milk that is too sweet' (Lander 2017:85)

- ▶ may be phrasal

[ç<sup>w</sup>eqe- əč'jə- š'əʁən]- t<sup>w</sup>əč'an -xe -r  
[footwear- and- clothes]- shop -PL -ABS

'shops of shoes and clothes' (Lander 2017:93)

# DP phase is mapped to one phonological word



*tjə-*      [še -n]-      xebze -daxe      -xe -r  
1PL.POSS- lead -NML- rule    -beautiful -PL -ABS

'our beautiful rules of conduct'

Nominals must be licensed:

- ▶ by  $\varphi$ -agreement
- ▶ by adjacency to the head that selects it (e.g. Levin 2015; Branan 2021)

## In West Circassian:

An NP is licensed by adjacency if it is pronounced

1. **in same phonological word** as the head that selects it, and
2. adjacent to **the projection of the head** that selects it.

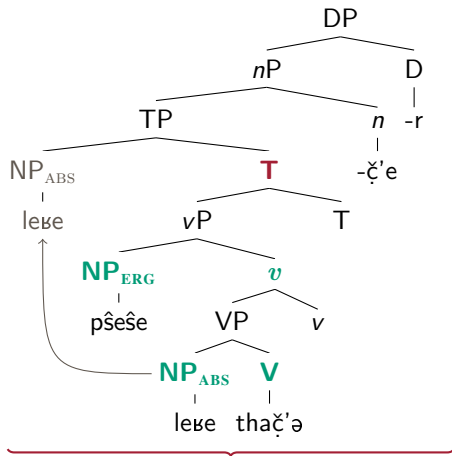
# Licensing by adjacency in nominalizations

An NP is licensed by adjacency if it is pronounced

1. in same phonological word as the head that selects it, and
2. adjacent to the projection of the head that selects it.

⇒ **NPs are pronounced in their theta-positions.**

# NPs are pronounced in their theta-positions



(\*lebe-) pšeše- ✓lebe- thač'ə-č'e-r  
 (\*dish-) girl- dish- wash-NML-ABS

'the girls' manner of dish-washing'

- ▶ NP<sub>ABS</sub> is selected by V<sup>0</sup> and moves to Spec,TP
- ▶ NP<sub>ERG</sub> is selected by v<sup>0</sup>  
 ⇒ licensed by adjacency to v'
- ▶ NP<sub>ABS</sub> in Spec,TP is not adjacent to V<sup>0</sup>  
 ⇒ must be pronounced in base position



# Nominal licensing of arguments in nominalizations

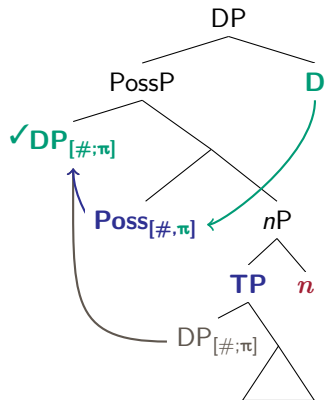
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# $\varphi$ -licensing by $\text{Poss}^0$

pšaše-m    jə-    heč'e- je-    že    -n  
girl-OBL    3SG.POSS- guest- DAT- wait -NML

'the girl's waiting for guests'



- ▶ Nominalizations may contain **one DP argument**.
- ▶  $\varphi$ -licensed by  $\text{Poss}^0$ .
- ▶  $\text{Poss}^0$  is deficient  
— like verbal  $\varphi$ -probes.  
⇒ licensed by  $D^0$ .

# Nominal versus verbal licensing

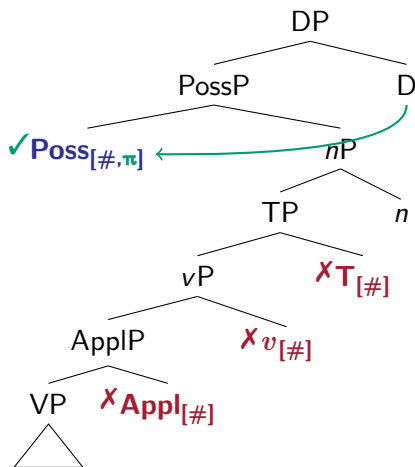
## $\varphi$ -licensing

- ▶ in DP: by  $\text{Poss}^0$  → licensed by  $D^0$
- ▶ in CP: by  $T^0$ ,  $v^0$  and  $\text{Appl}^0$  → licensed by  $C^0$

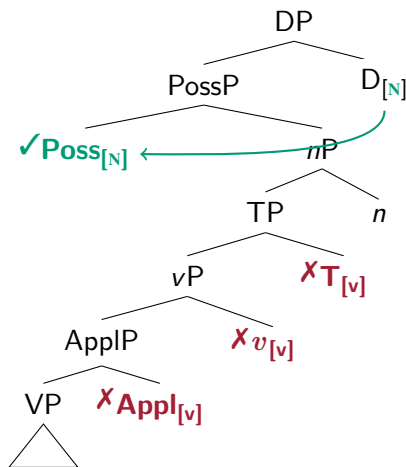
**In nominalizations:**  $D^0$  licenses  $\varphi$ -probe on  $\text{Poss}^0$

**Question:** Why can't  $D^0$  license  $\varphi$ -probes on  $T^0$ ,  $v^0$  and  $\text{Appl}^0$ ?

# Why can't D<sup>0</sup> license verbal $\varphi$ -probes?



# Why can't $D^0$ license verbal $\varphi$ -probes?



- ▶  $\varphi$ -probe licensing = Agree between
  1. highest head of extended projection
  2. heads of the **same extended projection**
- ▶ Agree in the category feature:
  - in CP – [V]
  - in DP – [N] $\Rightarrow$   $D^0$  cannot license verbal  $\varphi$ -probes

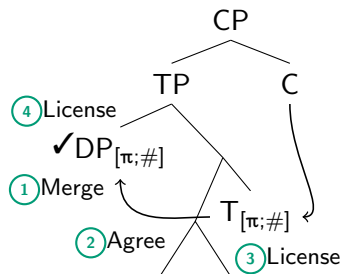
- ▶ Background on West Circassian
- ▶ Functional structure of nominalizations
- ▶  $\varphi$ -probe licensing by  $C^0$
- ▶ Licensing arguments in nominalizations
- ▶ Conclusion

# Wrapping up: $\varphi$ -probes must be licensed

- ▶ West Circassian nominalizations display a diminished verbal syntax despite containing a full TP.
- ▶ The  $\varphi$ -probes in nominalizations are deficient
  - $\Rightarrow$  may only license  $\varphi$ -deficient nominals and expone  $\varphi$ -deficient agreement.
- ▶ Fully specified  $\varphi$ -probes are **counter-cyclically** licensed by Agree in the category feature (V or N)
  - $\Rightarrow$  verbal probes must be licensed by  $C^0$
  - nominal probes must be licensed by  $D^0$

# Counter-cyclic nominal licensing

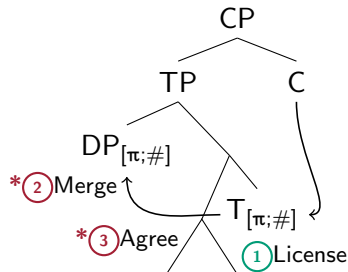
- ▶ Nominals are licensed by  $\varphi$ -feature checking.
- ▶ Deficient  $\varphi$ -probes agree with, but cannot license arguments until  $C^0$  is merged.
- ▶ Constrained counter-cyclicity:
  - ▶ Agree and Merge apply cyclically.
  - ▶ Feature checking and licensing are delayed.  
~ Pesetsky and Torrego's (2007) feature sharing.





# Counter-cyclic nominal licensing

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~ Pesetsky and Torrego's (2007) feature sharing.



- ▶ Agree between  $C^0$  and lower verbal heads independently motivated by variable islandhood effects and phase unlocking (Ershova to appear a).
- ▶ 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 to appear)
- ▶ Alternative account to mixed extended projections (Borsley and Kornfilt 2000; Kornfilt and Whitman 2011)

# Thank you!

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

# Reflexive agreement with absolutive

mə pšašem zə- q- jə- ɸe- š<sup>w</sup>e -ž'ə -ɸ  
this girl(ERG) **REFL.ABS-** **DIR-** 3SG.ERG- CAUS- dance -RE -PST

'This girl made herself dance.'

**FINITE**

jə- zə- qə- ɸe- š<sup>w</sup>a -č'e  
3SG.POSS- **REFL.ABS-** **DIR-** CAUS- dance -NML

'her manner of making herself dance'

**NOMINALIZATION**