Moving away from antilocality
A defense of very local movement

Ksenia Ershova

kershova@mit.edu

Nikita Bezrukov

nikitab@sas.upenn.edu

Massachusetts
Institute of
Technology

Penn
UNIVERSITY of PENNSYLVANIA

April 9-11, 2024
LASER Workshop

tinyurl.com/EBLASER

Constraints on movement

Standard assumption: movement must be local.

Example:

> ### Phase Impenetrability Condition (Chomsky 2000:108)
>
> In phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations.

The other side of the coin: Can movement be **too local**?

The antilocality conjecture

▶ A chain link must "have some length". (Bošković 1997:27)

▶ "Movement must not be too local." (Grohmann 2003:26)

▶ "[M]ovement cannot be too short." (Abels 2012:107)

Example definition:

> ### Spec-to-Spec Anti-locality (Erlewine 2020:2)
>
> "Movement of a phrase from the Specifier of XP must cross a maximal projection other than XP."

(See also: Saito and Murasugi 1999; Grohmann and Haegeman 2003; Grohmann and Panagiotidis 2015; Ticio 2005; Schneider-Zioga 2007; Abels 2012; Grohmann 2011; Bošković 2015, 2016; Erlewine 2016, 2020; Brillman and Hirsch 2016; Brillman 2017; Amaechi and Georgi 2019; Deal 2019; Martínez Vera 2019; Davis 2020, 2023; Newman 2020; Zyman 2021; Arregi and Murphy 2022; Branan 2022; Toquero-Pérez 2022; Fritzsche 2023; Petersen O'Farrill 2023; Richards to appear; Bondarenko and Davis to appear)

Is antilocality **theoretically** motivated?

- ▶ Does the computational system need a generalized antilocality constraint?

- ▶ Or is superfluous 'too local' movement independently ruled out?

Is antilocality **empirically** motivated?

- ▶ Do 'antilocal' phenomena have alternative explanations?

Is antilocality empirically **adequate**?

- ▶ Does very local movement not exist at all?

Our response

A generalized antilocality constraint is **theoretically unmotivated**.

▶ The ban on very local movement arose as a response to other theory-internal assumptions.

▶ Once those are discarded, the constraint becomes superfluous.

Antilocality is **empirically unnecessary**.

▶ Core phenomena explained by antilocality have adequate alternative explanations.

Antilocality is **empirically inadequate**:

> **Very local movement exists!**

Our response

A generalized antilocality constraint is **theoretically unmotivated**.

- ▶ The ban on very local movement arose as a response to other theory-internal assumptions.
- ▶ Once those are discarded, the constraint becomes superfluous.

Antilocality is **empirically unnecessary**.

- ▶ Core phenomena explained by antilocality have adequate alternative explanations.

Antilocality is **empirically inadequate**:

Very local movement exists!

▶ **A defense of very local movement:**
possessor relativization in West Circassian.

▶ **Theoretical groundwork of antilocality:**
a brief history and critique.

▶ **Antilocal phenomena explained in other ways:**
constraints on subject extraction.

▶ **A defense of very local movement:**
   possessor relativization in West Circassian.

▶ **Theoretical groundwork of antilocality:**
   a brief history and critique.

▶ **Antilocal phenomena explained in other ways:**
   constraints on subject extraction.

Very local movement exists

Case study: possessor relativization in West Circassian

▶ DP is a phase

(e.g. Matushansky 2005; Hicks 2009; Bošković 2013)

⇒ SpecDP (= phase edge) is opaque

(e.g. Chomsky 2008; Bošković 2015; Ershova 2024)

▶ DP_{POSS} is **not** opaque

⇒ merged below Spec,DP
        —in Spec,PossP
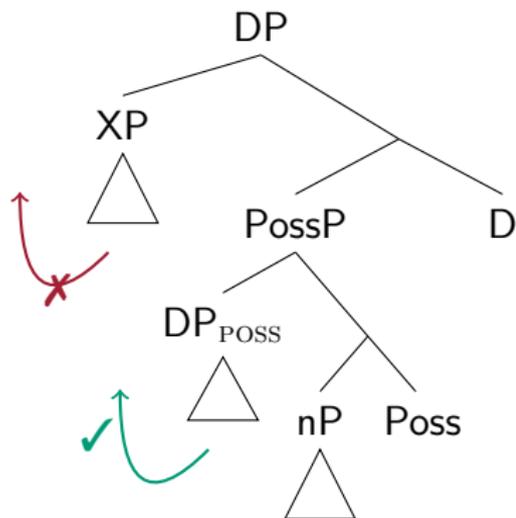
Very local movement exists

Case study: possessor relativization in West Circassian

▶ DP is a phase

(e.g. Matushansky 2005; Hicks 2009; Bošković 2013)

$\Rightarrow$ DP$_{\text{POSS}}$ Ā-moves to Spec,DP

(successive-cyclically)

▶ **D and Poss are adjacent**

Poss triggers allomorphy on D

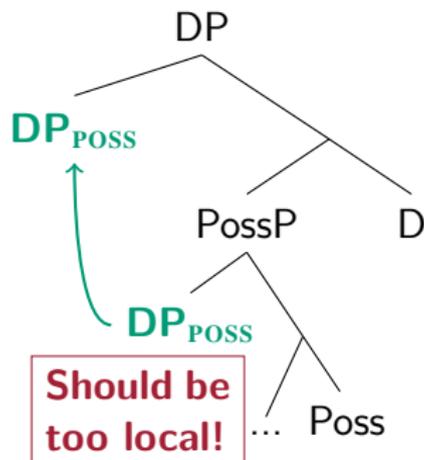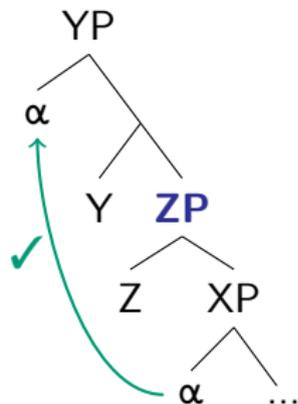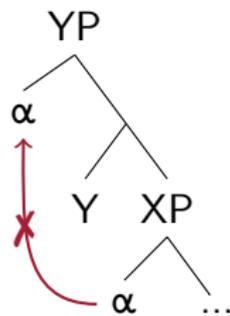but they are not linearly adjacent:
Poss is a prefix, D is a suffix
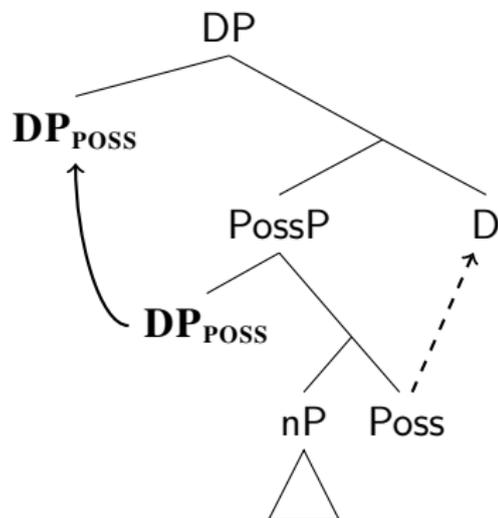
> **Possessor movement violates Spec-to-Spec antilocality.**

Spec-to-Spec Antilocality
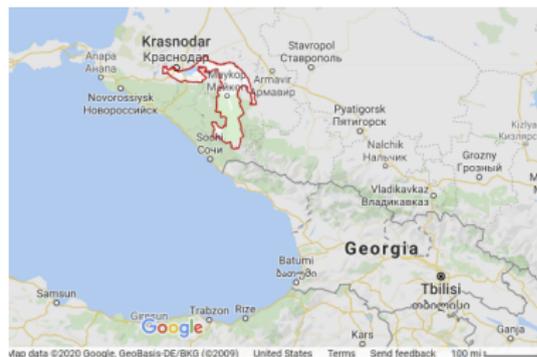
Erlewine (2020:2)

"Movement of a phrase from the Specifier of XP must cross a maximal projection other than XP."

(Also: Bošković 2015, 2016; Erlewine 2016, a.o.)

West Circassian

West Circassian (or Adyghe):

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

Data:

- ▶ fieldwork on the **Temirgoy dialect** in the Shovgenovsky district of Adygea (KE in 2017-2019)
- ▶ Adyghe Corpus by Timofey Arkhangelskiy, Irina Bagirokova, Yury Lander, and Anna Lander (`http://adyghe.web-corpora.net/`)
- ▶ other published sources

Head marking and pro-drop:

səqəpfarjəʁeλeʁ^{w}əʁ

me		**for your sake**		**to them**		**he**				
sə-	qə-	p-f-		a-r-		jə-		ʁe-	λeʁ^{w}ə	-ʁ
1SG.ABS-	DIR-	2SG.IO-BEN-		3PL.IO-DAT-		3SG.ERG-		CAUS-	see	-PST

'He showed me to them for your sake.'

(Korotkova and Lander 2010:301)

Agreement order: ABS- IO+APPL- ERG-

Possessor agreement:

s-	šəpχʷəxer
1sg.poss-	sister.PL.ABS

'**my** sisters'

Case marking is ergative

S

mə pŝaŝe-**r**   daxew qaŝʷe
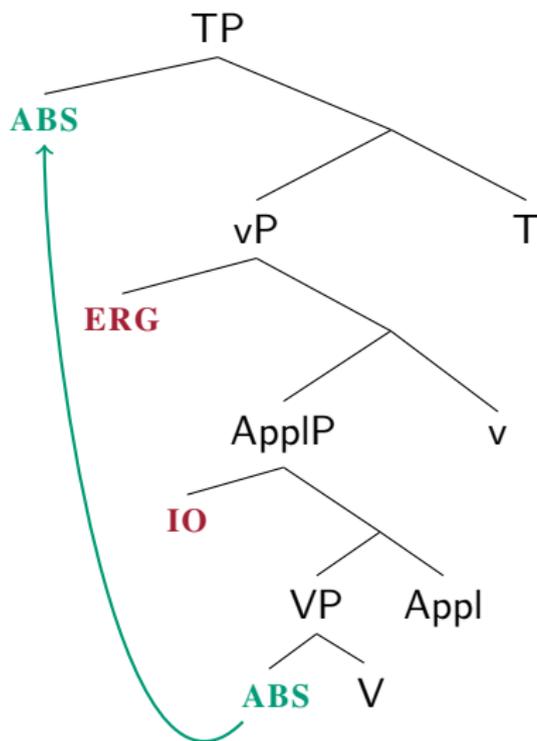this girl-**ABS**   well   dances

'This girl dances well.'

A   **O**

sabəjxe-**m**   haxe-**r**   qaλɐʁʷəʁ
children-**ERG** dogs-**ABS** saw

'The children saw the dogs.'

- ABS DP obligatorily raises to Spec,TP.

- ERG and IO DPs remain in situ.

- **Evidence:** parasitic gaps and reciprocal binding

  (Ershova 2019, 2021, 2023)

Structure of relative clauses

Finite clause:

a-š'	txəλə-r	[mə çəfə-m]
that-ERG	book-ABS	this person-OBL

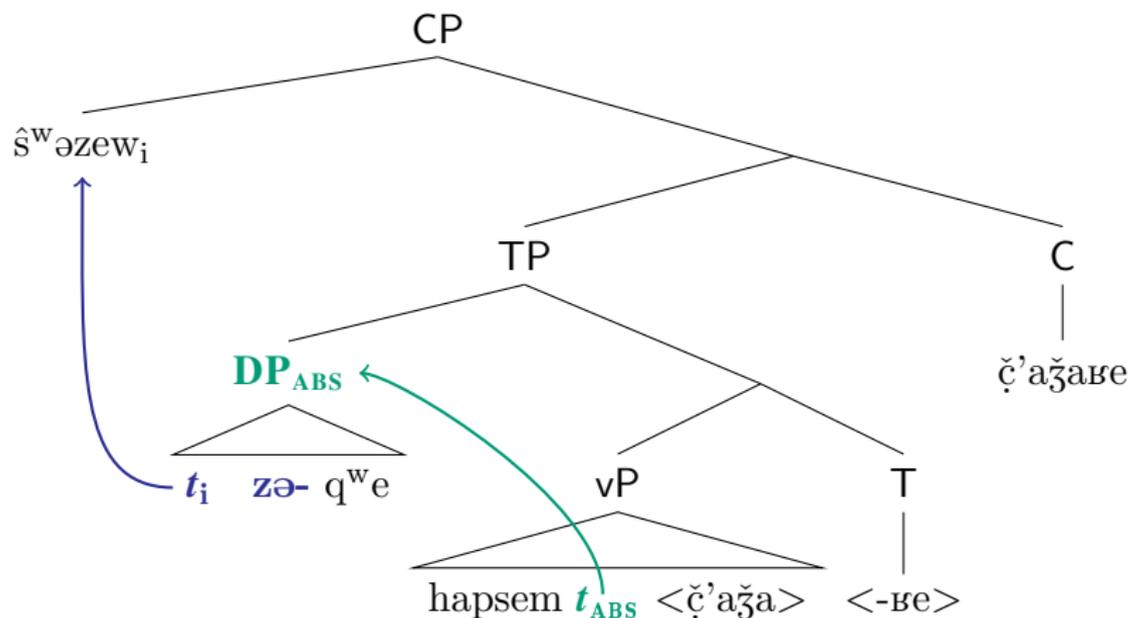| Ø-	**Ø-**	r-	jə-	tə-ʁ
3ABS-	**3SG.IO-**	DAT-	3SG.ERG-	give-PST

'S/he gave a book to this person.'

Relative clause:

WH-AGREEMENT

WH-MOVEMENT

[**Op** txəλə-r __IO Ø- **ze-** r- jə- tə-ʁe]

book-ABS   3ABS- **WH.IO-** DAT- 3SG.ERG- give-PST

çəfə-r

person-ABS

'the person to whom s/he gave the book' (Lander 2012:276)

WH-AGREEMENT

WH-MOVEMENT

ŝ^{w}əzew$_i$ [__**POSS**   **zə-**   q^{w}e]**(ABS)**   hapsem

woman   **WH.POSS-** son   prison.OBL

Ø-Ø-č-a-ʒaʁe-r

3ABS-3IO.SG-LOC-3PL.ERG-throw.PST.ABS

'the woman whose son they threw in jail'

✓ from ABS internal argument   ✗ from ERG DP

✓ from ABS external argument   ✗ from IO DP

✓ from complement of P   **phase edges**

✓ **from possessor of ABS**   Spec,vP (Chomsky 2000, etc.)

       ⇒ **not phase edge**   Spec,ApplP

                                            (McGinnis 2000, 2001)

                                              (Ershova 2024)

ŝʷəzewᵢ [*t*ᵢ zə-   qʷe]   hapsem   *t*ₐʙₛ   č'aʒaʁe   -r
woman   WH.POSS- son   prison.OBL   they threw -ABS

'the woman whose son they threw in jail'

Possessor relativization from ABS external argument
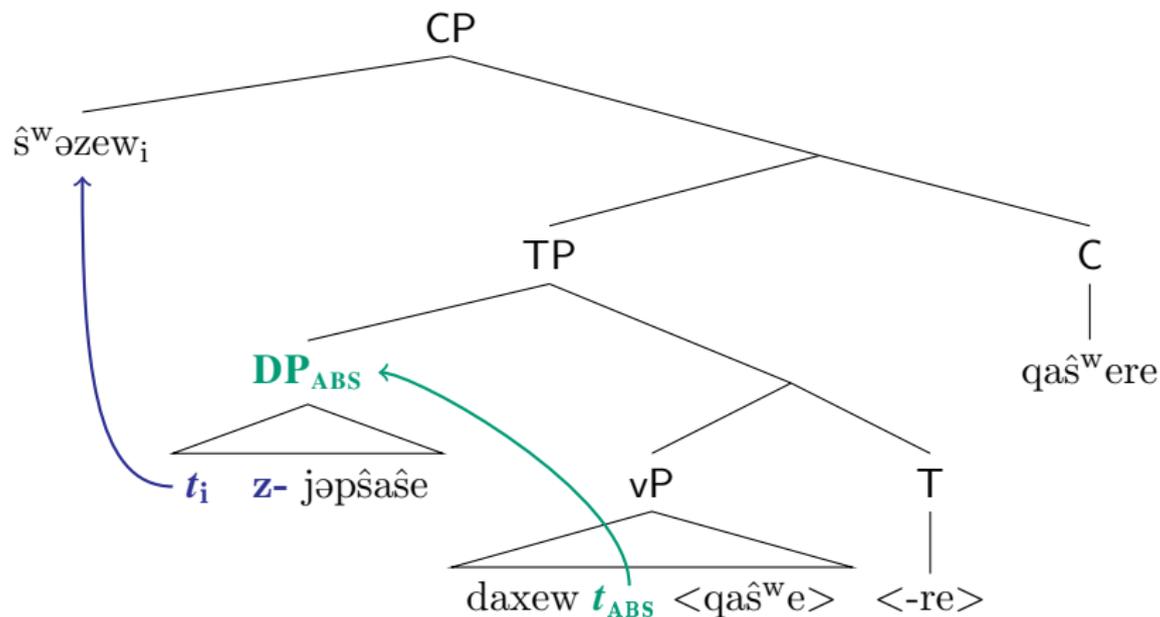
ŝʷəzew$_i$ [t_i z- jəpŝaŝe] daxew t_{ABS} Ø-qaŝʷere -r
woman **WH.POSS-** girl well 3ABS-dance.PRS -ABS
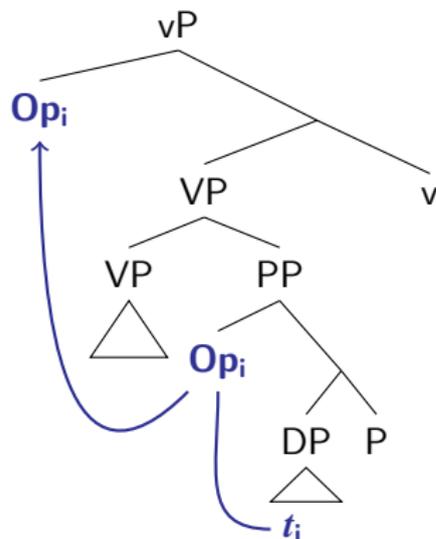
'the woman whose daughter dances well'

Op$_i$ [$_{PP}$ t_i **zjə-**wəne dež'] mezə-r ʁerjeḳʷe
 WH.POSS-house at forest-ABS last year

Ø-Ø-š'ə-stəʁer
3ABS-3SG.IO-LOC-burn.PST.ABS

'the one near whose house the forest burned last year'
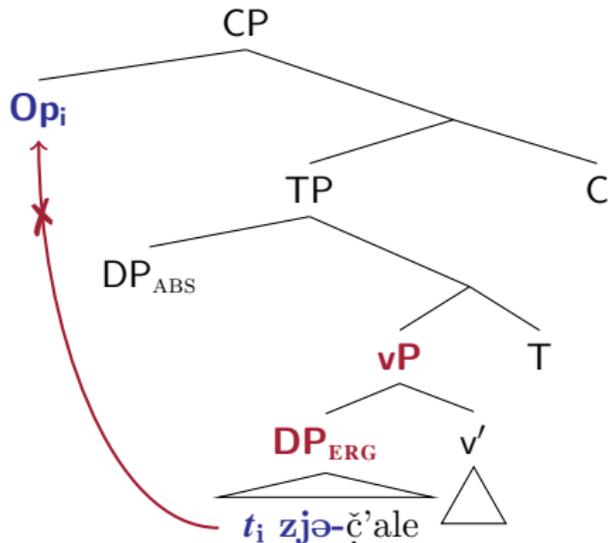
Relativization from phase edges is ungrammatical
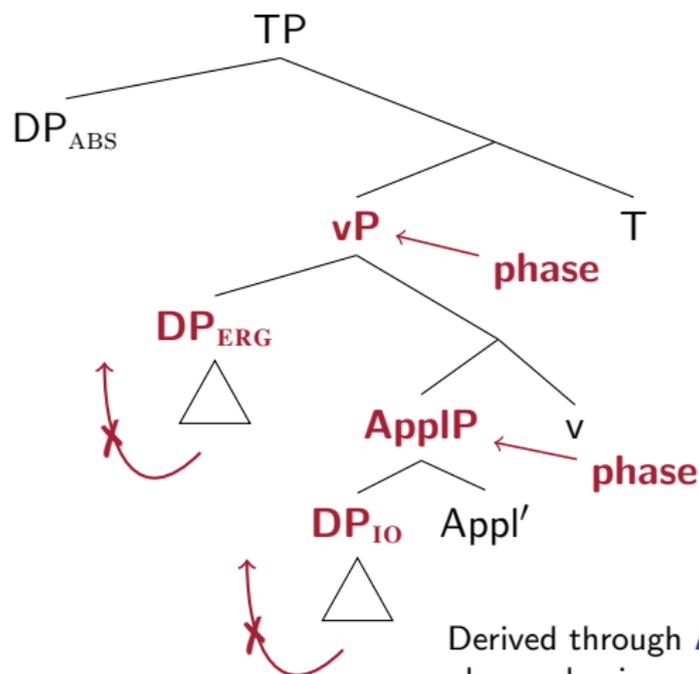
Derived through **Agree-based phasehood**:
phase edge is opaque because phase intervenes
(Rackowski and Richards 2005; van Urk and Richards 2015; Halpert 2019; Ershova 2024) (Appendix)

* Op$_i$ [t_i **zj**ə-č̣'ale   ] daxew wered Ø-q-ə-ʔʷerer
                 WH.POSS-boy   well   song   3ABS-DIR-3SG.ERG-sing.PRS.ABS

Intended: 'the one whose son sings well'

* ŝʷəzewᵢ [**tᵢ zə-** qʷe] č'elejeʁažer Ø-je- çeçaʁer
  woman   **WH.POSS-** son   teacher.ABS   3ABS-3SG.DAT-scold.PST.ABS

Intended: 'the woman whose son the teacher scolded'
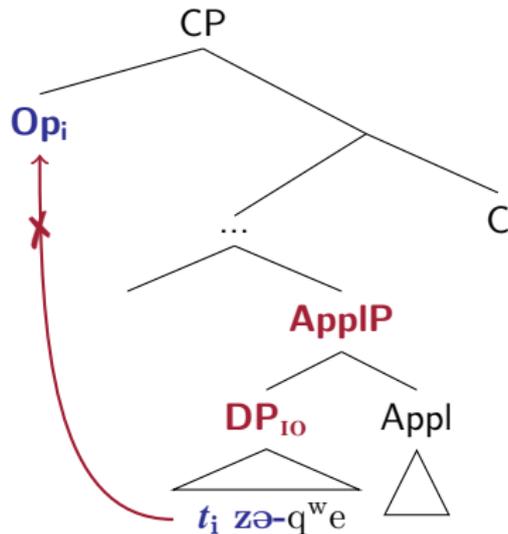
Interim summary: Phase edges are opaque

Possessor relativization is possible from:

✓ ABS internal argument
✓ ABS external argument
}
Spec,TP

✓ complement of P **PP = adjunct to VP**

Possessor relativization is impossible from:

✗ ERG external argument
✗ IO applied object
}
phase edges

> Possessor relativization is also possible from possessor DPs
> ⇒ **possessors are not at a phase edge (Spec,DP)**

pŝaŝew$_i$ **[$_{DP}$ [$_{DP}$** t_i **zə-**šəpχ^w **](POSS)**   Ø-jəpŝeŝeʁ^w **](ABS)**$^\blacklozenge$
girl   **WH.POSS-**sister   3SG.POSS-girlfriend
dexededew   Ø-qaŝ^{w}ere]   -r
very beautifully   3ABS-dance.PRS -ABS

'the girl whose sister's friend dances very beautifully'

$^\blacklozenge$Only possible from ABS DP.

⇒ **Possessor DP is not in Spec,DP (=phase edge).**

- Possessor is merged in Spec,PossP immediately under DP (Szabolcsi 1983, 1994)

- Common in literature on Turkic

  (Kharytonava 2011; Tat 2013; Lyutikova and Pereltsvaig 2015; Öztürk and Taylan 2016; Ótott Kovács 2023)

- Correlates with:
  - spec-head ϕ-agreement
  - case licensing by Poss

- D and Poss are structurally adjacent

  evidence from morphology

(se) s-šǝ
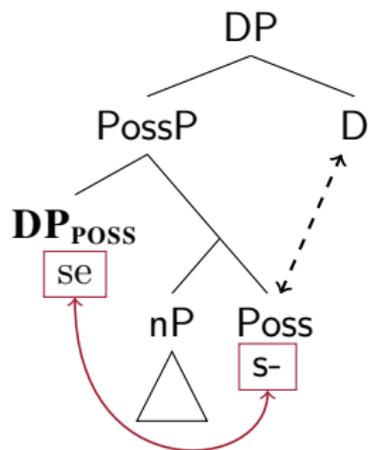
I   1SG.POSS-brother

'my brother'

The morphology of D = case suffixes

Overt case suffixes correlate with definiteness/specificity.

(Arkadiev and Testelets 2019)

ʔaze-deʁʷə-**m**   wjəʁeχʷəž'əš't
doctor-good-**ERG**   will cure you

'**The** good doctor will cure you.'

ʔaze-deʁʷə   wjəʁeχʷəž'əš't
doctor-good   will cure you

'**A** good doctor will (be able to) cure you.' (Arkadiev and Testelets 2019:726)

Case suffix = D (definiteness + case)

Structural adjacency between heads is difficult to determine:

Covert structure vs. absence of structure?

In West Circassian:

Adjacency is diagnosable in the morphology.

D undergoes morphologically conditioned **case fusion** with **structurally adjacent heads**.
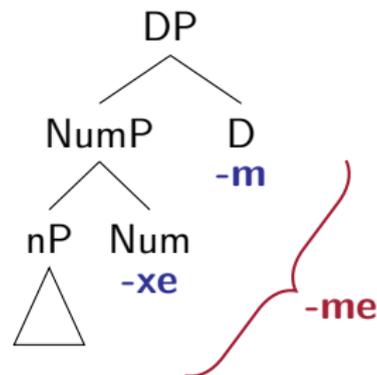
Case fusion with number

Plural + oblique case:

Two suffixes: č'ale-**xe-m** 'boy-PL-OBL'

One suffix: č'ale-**me** 'boy-PL.OBL'

> Case fusion:
>
> [PL] – [OBL] ⟶ [PL,OBL]

Structural adjacency + linear adjacency

Case fusion with Poss
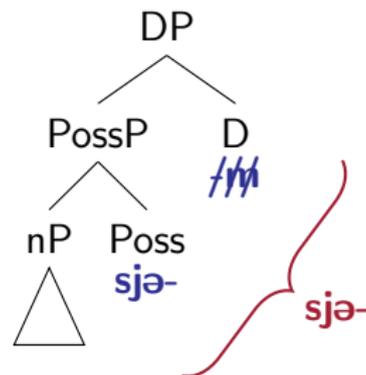
Singular DP w/possessor: no overt case marking

sjə-nəbǯeʁʷə**(*-m)**
1SG.POSS-friend**(*-OBL)**

'my friend'

Prefix + suffix:
[POSS] – [OBL] ⟶ [POSS,OBL]

Possessive prefix ≠ D: PossP can appear without DP (Appendix)

Affixes are not linearly adjacent ⇒ | **Structural adjacency** |

Confirmation: fusion is disrupted by intervening head

Poss–D fusion disrupted by Num

Possessive + overt Num:

- ▶ overt case marking

Plural suffix:

sjə-nəbǯeʁʷə-**xe** -m
1SG.POSS-friend-PL-OBL

'my friends' (Adyghe Corpus)

Numeral:

sjə-š'ərəqʷ-**jə-ţʷə** -m
1SG.POSS-boot-LNK-two-OBL

'my two boots' (Adyghe Corpus)

- ▶ PL+OBL case fusion possible

sjə-nəbǯeʁʷə-**me**
1SG.POSS-friend-PL.OBL

'my friends' (Adyghe Corpus)

POSS does not intervene
⇒ Poss is below Num

DP
├─ NumP
│ ├─ PossP
│ │ ├─ nP
│ │ └─ Poss **sjə-**
│ └─ Num **-xe**
└─ D **-m**

-me
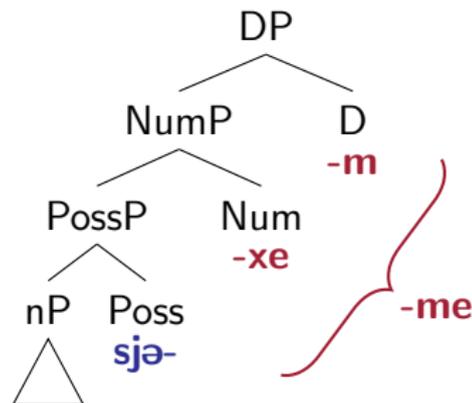
The role of high Num

- ► High Num denotes restrictive plurality
- ► Num-less DPs are ambiguous wrt number

  (Kumakhov 1971; Arkadiev and Testelets 2019; Bagirokova et al. 2022)

with overt case: c̣əfə-**m** 'the person/people'

  (Kumakhov 1971:12, but see Bagirokova et al. 2022)

with possessor: ə-ʔeχ^wambe 'his/her finger(s)'

  (Bagirokova et al. 2022:296)

No morphological number marking ⇒ **no NumP**

D tends to fuse with its neighbor in certain environments.

Enviroment 1: Num + D

č'ale-**me** 'boy-**PL.OBL**'

Two suffixes: [PL] – [OBL] ⟶ [PL,OBL]

Structural adjacency + linear adjacency

Environment 2: Poss + D

sjə-nəbžeʁ^{w}ə '**1SG.POSS**-friend'

A prefix and a suffix: [POSS] – [OBL] ⟶ [POSS,OBL]

Structural adjacency

Morphology:

Poss and D interact across an overt root

$\Rightarrow$ interaction prior to linearization

$\Rightarrow$ Poss and D are structurally adjacent

Syntax:

DP_{POSS} is in Spec,PossP

Ā-moves through Spec,DP

$\boxed{\Rightarrow \textbf{Possessor relativization is very local!}}$
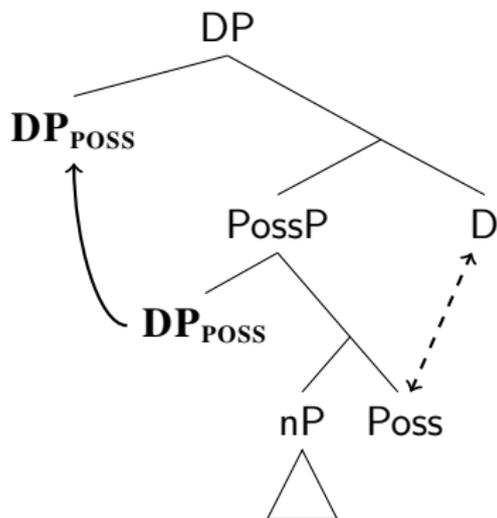
▶ Overt Num disrupts Poss–D fusion

No Num ⇒ fusion:

sjə-nəbžeʁʷə**(*-m)**
1SG.POSS-friend-OBL

'my friend'

Overt Num ⇒ no fusion:
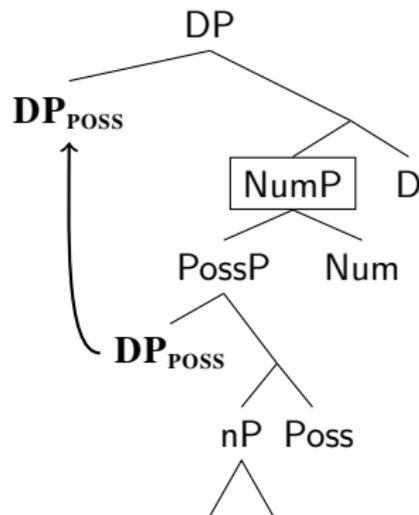
sjə-nəbžeʁʷə-**xe -m**
1SG.POSS-friend-PL-OBL

'my friends'

▶ No overt number ⇒ no NumP

> **Spec-to-Spec Antilocality predicts:**
>
> Spec,PossP→Spec,DP is possible
> **only with overt Number**.

Not confirmed!

Additional structure does not affect possessor relativization

Op$_i$ [$_{DP}$ t_i [$_{NumP}$ [$_{PossP}$ t_i **zjə**-č'ale] **-xe**] -r] bedzerə-m
WH.POSS-boy **-PL** -ABS market-OBL

š'əsλeʁʷəxer
3ABS+3SG.IO+LOC+1SG.ERG+see.PST   ✓**POSS movt over NumP**

'the one **whose sons** I saw at the market' (Ershova 2024:15)

Op$_i$ [$_{DP}$ t_i [$_{PossP}$ t_i **zjə**-č'ale]]   bedzerə-m
WH.POSS-boy   market-OBL

š'əsλeʁʷəxer
3ABS+3SG.IO+LOC+1SG.ERG+see.PST   ✓**POSS movt w/out NumP**

'the one **whose son** I saw at the market'

Properties of phase edges

- ▶ opacity for subextraction

  $\Rightarrow$ possessors are in Spec,PossP, not Spec,DP

- ▶ intermediate site for successive-cyclic movement

  $\Rightarrow$ possessors must move through Spec,DP

...combined with morphological interactions between heads

- ▶ D fuses with Poss $\Rightarrow$ D and Poss are local

provide evidence for **very local movement**:

> Possessor relativization violates Spec-to-Spec Antilocality.

Possessor relativization violates Spec-to-Spec Antilocality.

What are the broader implications?

▶ What does this mean for antilocality theories?

▶ What about 'antilocal' phenomena?

Our response:

We do not need a generalized ban on very local movement.

▶ Generalized antilocality is theoretically unmotivated.

▶ 'Antilocal' phenomena have adequate alternative explanations.

- **A defense of very local movement:**
  possessor relativization in West Circassian.

- **Theoretical groundwork of antilocality:**
  a brief history and critique.

- **Antilocal phenomena explained in other ways:**
  constraints on subject extraction.

The trajectory of antilocality theories

▶ Saito and Murasugi (1999[1993]); Bošković (1994, 1997):
chain links have a minimal length

▶ Grohmann (2003):
*domain-internal movement is banned by the interfaces**

▶ Abels (2003, 2012):
complement of XP cannot move to Spec,XP

▶ Bošković (2015, 2016); Erlewine (2016, 2020):
movement must cross a defined phrasal boundary

**See critiques by Fitzpatrick (2005); Hagstrom (2006); Boeckx (2007, 2008);
Abels (2012).*

The origin: Chain links must have some length

Saito and Murasugi (1999[1993]); Bošković (1994, 1997)

Barriers: movement proceeds by adjunction to a fixed set of (nonargument) XPs (Chomsky 1986)

Locality condition: Minimize Chain Links (Chomsky and Lasnik 1993)

▶ Movement must proceed through every available landing site.

▶ Representational approach: assign violations after movement.
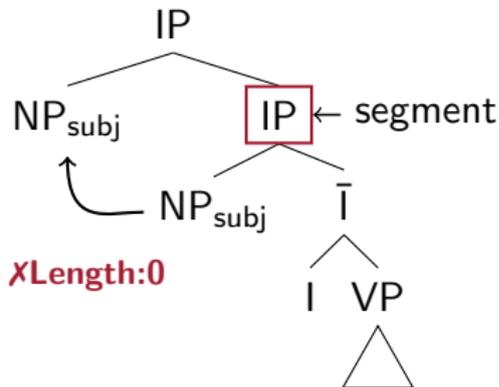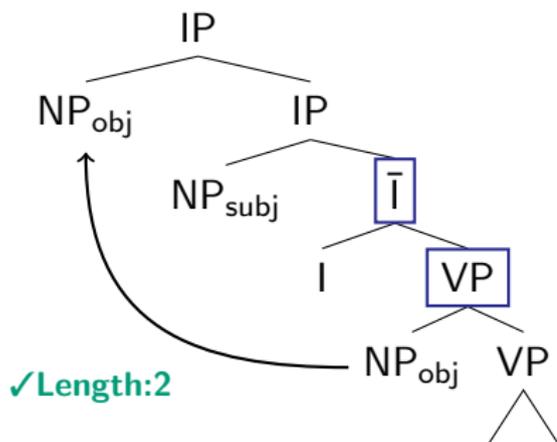
Chain links must be **as short as possible**.
Potentially predicts endless adjunction to the same XP.

> ⇒ Chain links must "have some length". (Bošković 1997:27)

Chain links must have some length

Minimal chain links vs. feature-driven movement

If we discard:

- ▶ a representational definition of movement chains
- ▶ Minimize Chain Link

There is no need for a lower bound on movement.

Superfluous adjunction is independently ruled out by Last Resort:

> ### Last Resort (Abels 2012:105)
>
> A constituent α may only be merged–internally or externally–
> if that leads to the immediate sharing of a feature.
>
> (Chomsky 1993; Svenonius 1994; Lasnik 1995; Bošković and Takahashi 1998; Pesetsky and Torrego 2006,
>
> a.o.)

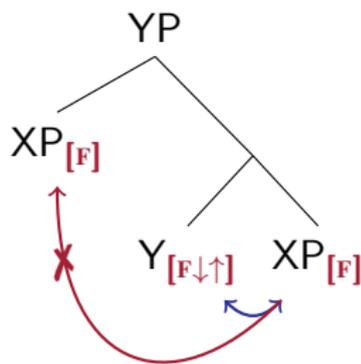# 'Too local' movement = impossible feature checking

Abels (2003, 2012): antilocality is a by-product of Last Resort

- ▶ Probe-Goal features are checked by c-command.
- ▶ Last Resort: movement must result in feature checking.

Consequence: No phrase-internal movement
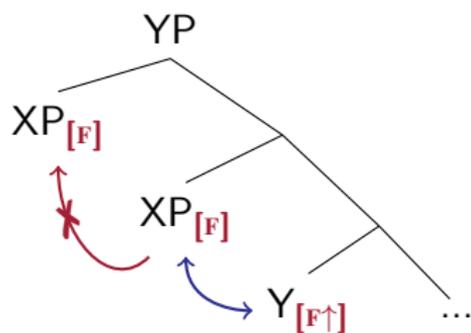
*Phrase-internal Spec to Spec   ***Phrase-internal comp to Spec**

Abels (2003, 2012):
Probe features are checked by c-command.

Heck and Müller (2007); Müller (2010), etc:
Some Probe features must be checked by Merge.
$$\approx \text{EPP / strong features} \text{ (Chomsky 1982, 1995)}$$

Probe features are hierarchically ordered
$$= \text{must be checked one at a time.}$$

(Georgi and Müller 2010; Müller 2010; Georgi 2014, 2017; Martinović 2015, 2023; Ershova 2019, 2024)

Redefined features change antilocality constraints

- Some Probe features must be checked by Merge.
- Features are hierarchically ordered
  $=$ must be checked one at a time.

$\Rightarrow$ Complement of X cannot check a Merge feature on X in situ
  $\Rightarrow$ complement to Spec movement is possible.

$\Rightarrow$ Phrase-internal movement can be limited by the search
  domain of the Probe (e.g. m-command vs. c-command).
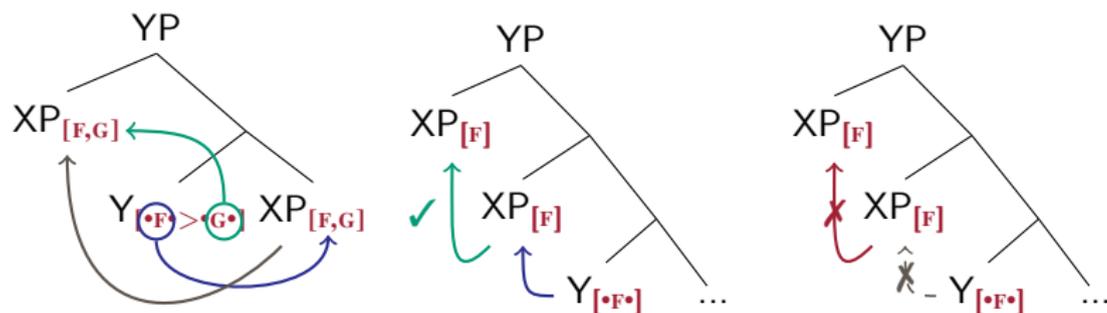
The empirical question: how are features constrained?

- ▶ Abels (2003, 2012): complement to Spec movement is impossible because of the **Stranding Generalization**

A complement of a phase head cannot move, stranding the phase head.

YP ⟵ phase

Y XP
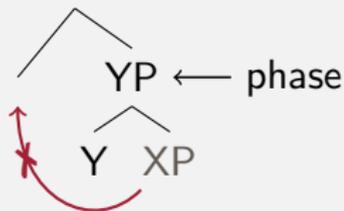
- ▶ Stranding of functional heads C, v and D is difficult to test.
- ▶ Counterevidence from P-stranding languages
    – requires positing additional (unpronounced) structure.
- ▶ Bošković (2015):
  counterevidence from AP and NP phases in Serbo-Croatian.

  (But see Arregi and Murphy 2022)

Merge features allow complement to Spec movement.
Perhaps erroneously? The jury is still out.

Question: Should Merge features allow phrase-internal Spec to Spec movement?

Answer: Depends on your theory of successive-cyclic movement.

Successive-cyclic movement is triggered by edge features*.

(Chomsky 2000, 2001, 2008; Heck and Müller 2003; Müller 2010, 2011; Georgi 2014, 2017, a.o.)

*Not contentful Ā features (cf. McCloskey 2002; Abels 2012; van Urk 2015, 2020).

> ### Ershova (2024):
>
> •EF• is inserted on phase head α iff there is an unchecked movement feature in the **c-command domain** of α.

⇒ Successive-cyclic movement has a lower bound:

▶ Specifiers cannot remerge phrase-internally.

⇒ no superfluous remerging

▶ No successive-cyclic movement out of specifier.

⇒ phase edges are opaque

Feature-based 'antilocality'

- Lower limits on movement are epiphenomenal to how Probe features are defined, **not** a stipulation of the grammar.

- Merge features + constraints on edge feature insertion rule out superfluous specifier remerging.

- If Probes are defined by prosodic requirements, linear adjacency between Probe and Goal may rule out some types of local movement (Richards 2016)

- But they **do not** rule out very local movement across the board.

*"Movement of A targeting B **must cross** a projection distinct from B (where unlabeled projections are not distinct from labeled projections)."* (Bošković 2015, 2016)

*"Movement of a phrase from the Specifier of XP **must cross** a maximal projection other than XP."* (Erlewine 2016, 2020)
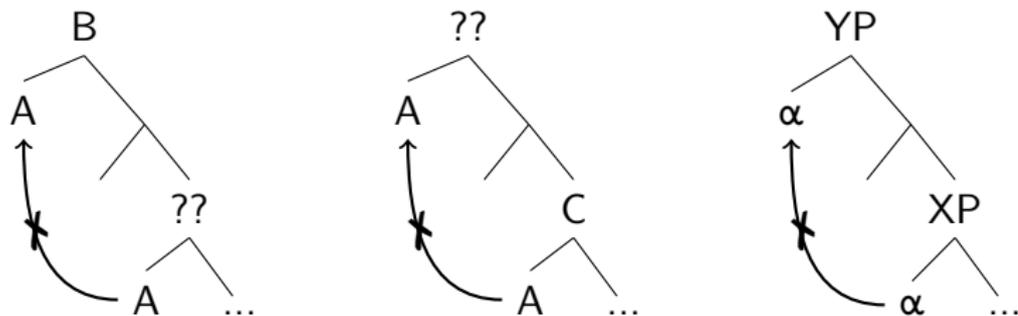
Spec-to-Spec Anti-locality: some things to note

The two definitions are not equivalent:

- ▶ Erlewine (2016, 2020) rules out all and only Spec-to-Spec movement.

- ▶ Bošković (2015, 2016) allows some Spec-to-Spec movement and rules out some long-distance movement.

Spec-to-Spec Anti-locality is **not predicted** by feature-driven movement*　　　⇒ must be stipulated as a primitive constraint.

*Some Spec-to-Spec movement is ruled out in Contiguity Theory.

(Richards 2016, to appear)

> Should Spec-to-Spec Anti-locality be a primitive grammatical constraint?

Is Spec-to-Spec Anti-locality a primitive constraint?

Our response: No.

Spec-to-Spec Anti-locality is **empirically inadequate**:

Spec-to-Spec movement is possible.
(Possessor relativization in West Circassian.)

Spec-to-Spec Anti-locality is **empirically unnecessary**:

▶ Empirical motivation: constraints on subject extraction

(e.g. Bošković 2015, 2016; Erlewine 2016, 2020; Brillman and Hirsch 2016; Brillman 2017; Amaechi and

Georgi 2019; Davis 2020, 2023; Bondarenko and Davis to appear)

▶ These constraints have other, equally adequate explanations.

- **A defense of very local movement:**
  possessor relativization in West Circassian.

- **Theoretical groundwork of antilocality:**
  a brief history and critique.

- **Antilocal phenomena explained in other ways:**
  constraints on subject extraction.

Subject Ā-movement motivates Spec-to-Spec Anti-locality

Bošković (2016); Erlewine (2020): antilocality explains

▶ complementizer-trace effects

(1) Who did he say ***(that)** hid the rutabaga?
(2) What did he say **(that)** Laura hid?

▶ no do-support with short subject questions

(3) Who bought the car? / *Who did buy the car?
(4) What did John buy? / *What John bought?

▶ anti-agreement, ban on subject resumptives, etc.

The antilocality explanation
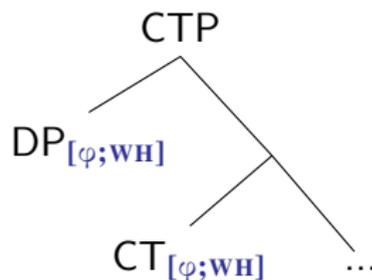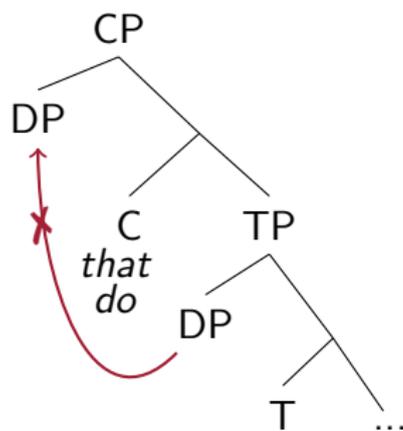
Movement from Spec,TP to Spec,CP is too local
$$\Rightarrow \text{Subjects cannot move to Spec,CP.}$$

Repair: no separate CP layer or subjects aren't in Spec,TP

E.g. subject wh-questions involve 'bundling' of C+T (Erlewine 2020)

There's something fishy about subject movement

The empirical generalization: Subject Ā-movement in the left periphery displays special properties.

Does this warrant a generalized antilocality constraint?

Our conjecture: No.

▶ The absence of structure between T and C is difficult, if not impossible, to diagnose.

See e.g. proposals for multiple CP layers / expanded left periphery.

(Iatridou 1991; Iatridou and Kroch 1992; Rizzi 1997; Grishin 2023, a.o.)

▶ More likely explanation is based on properties of the left periphery and interactions between C and T.

Alternative approaches to subject extraction

▶ Martinović (2015, 2023):
CT originates as single head and splits when necessary.

▶ Pesetsky (2023):
C and T agreeing with the same DP leads to dissimilation.

▶ Other possibilities: prosody and/or morphology (Appendix)

Head splitting instead of head bundling

Martinović (2015, 2023):

▶ Composite CI hosts [EPP] for subject and (optionally) [WH]

▶ [WH] probe on CI reprojects when unchecked.

▶ Explains clause type distribution in Wolof.

▶ May also explain effects of subject Ā-extraction:

> CI does not reproject if subject checks [WH] feature in situ.

Composite CI can explain subject Ā-extraction

Object wh-movement:
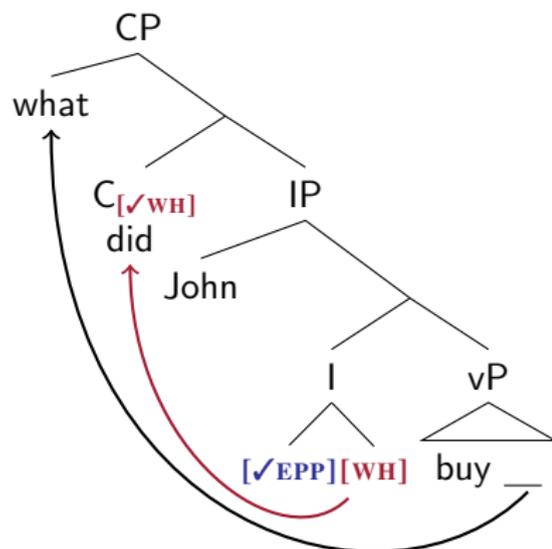
Subject wh-movement:
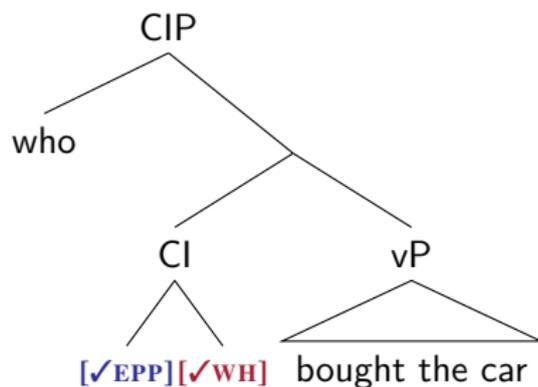
Subject never moves from Spec,IP to Spec,CP because of properties of CI. ⟹ **No antilocality constraint required.**

- Generalized Spec-to-Spec Antilocality is not predicted by properties of probes or Agree

  $\Rightarrow$ must be stated as a primitive constraint

- Evidence for Spec-to-Spec Antilocality:
  constraints on subject Ā-movement.

- Can be plausibly analyzed without appealing to length of movement path.

  $\Rightarrow$ Same empirical coverage without stipulating a lower bound on movement.

  Spec-to-Spec Antilocality is empirically unnecessary.

Generalized antilocality constraints are **theoretically unmotivated** and **empirically implausible**.

▶ Feature-driven Merge rules out superfluous movement steps.
▶ 'Antilocal' phenomena have alternative explanations.

There is no need to stipulate a lower bound on movement dependencies.

Possessor relativization in West Circassian is derived with **very local movement**, violating Spec-to-Spec Antilocality.

Evidence for locality: allomorphy between Poss and D

▶ Poss triggers allomorphy on D despite not being linearly adjacent.

▶ Allomorphy is disrupted by additional structure between Poss and D (NumP).

The significance of morphological evidence

- ▶ Antilocality is sensitive to **minor structural changes**: The addition of **a single projection** can make very local movement 'long enough'. (Baier 2017; Deal 2019; Erlewine 2020; Richards to appear)

- ▶ There is no broadly accepted heuristic for establishing the presence/absence of unpronounced structure.

- ▶ This makes testing antilocality predictions very difficult.

- ▶ Local allomorphy effects can be a testable diagnostic.

- ▶ For example, if movement from Spec,XP to Spec,YP disrupts allomorphy triggered by X on Y, additional structure must have been added!

Thank you!

- West Circassian consultants: Svetlana K. Alishaeva, Saida Gisheva, Susana K. Khatkova, and Zarema Meretukova
- Participants of 24.956 (Fall 2023) at MIT.
- Audience at MIT LingLunch.

References

Abels, Klaus. 2003. Successive cyclicity, anti-locality, and adposition stranding. PhD diss, University of Connecticut.

Abels, Klaus. 2012. *Phases: An essay on cyclicity in syntax*. De Gruyter.

Amaechi, Mary, and Doreen Georgi. 2019. Quirks of subject (non-)extraction in Igbo. *Glossa: a journal of general linguistics* 4 (1): 1–36. doi:10.5334/gjgl.607.

Arkadiev, Peter M., and Yakov G. Testelets. 2019. Differential nominal marking in Circassian. *Studies in Language* 43 (3): 715–751.

Arregi, Karlos, and Andrew Murphy. 2022. Argument-internal parasitic gaps. https://ling.auf.net/lingbuzz/006856.

Bagirokova, Irina, Yury Lander, and Paul Phelan. 2022. Number in West Circassian. In *Number in the world's languages: A comparative handbook*, eds. Paolo Acquaviva and Phelan Paul, 261–304. De Gruyter Mouton.

Baier, Nico. 2017. Antilocality and antiagreement. *Linguistic Inquiry* 48 (2): 367–377.

Baier, Nico. 2018. Anti-agreement. PhD diss, UC Berkeley.

Boeckx, Cedric. 2007. Some notes on bounding. *Language Research* 43 (1): 35–52.

Boeckx, Cedric. 2008. *Understanding minimalist syntax*. Blackwell.

Bondarenko, Tatiana, and Colin Davis. to appear. Cross-clausal scrambling and subject case in Balkar: On multiple specifiers and the locality of overt and covert movement. *Syntax*.

References (cont.)

Bošković, Željko. 1994. D-structure, Theta-Criterion, and movement into theta-positions. *Linguistic Analysis* 24 (3–4): 247–286.

Bošković, Željko. 1997. *The syntax of nonfinite complementation: An economy approach*. MIT Press.

Bošković, Željko. 2013. Phases beyond clauses. In *Nominal constructions in slavic and beyond*, eds. L. Schürcks, A. Giannakidou, U. Etxeberria, and P. Kosta, 75–128. De Gruyter.

Bošković, Željko. 2015. From the Complex NP Constraint to everything: On deep extractions across categories. *The Linguistic Review* 32 (4): 603–669.

Bošković, Željko. 2016. On the timing of labeling: Deducing comp-trace effects, the Subject Condition, the Adjunct Condition, and tucking in from labeling. *The Linguistic Review* 33 (1): 17–66.

Bošković, Željko, and Daiko Takahashi. 1998. Scrambling and Last Resort. *Linguistic Inquiry* 29 (3): 347–366.

Branan, Kenyon. 2022. Locality and antilocality: The logic of conflicting requirements. *Linguistic Inquiry* 54 (1): 1–38.

Bresnan, Joan. 1977. Variables in the theory of transformations. In *Formal syntax*, eds. Peter Culicover, Thomas Wasow, and Adrien Akmajian, 157–196. Academic Press.

References (cont.)

Brillman, Ruth. 2017. Tough constructions in the context of English infinitives. PhD diss, MIT.

Brillman, Ruth, and Aron Hirsch. 2016. An anti-locality account of English subject/non-subject asymmetries. In *Proceedings of CLS 50*. CLS.

Caponigro, Ivano, and Maria Polinsky. 2011. Relative embeddings: A Circassian puzzle for the syntax/semantics interface. *NLLT* 29(1): 71–122.

Chomsky, Noam. 1982. *Some concepts and consequences of the theory of government and binding*. MIT Press.

Chomsky, Noam. 1986. *Barriers*. MIT Press.

Chomsky, Noam. 1993. A minimalist program for linguistic theory. In *The view from Building 20: Essays in honor of Sylvain Bromberger*, eds. Kenneth Hale and Samuel J. Keyser, 1–52. The MIT Press.

Chomsky, Noam. 1995. *The Minimalist Program*. MIT Press.

Chomsky, Noam. 2000. Minimalist inquiries: the framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, eds. Roger Martin, David Michaels, and Juan Uriagereka, 89–155. MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz. MIT Press.

Chomsky, Noam. 2008. On phases. In *Foundational issues in linguistic theory*, eds. Robert Freidin, Carlos P. Otero, and Maria Luisa Zubizarreta, 133–166. MIT Press.

Chomsky, Noam, and Howard Lasnik. 1993. The theory of principles and parameters. In *Syntax: An international handbook of contemporary research*, eds. Joachim Jacobs, Arnim von Stechow, Wolfgang Sternefeld, and Theo Vennemann, 506–569. Mouton de Gruyter.

Davis, Colin. 2023. The restricted interaction of parasitic gaps and subjects is explained by anti-locality. Ms. `https://ling.auf.net/lingbuzz/006940`.

Davis, Colin Pierce Bryon. 2020. The linear limitations of syntactic derivations. PhD diss, MIT.

Deal, Amy Rose. 2019. Raising to ergative: Remarks on applicatives of unaccusatives. *Linguistic Inquiry* 50 (2): 388–415.

Erlewine, Michael Yoshitaka. 2016. Anti-locality and optimality in Kaqchikel agent focus. *Natural Language and Linguistic Theory* 34: 429–479.

Erlewine, Michael Yoshitaka. 2020. Anti-locality and subject extraction. *Glossa: a journal of general linguistics* 5 (1): 84.

Ershova, Ksenia. 2019. Syntactic ergativity in West Circassian. PhD diss, University of Chicago.

References (cont.)

Ershova, Ksenia. 2021. Diagnosing clause structure in a polysynthetic language: Wh-agreement and parasitic gaps in West Circassian. *Linguistic Inquiry* 52 (1): 1–38. doi:10.1162/ling$_{a0}$0371.

Ershova, Ksenia. 2023. Syntactic ergativity and the theory of subjecthood: Evidence from anaphor binding in West Circassian. *Language* 99 (2): 193–241. doi:10.1353/lan.2023.a900086.

Ershova, Ksenia. 2024. Phasehood as defective intervention: Possessor extraction and selective DP islandhood in West Circassian. *Syntax*. doi:10.1111/synt.12275.

Fitzpatrick, Justin M. 2005. Prolific domains: On the anti-locality of movement dependencies. by Kleanthes K. Grohmann. *Journal of Germanic Linguistics* 17 (1): 39–75.

Fritzsche, Rosa. 2023. Anti-local agree and cyclicity. In *Cyclicity*, eds. Mariia Privizentseva, Felicitas Andermann, and Gereon Müller. Vol. 95 of *Linguistische arbeits berichte*, 273–296. Universität Lepzig.

Georgi, Doreen. 2014. Opaque interactions of Merge and Agree: On the nature and order of elementary operations. PhD diss, Leipzig University.

Georgi, Doreen. 2017. Patterns of movement reflexes as the result of the order of Merge and Agree. *Linguistic Inquiry* 48 (4): 585–626.

Georgi, Doreen, and Gereon Müller. 2010. Noun phrase structure by reprojection. *Syntax* 13: 1–36.

References (cont.)

Grishin, Peter. 2023. Lessons from cp in Passamaquoddy and beyond. PhD diss, MIT.

Grohmann, Kleanthes. 2003. *Prolific domains: On the anti-locality of movement*. John Benjamins. doi:10.1075/la.66.

Grohmann, Kleanthes. 2011. Anti-locality: Too-close relations in grammar. In *The Oxford handbook of linguistic minimalism*, ed. Cedric Boeckx, 260–290. OUP.

Grohmann, Kleanthes, and Phoevos Panagiotidis. 2015. Demonstrative doubling in Greek. *Linguistic Analysis* 40 (1-2).

Grohmann, Kleanthes K., and Liliane Haegeman. 2003. Resuming reflexives. In *Proceedings of the 19th Scandinavian Conference of Linguistics*, eds. Anne Dahl, Kristine Bentzen, and Peter Svenonius. Vol. 31 of *Nordlyd*, 46–62.

Hagstrom, Paul. 2006. Kleanthes K. Grohmann, Prolific domains: On the anti-locality of movement dependencies. *Journal of Comparative Germanic Linguistics* 9: 217–228.

Halpert, Claire. 2019. Raising, unphased. *Natural Language and Linguistic Theory* 37: 123–165.

Heck, Fabian, and Gereon Müller. 2003. Derivational optimization of wh-movement. *Linguistic Analysis* 33: 97–148.

Heck, Fabian, and Gereon Müller. 2007. Extremely local optimization. In *Proceedings of WECOL34*, eds. Erin Bainbridge and Brian Agbayani, 170–182. California State University, Fresno.

References (cont.)

Hicks, Glyn. 2009. *The derivation of anaphoric relations*. John Benjamins.

Hiraiwa, Ken. 2001. Multiple Agree and the Defective Intervention Constraint in Japanese. In *The proceedings of HUMIT 2000*, eds. Ora Matushansky, Albert Costa, Javier Martin-Gonzalez, Lance Nathan, and Adam Szczegielniak, 67–80. MITWPL.

Iatridou, Sabine. 1991. Topics in conditionals. PhD diss, MIT.

Iatridou, Sabine, and Anthony Kroch. 1992. The licensing of CP-recursion and its relevance to the Germanic verb-second phenomenon. *Working Papers in Scandinavian Syntax* 50: 1–24.

Kandybowicz, Jason. 2006. Comp-trace effects explained away. In *Proceedings of the 25th West Coast Conference in Formal Linguistics*, eds. Donald Baumer, David Montero, and Michael Scanlon. Cascadilla Proceedings Project.

Kandybowicz, Jason. 2007. *The grammar of repetition: Nupe grammar at the syntax-phonology interface*. Benjamins.

Kharytonava, Volha. 2011. Noms composés en turc et morphème -(s)I. PhD Thesis, The University of Western Ontario.

Korotkova, Natalia, and Yury Lander. 2010. Deriving affix ordering in polysynthesis: Evidence from Adyghe. *Morphology* 20: 299–319.

Kumakhov, M. A. 1971. *Slovoizmenenie adygskix jazykov [Inflection in Circassian languages]*. Nauka.

Lander, Yury. 2012. Reljativizacija v polisintetičeskom jazyke: adygejskie otnositel'nye konstrukcii v tipologičeskoj perspektive [Relativization in a polysynthetic language: Adyghe relative clauses in a typological perspective]. PhD diss, Russian State University for the Humanities.

Lasnik, Howard. 1995. Case and expletives revisite: On Greed and other human failings. *Linguistic Inquiry* 26: 615–633.

Lyutikova, Ekaterina, and Asya Pereltsvaig. 2015. The Tatar DP. *Canadian Journal of Linguistics/Revue canadienne de linguistique 60(3): 289–325*.

Martínez Vera, Gabriel. 2019. Phases, labeling, antilocality and intonational phrases: recomplementation in Spanish. *Probus* 31 (1): 187–231.

Martinović, Martina. 2015. Feature geometry and head-splitting: Evidence from the Wolof clausal periphery. PhD diss, University of Chicago.

Martinović, Martina. 2023. Feature geometry and head splitting in the Wolof clausal periphery. *Linguistic Inquiry* 79-116.

Matushansky, Ora. 2005. Going through a phase. In *Perspectives on phases*, eds. Martha McGinnis and Norvin Richards. Vol. 49 of *MIT working papers in linguistics*.

McCloskey, Jim. 2002. Resumption, successive cyclicity, and the locality of operations. In *Derivation and explanation in the Minimalist Program*, eds. S. D. Epstein and T. D. Seely, 184–226. Blackwell.

McGinnis, Martha. 2000. Phases and the syntax of applicatives. In *NELS 31*, eds. Min-Joo Kim and Uri Strauss, 333–349. GLSA.

McGinnis, Martha. 2001. Variation in the phase structure of applicatives. *Linguistic Variation Yearbook* 1: 105–146.

Müller, Gereon. 2010. On deriving CED effects from the PIC. *Linguistic Inquiry* 41 (1): 35–82.

Müller, Gereon. 2011. *Constraints on displacement: A phase-based approach*. John Benjamins.

Newman, Elise. 2020. Facilitator effects in middles and more. *Glossa: a journal of general linguistics* 5 (1). https://doi.org/10.5334/gjgl.990.

Pesetsky, David. 2023. Dissimilation: Destroyer of Clauses (CSSL23 lecture notes).

Pesetsky, David, and Esther Torrego. 2001. T to C movement: Causes and consequences. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 355–426. MIT Press.

Pesetsky, David, and Esther Torrego. 2006. Probes, goals and syntactic categories. In *Proceedings of the 7th Annual Tokyo Conference on Psycholinguistics*, ed. Yukio Otsu. Keio University.

Petersen O'Farrill, Erika. 2023. On the nature of syntactic movement: A study in clausal opacity in Spanish. PhD diss, Stanford University.

Rackowski, Andrea, and Norvin Richards. 2005. Phase edge and extraction: A Tagalog case study. *Linguistic Inquiry* 36 (4): 565–599.

Richards, Norvin. 1998. The Principle of Minimal Compliance. *Linguistic Inquiry* 29: 599–629.

Richards, Norvin. 2016. *Contiguity theory*. MIT Press.

Richards, Norvin. to appear. Anti-locality. In *Cambridge handbook of the minimalist program*, eds. Kleanthes K. Grohmann and Evelina Leivada. Cambridge University Press.

Rizzi, Luigi. 1997. The fine structure of the left periphery. In *Elements of grammar: Handbook of generative syntax*, ed. Liliane Haegeman, 281–337. Kluwer Academic Publishers. doi:10.1007/978-94-011-5420-8_7.

Rogava, G. V., and Z. I. Keraševa. 1966. *Grammatika adygejskogo jazyka [The grammar of Adyghe]*. Krasnodarskoe knižnoe isdatelstvo.

Saito, Mamuro, and Keiko Murasugi. 1999. Subject predication within IP and DP. In *Beyond Principles and Parameters*, eds. Kyle Johnson and Ian Roberts, 167–188. Kluwer Academic Publishers.

Sato, Yosuke, and Yoshihito Dobashi. 2016. Prosodic phrasing and the that-trace effect. *Linguistic Inquiry* 47 (2): 333–349.

Schneider-Zioga, Patricia. 2007. Anti-agreement, anti-locality and minimality. *Natural Language and Linguistic Theory* 25: 403–446.

References (cont.)

Svenonius, Peter. 1994. C-selection as feature-checking. *Studia Linguistica* 48: 133–155.

Szabolcsi, Anna. 1983. The possessor that ran away from home. *The Linguistic Review* 3 (1). doi:10.1515/tlir.1983.3.1.89.

Szabolcsi, Anna. 1994. The noun phrase. In *The syntactic structure of hungarian*, eds. Ferenc Kiefer and Katalin E. Kiss. Academic Press.

Tat, Deniz. 2013. Word syntax of nominal compounds: internal and aphasiological evidence from Turkish. PhD diss, The University of Arizona.

Ticio, M. Emma. 2005. Locality and anti-locality in Spanish DPs. *Syntax* 8 (3): 229–286.

Toquero-Pérez, Luis Miguel. 2022. Revisiting extraction and subextraction patterns from arguments. *Linguistic Variation* 22 (1): 123–207.

van Urk, Coppe. 2015. A uniform syntax for phrasal movement: A case study of Dinka Bor. PhD diss, MIT.

van Urk, Coppe. 2020. Successive cyclicity and the syntax of long-distance dependencies. *Annual Review of Linguistics*.

van Urk, Coppe, and Norvin Richards. 2015. Two components of long-distance extraction: Successive cyclicity in Dinka. *Linguistic Inquiry* 46 (1): 113–155.

Zyman, Erik. 2021. Antilocality and the phase edge. *Syntax* 24 (4): 510–556.

Ótott Kovács, Eszter. 2023. Differential subject marking in Kazakh. Ph.D. Thesis, Cornell University.

Öztürk, Balkız, and Eser Erguvanlı Taylan. 2016. Possessive constructions in Turkish. *Lingua* 182: 88–108. doi:10.1016/j.lingua.2015.08.008. https://linkinghub.elsevier.com/retrieve/pii/S0024384115001709.

Definitions

► **Closest** (modified from Rackowski and Richards 2005:579; my additions in **boldface**)
A goal α is the closest one to a given probe if there is no distinct goal β such that for some **distinct** X (X a head or maximal projection), X c-commands **or dominates** α but does not c-command **or dominate** β.

► **Additional assumptions** (Rackowski and Richards 2005:582)
  ► A probe must Agree with the **closest** goal α that **can move**.
  ► A goal α **can move** if it is a phase.
  ► Once a probe P is related by Agree with a goal G, P can ignore G for the rest of the derivation (Richards 1998; Hiraiwa 2001).

(Ershova 2024)

Agree-based theory of locality domains
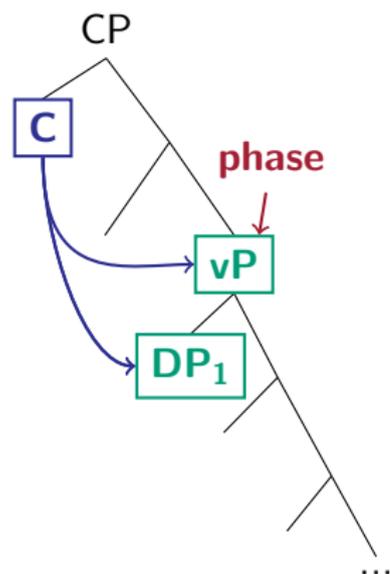
- ▶ Movement is triggered by Agree between a **probe** and the closest **goal**
- ▶ All **phases*** are potential **goals**
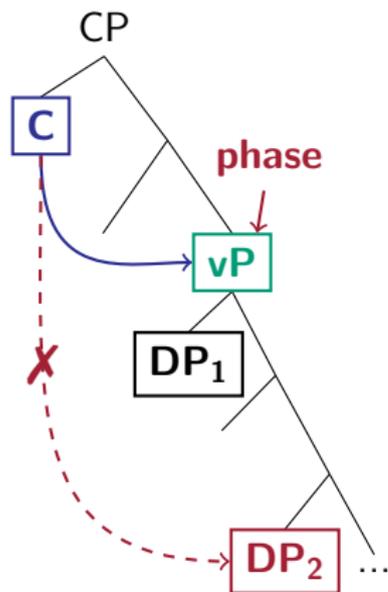- ▶ DP_1 and vP are both **closest goals**

  because there is no XP
    which c-commands or dominates DP_1,
  but does not c-command or dominate vP

> vP and Spec,vP are equidistant
> = both accessible to the probe

*dominating a matching feature

(Pesetsky and Torrego 2001; Rackowski and Richards 2005; van Urk and Richards 2015; Halpert 2019; Ershova 2024)

- Movement is triggered by Agree between a **probe** and the closest **goal**
- All **phases** are potential **goals**
- DP_2 is cannot move — vP is **closer**:

  DP_1 c-commands DP_2,
  but does not c-command vP

> Only vP and Spec,vP are accessible to the probe
> = vP is opaque for subextraction

(Pesetsky and Torrego 2001; Rackowski and Richards 2005; van Urk and Richards 2015; Halpert 2019; Ershova 2024)

Phase edges are opaque for subextraction
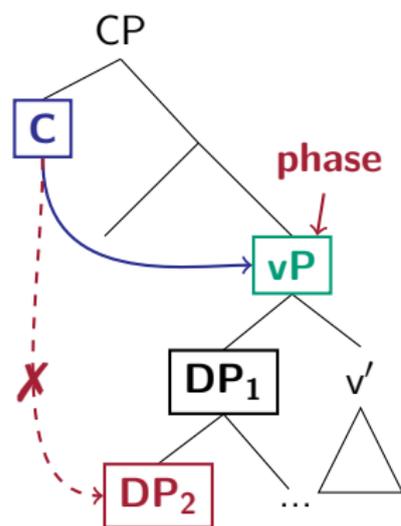
- ▶ Movement is triggered by Agree between a **probe** and the closest **goal**

- ▶ All **phases** are potential **goals**

- ▶ DP_2 is cannot move — vP is **closer**:

  DP_1 dominates DP_2,
  but does not dominate vP

> Phase edge can move,
> but is opaque for subextraction.

Ershova (2024):
Confirmed by **dynamic phasehood**: phases (and phase edges) can be 'unlocked' by Agree
$\sim$ Principle of Minimal Compliance (Richards 2016)

PossP can appear without DP

E.g. in predicative position

bzəwə-xe-r **sjə**-nəbžeʁʷə-**x**
bird-PL-ABS **1SG.POSS**-friend-**PL**

'Birds are my friends' (Adyghe Corpus)

Compare with DP: D must be overt with PL *-xe*

sjə-nəbžeʁʷə-**xe*(-m)** saʔʷəč'aʁ
1SG.POSS-friend-**PL-OBL** I went out to

'I went out to my friends' (Adyghe Corpus)

$\boxed{\Rightarrow \text{ possessive prefix} \neq \textbf{D}}$

Pesetsky (2023): If two adjacent heads agree with the same element, one of them undergoes "featural reduction"
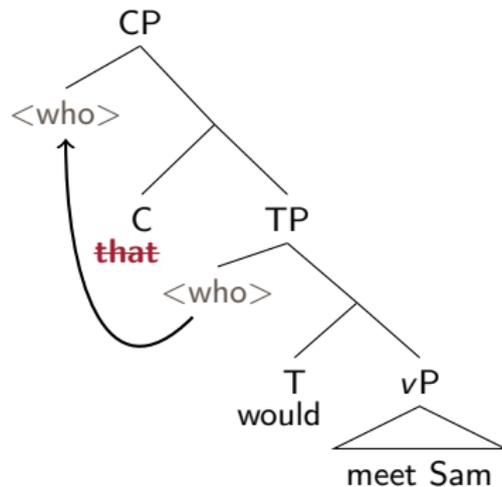
$\sim$ Kinyalolo's Constraint

Subject moves from Spec,TP to Spec,CP

$\Rightarrow$ features of T or C must be deleted.

Dissimilation can explain subject Ā-extraction

Who did John say...
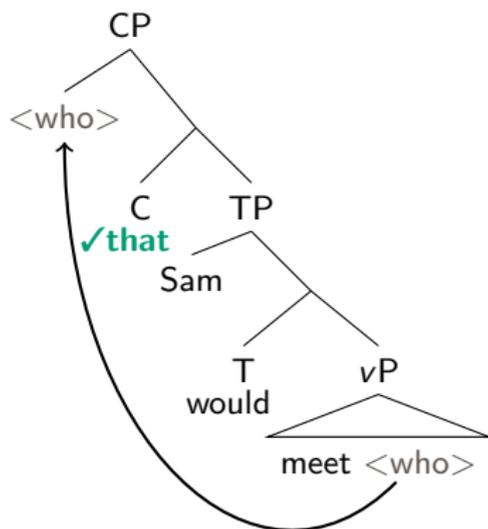
Object wh-movement
⇒ no dissimilation

Subject wh-movement
⇒ C–T dissimilation

Dissimilation triggered by T–C adjacency

⇒ **No antilocality constraint required.**

Another possibility: Multiple independent explanations

Complementizer-trace effects might be prosodic:

(Kandybowicz 2006, 2007; Sato and Dobashi 2016)

▶ Obviated by material **linearly** between complementizer and gap.

(5) Who did she say [**that tomorrow** __ would regret his words]?

(Bresnan 1977)

(6) *Who did she say [**that** __ would regret his words **tomorrow**]?

▶ Are unattested in complementizer-final languages (as far as we know).

Anti-agreement effects might be WH-agreement
$\sim$ morphological impoverishment (Baier 2018)

▶ Variability in obviation effects with additional material.
▶ Agreement doesn't always correlate with subject movement to Spec,TP (Baier 2017)