Phases in the syntax and at the interfaces

Lessons from polysynthesis

Ksenia Ershova

University College London
(k.ershova@ucl.ac.uk)

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Locality domains: the broad consensus

(Chomsky 2000, 2001, 2008; Abels 2003, 2012; Rackowski and Richards 2005; Müller 2010, 2011; Bošković 2014, 2015, 2016; van Urk 2020, among many others)

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Locality domains: the broad consensus

- Agreement and movement are constrained by **locality domains** = **phases**
- Movement must be **successive-cyclic** through the **edge** of the phase to "escape" an opaque locality domain.

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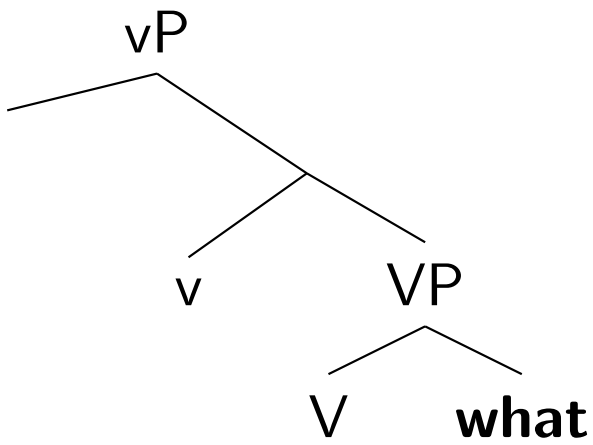

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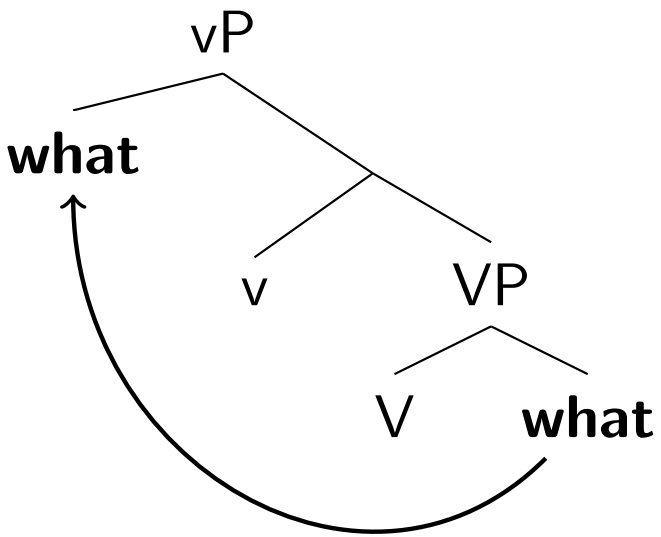

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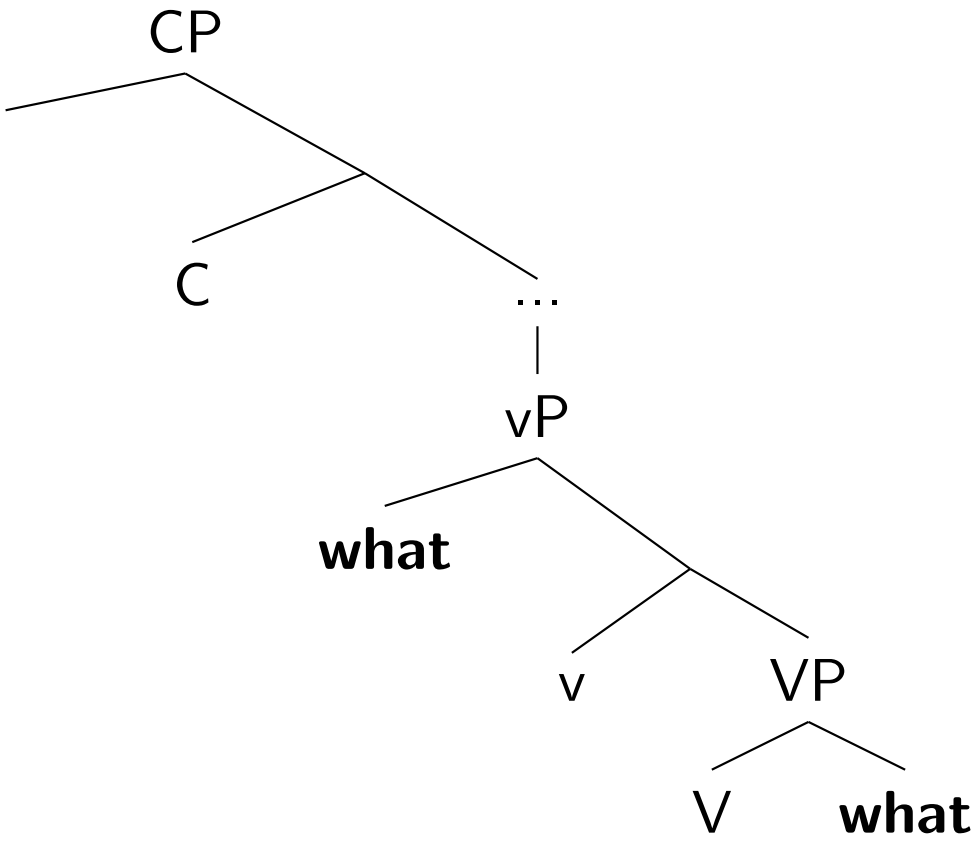

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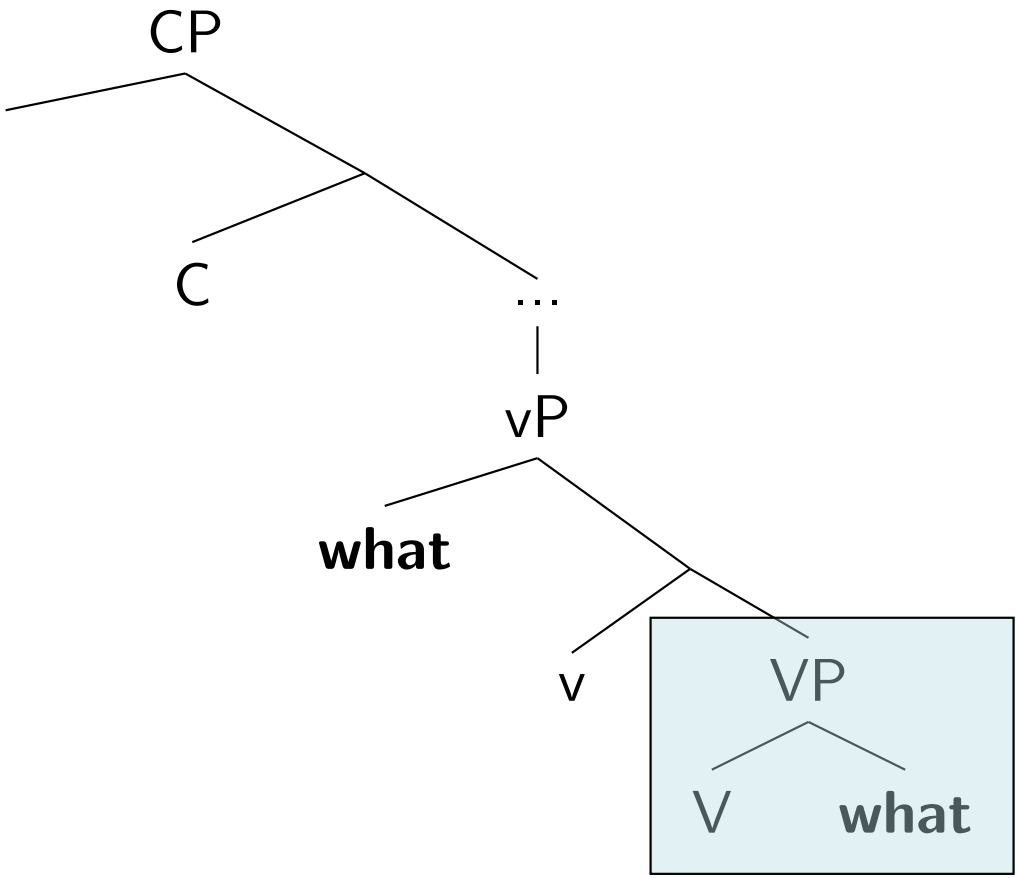

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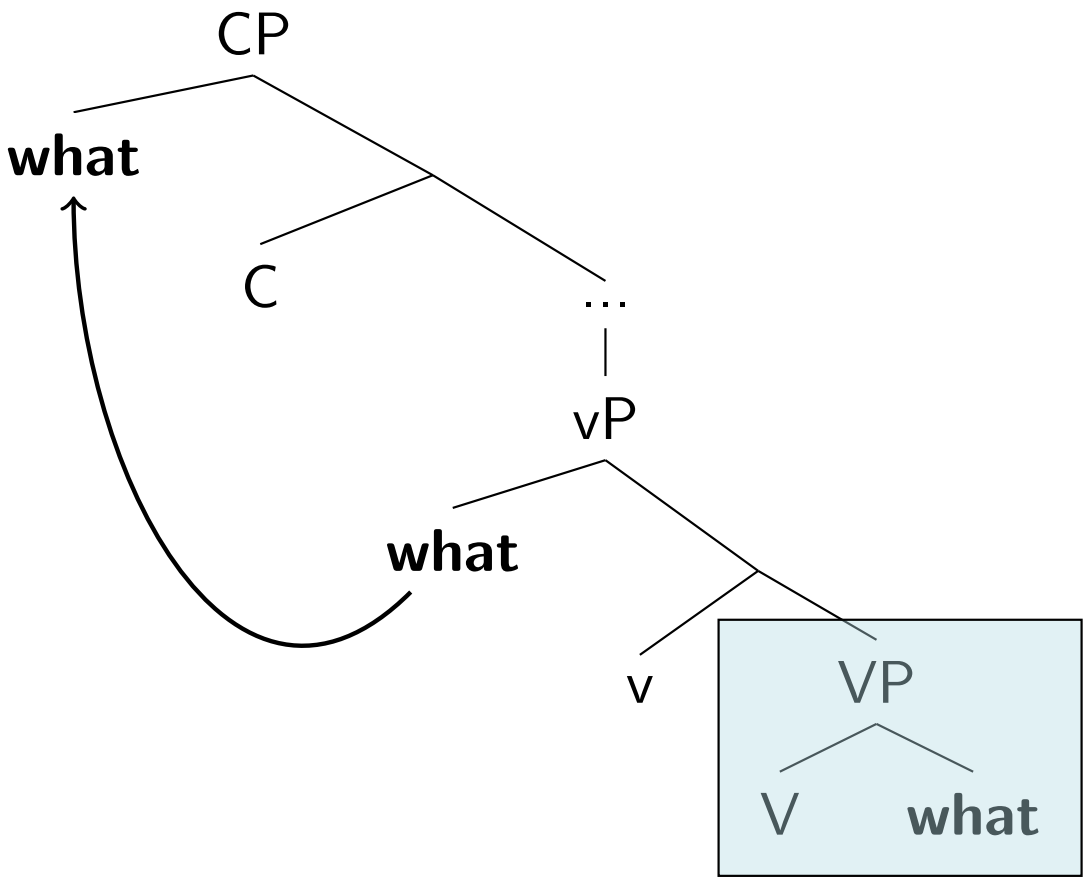

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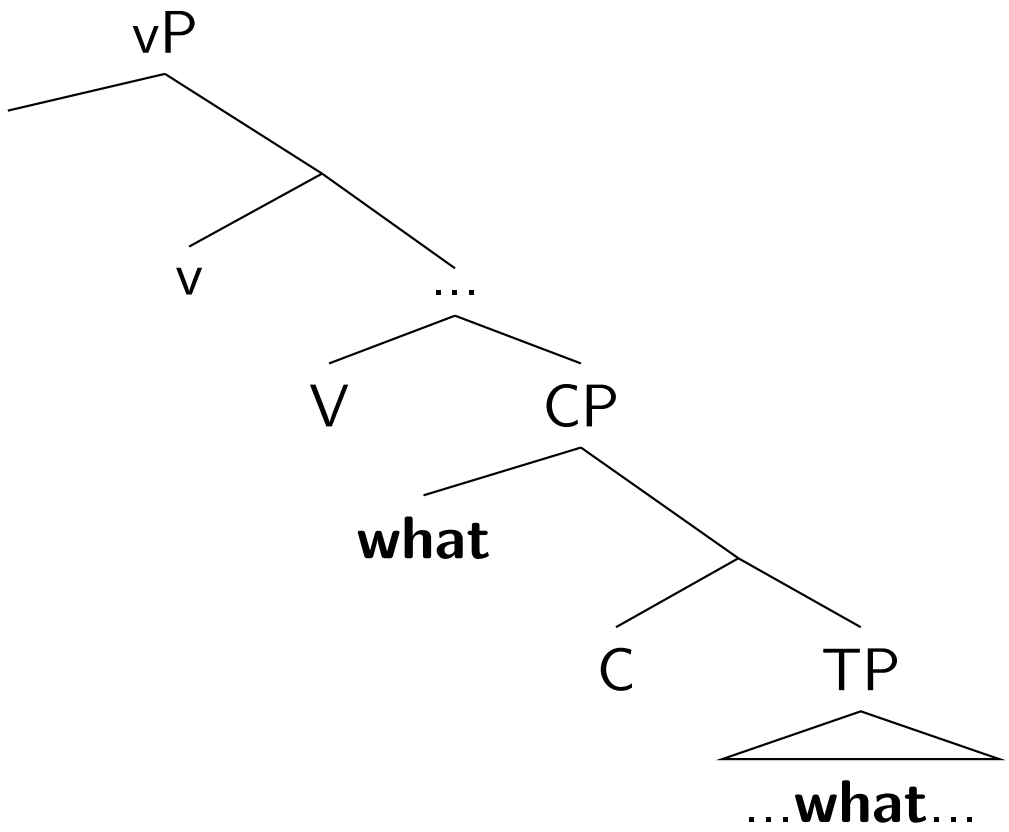

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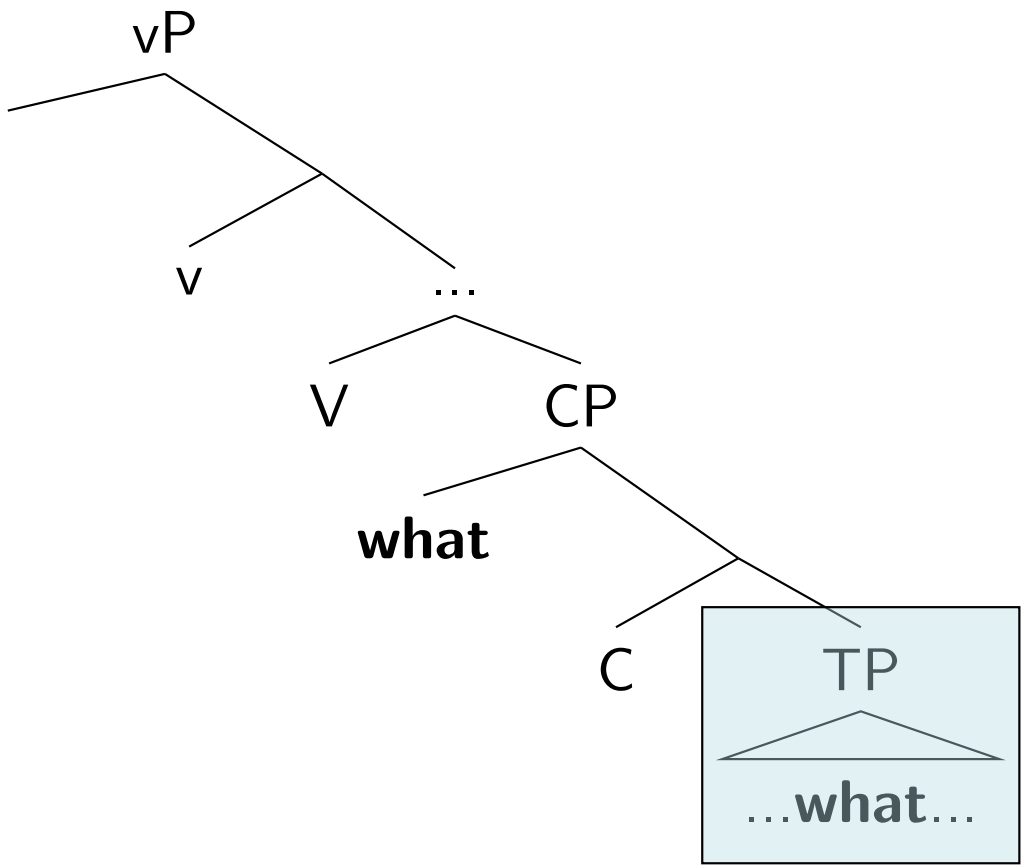

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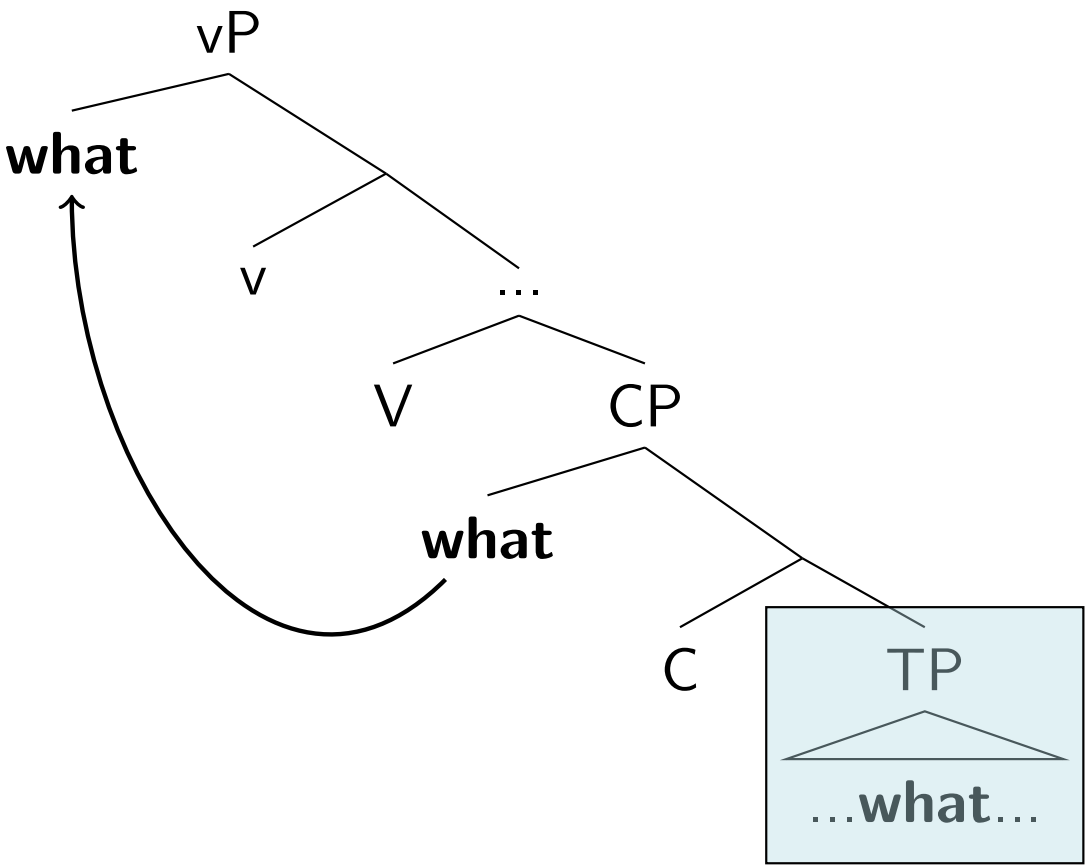

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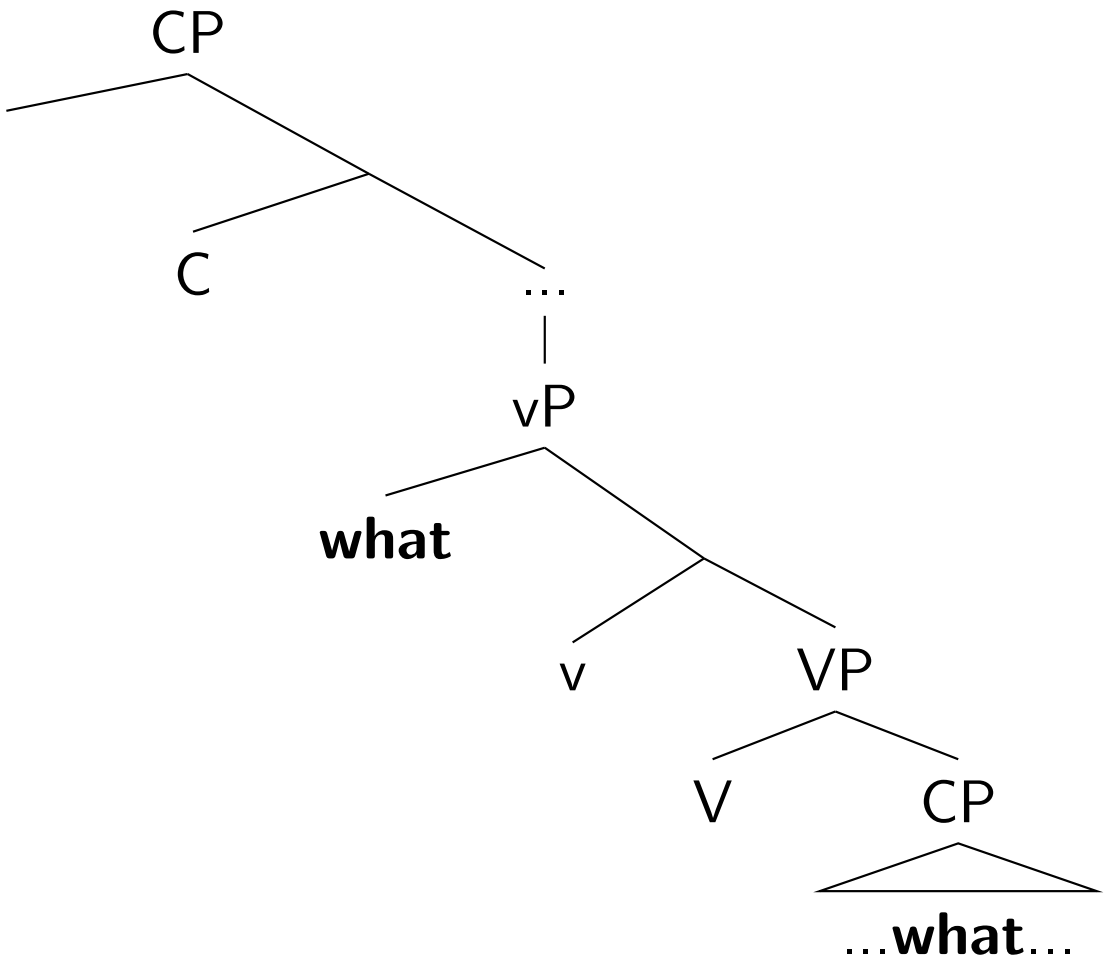

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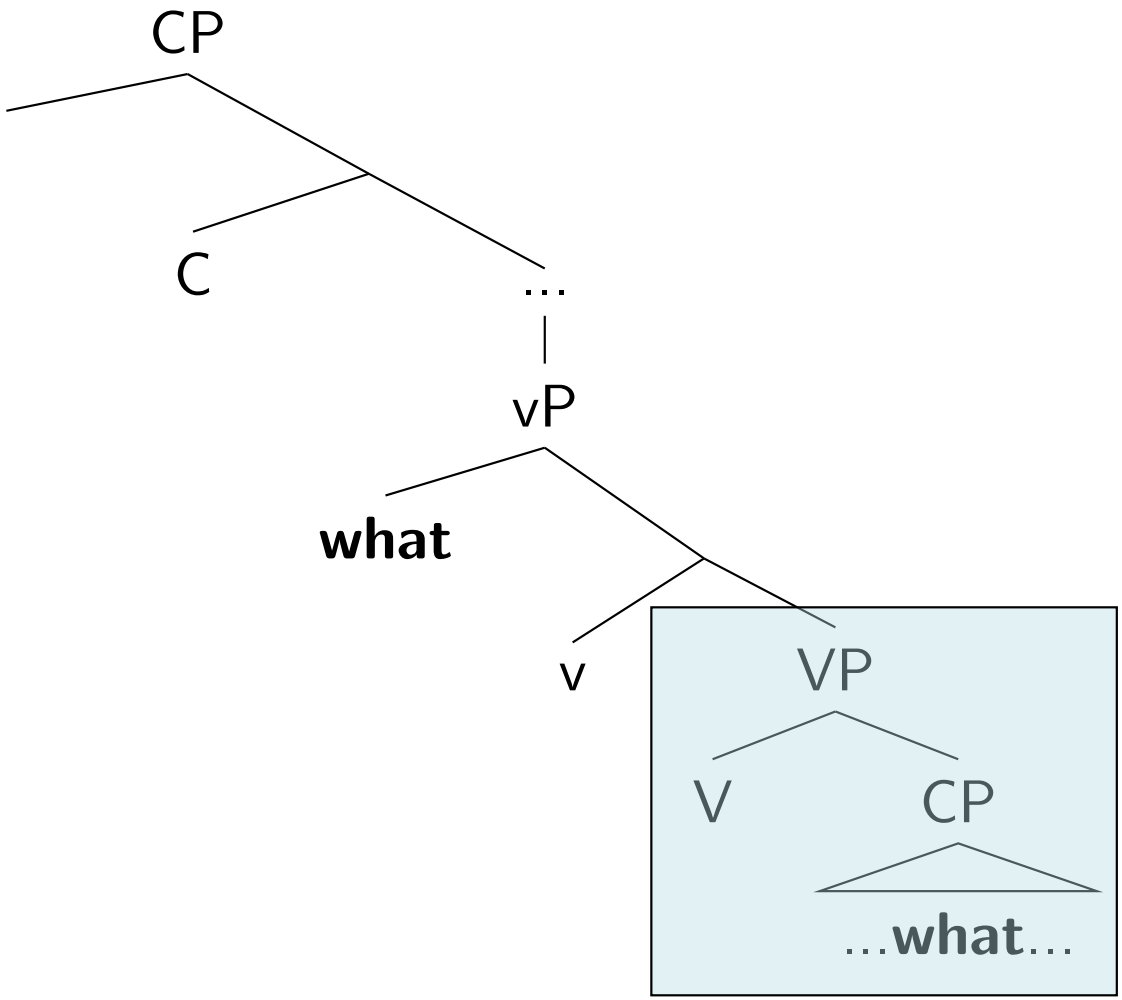

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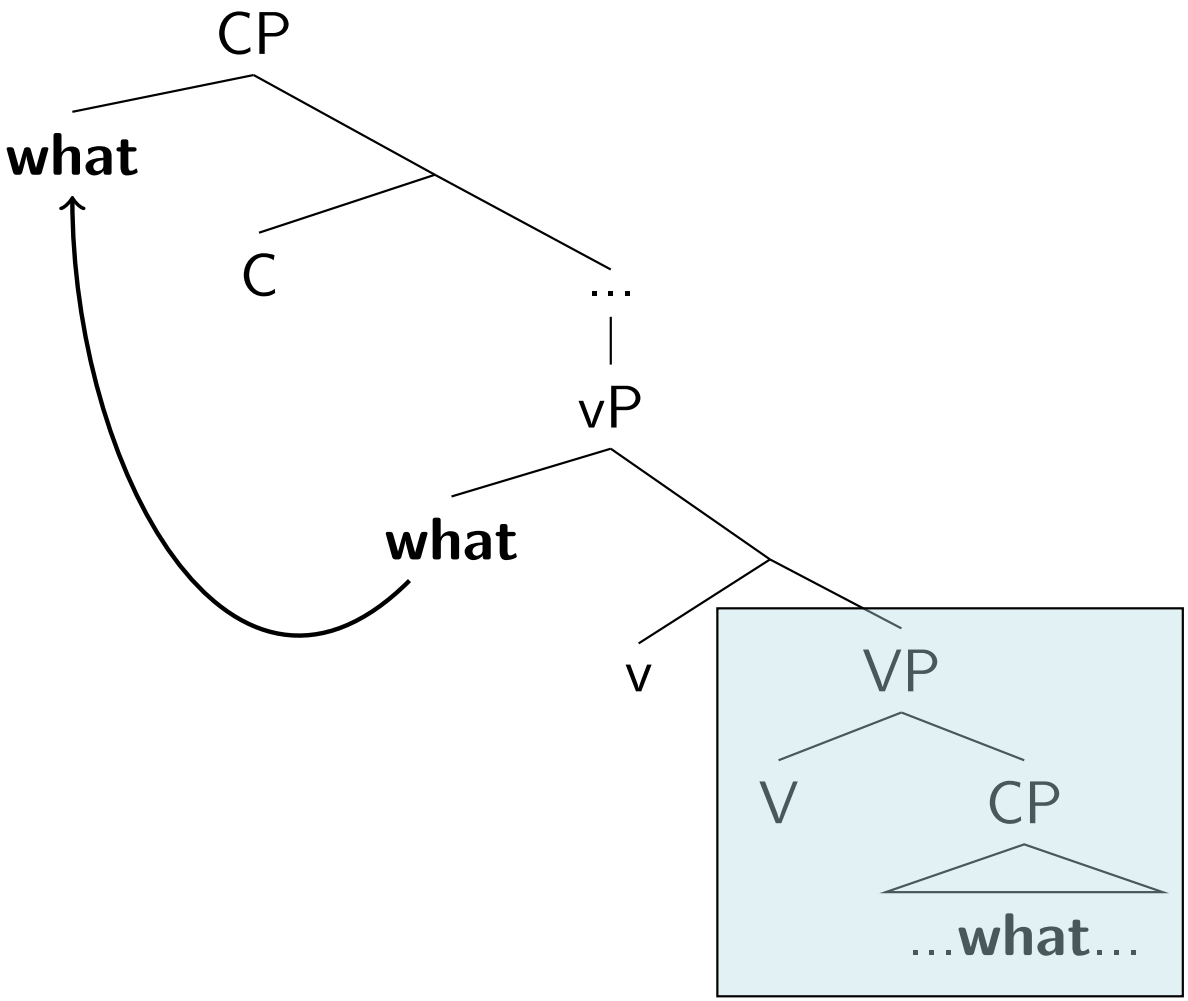

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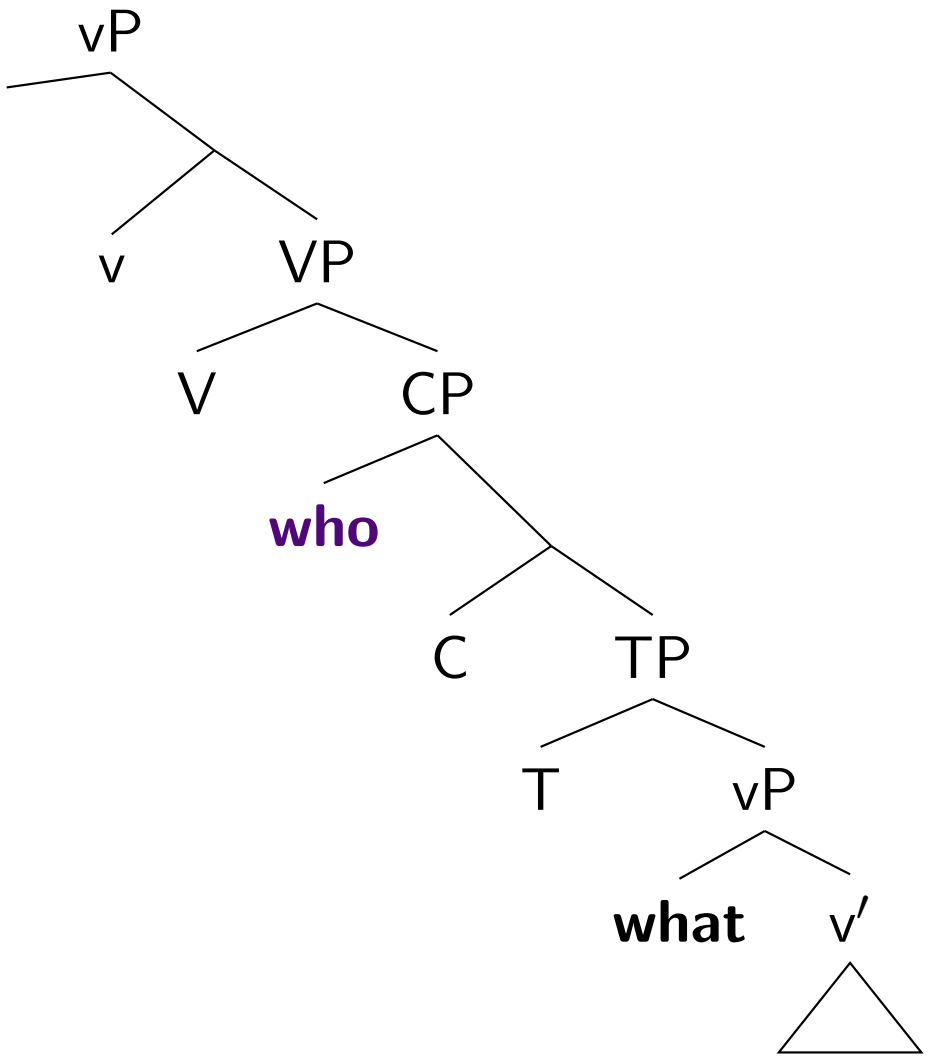

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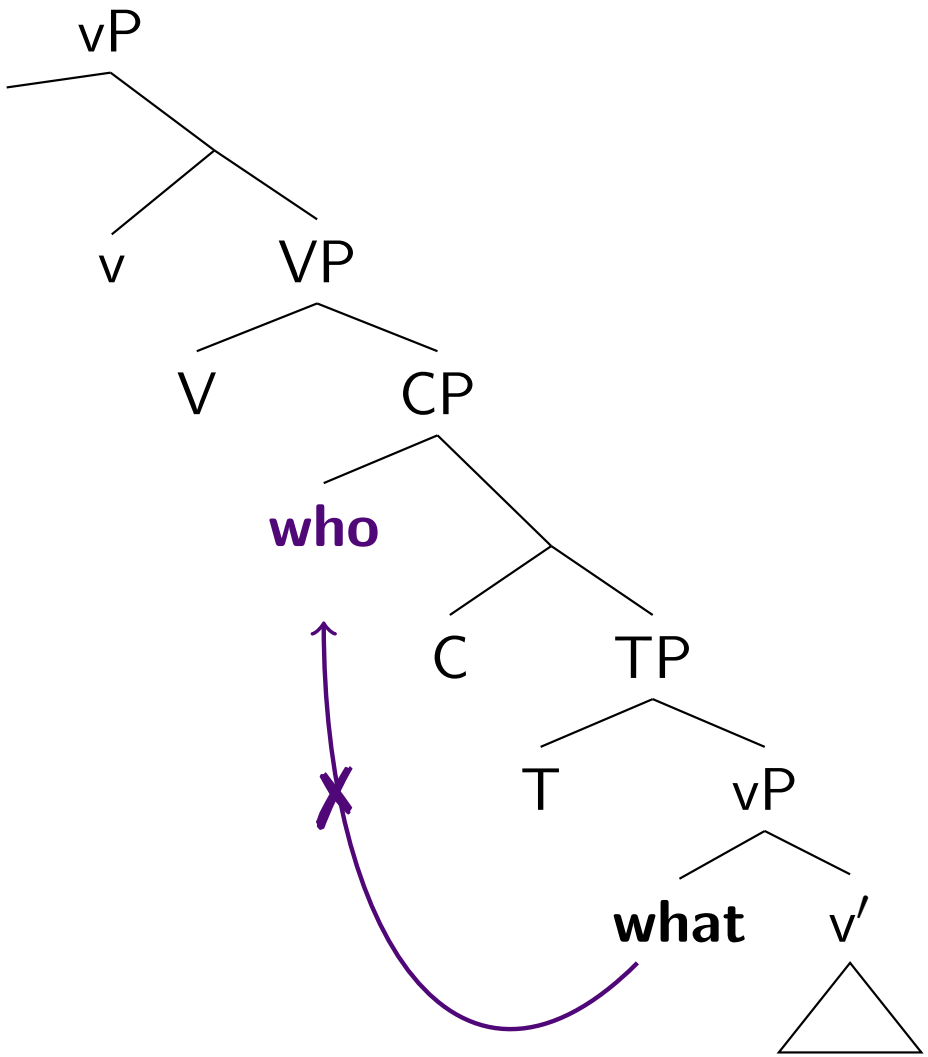

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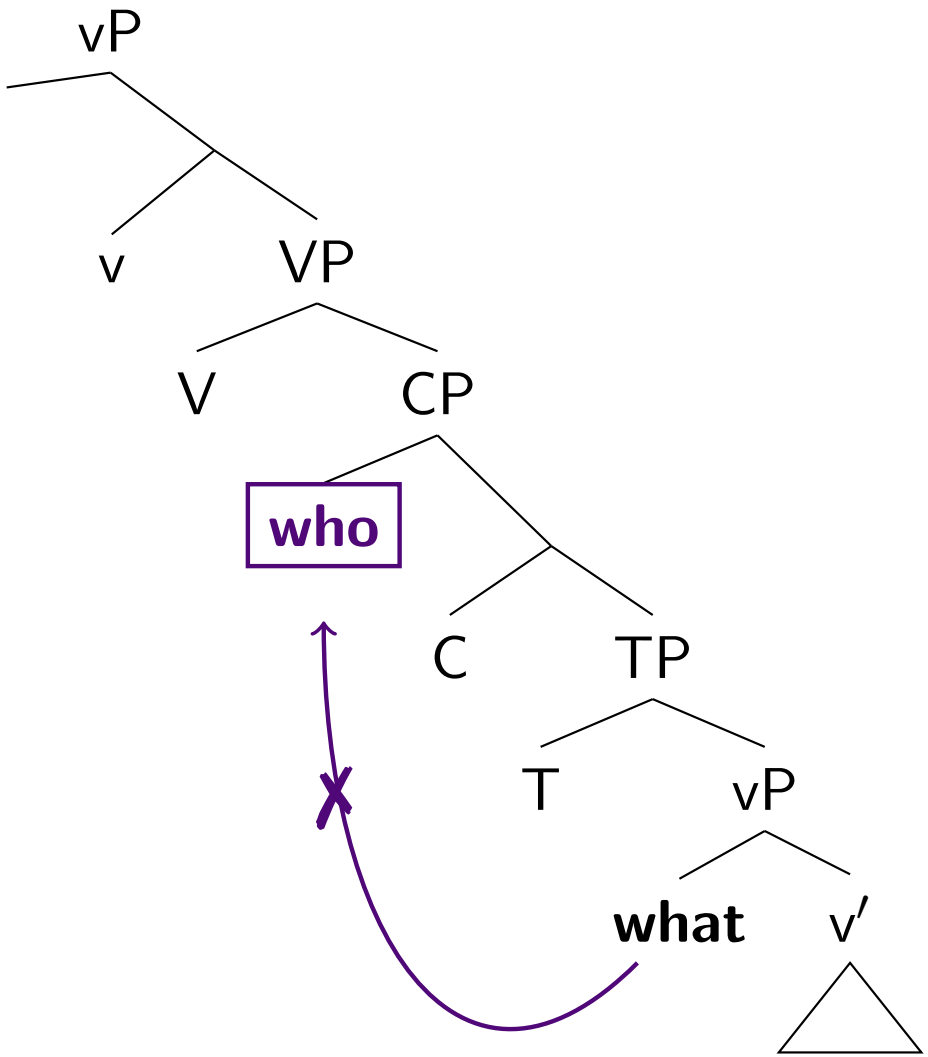

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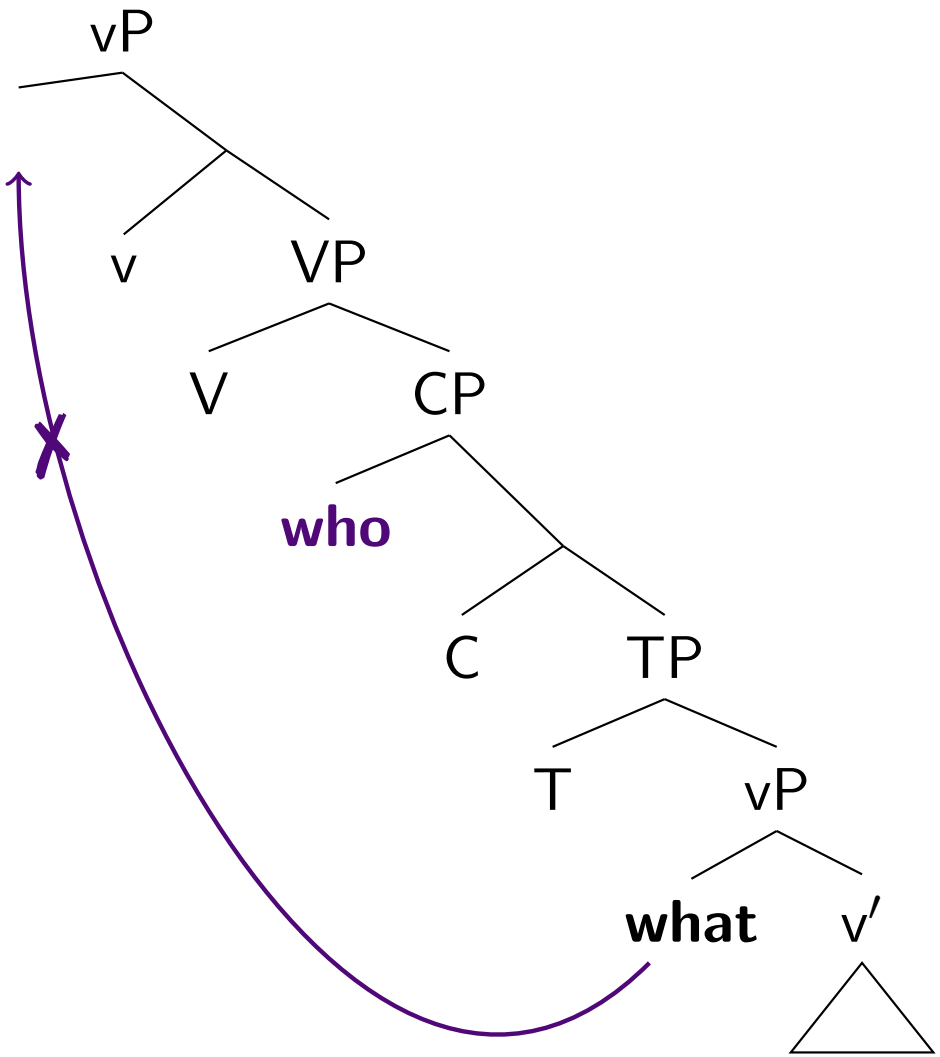

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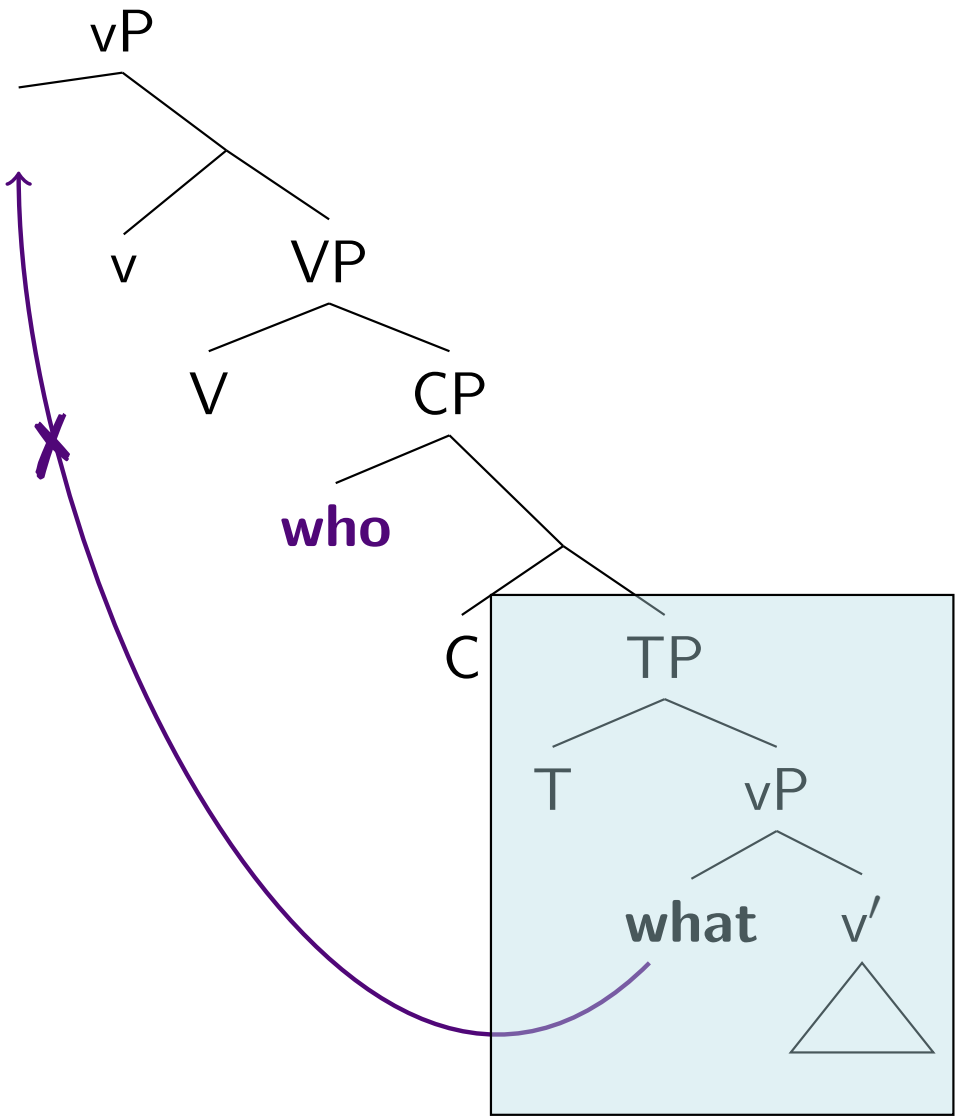

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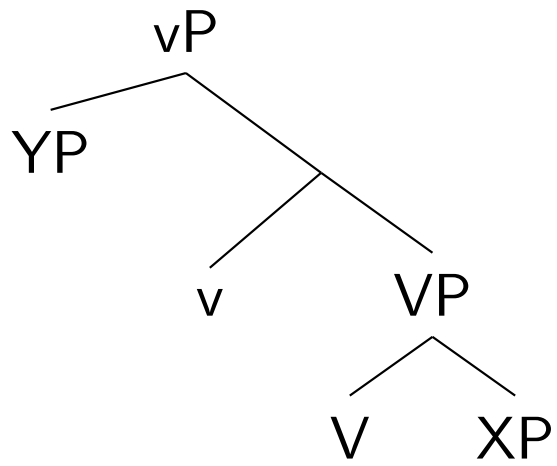

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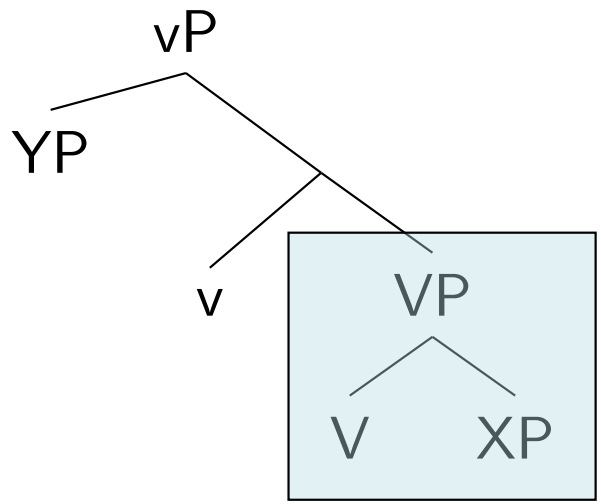

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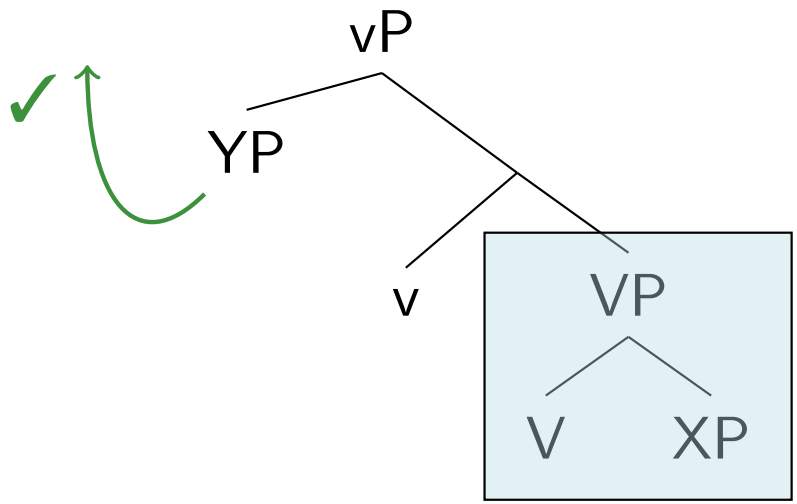

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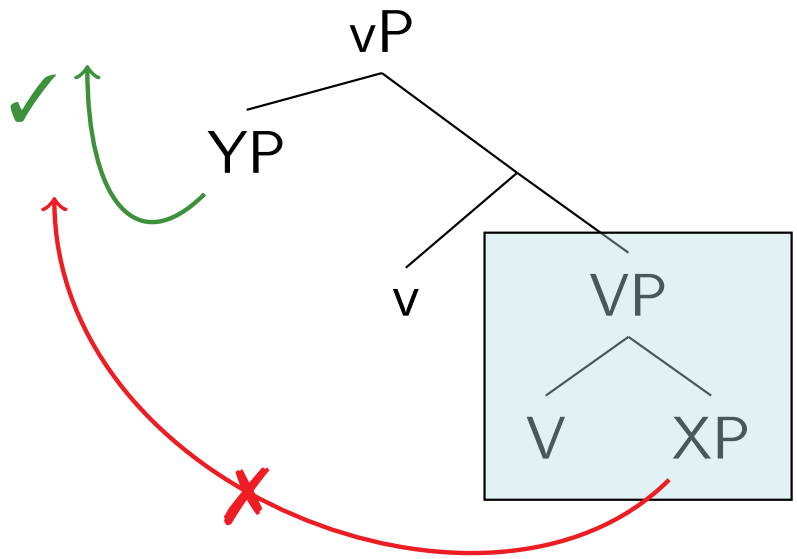

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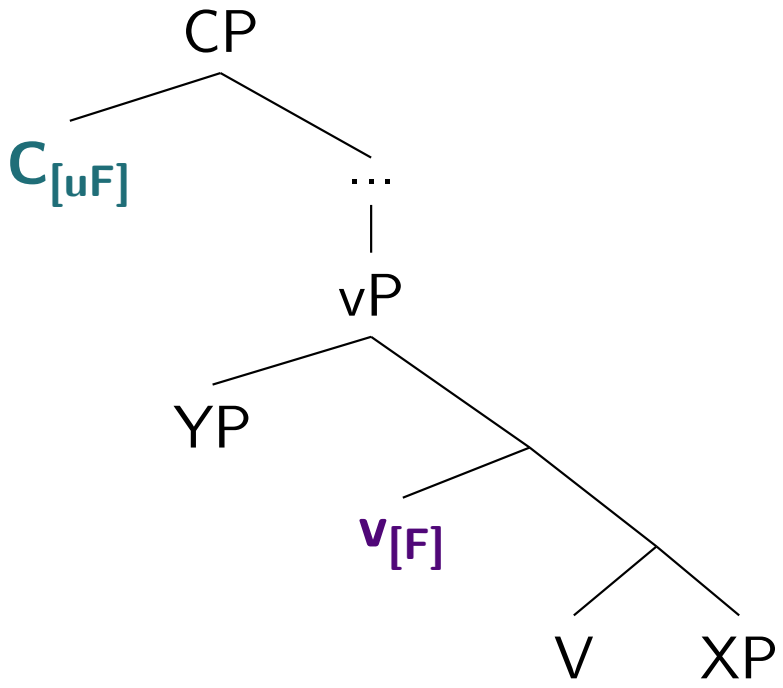

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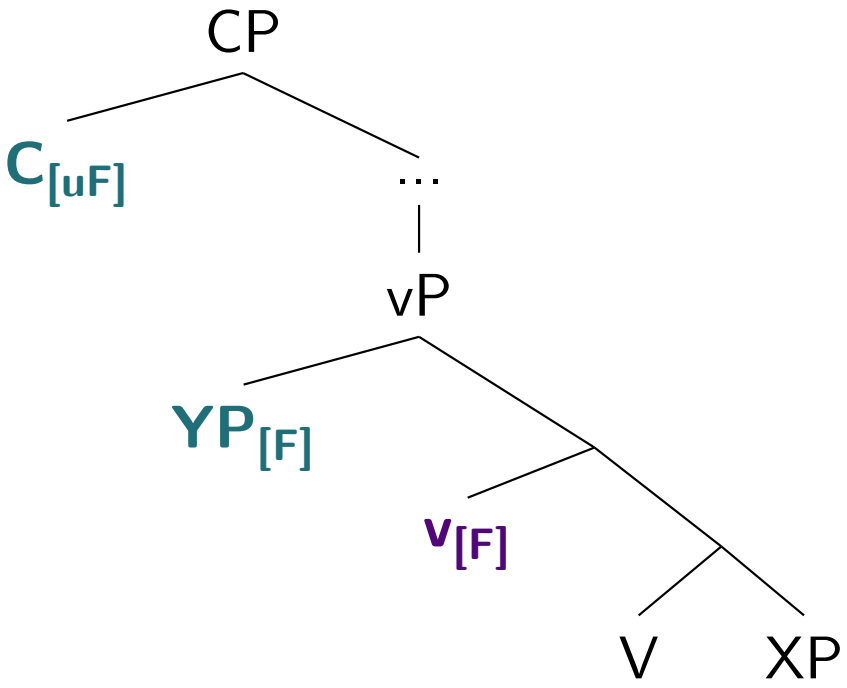

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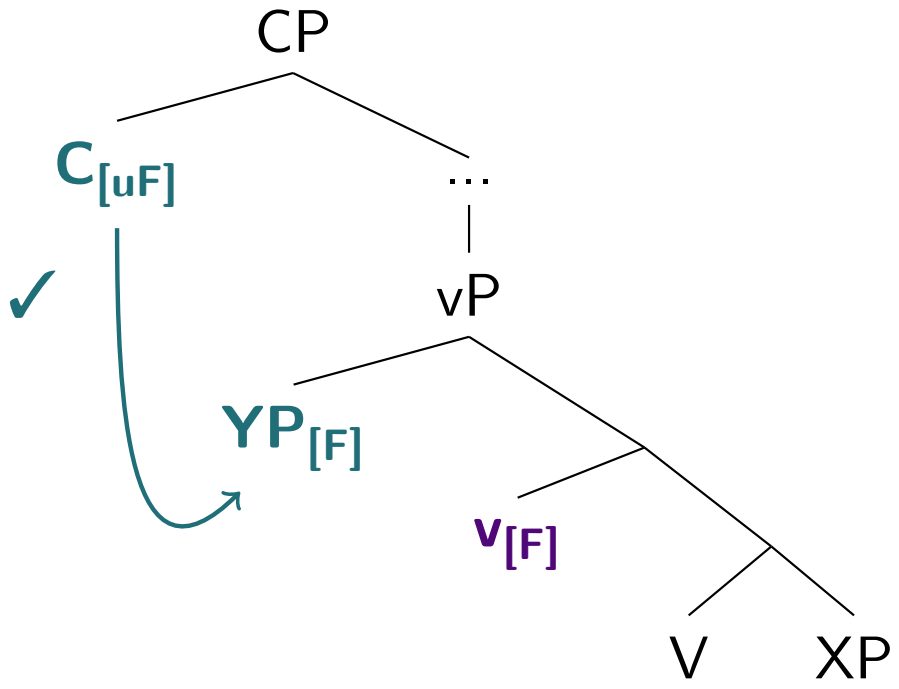

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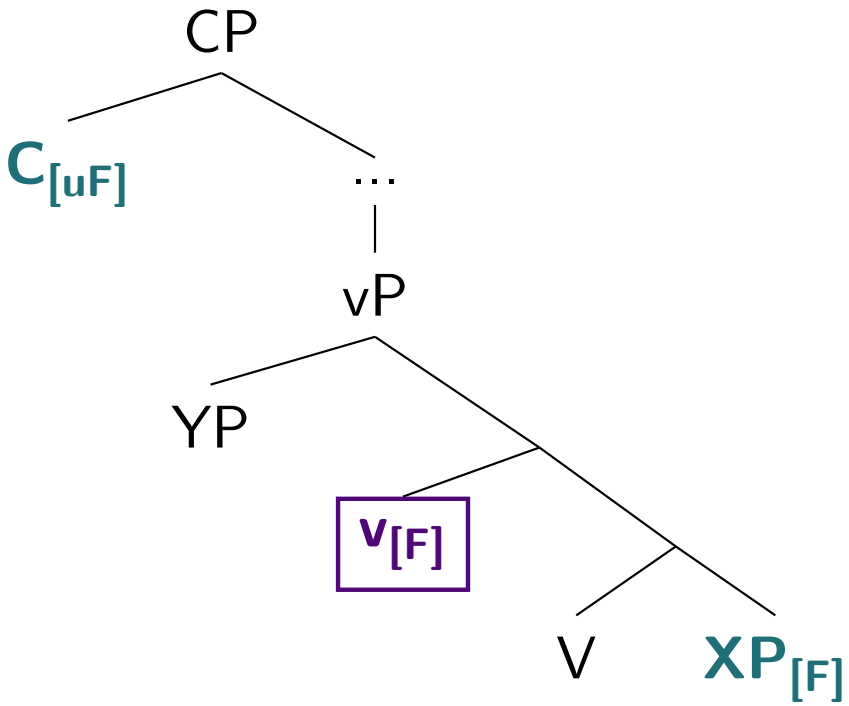

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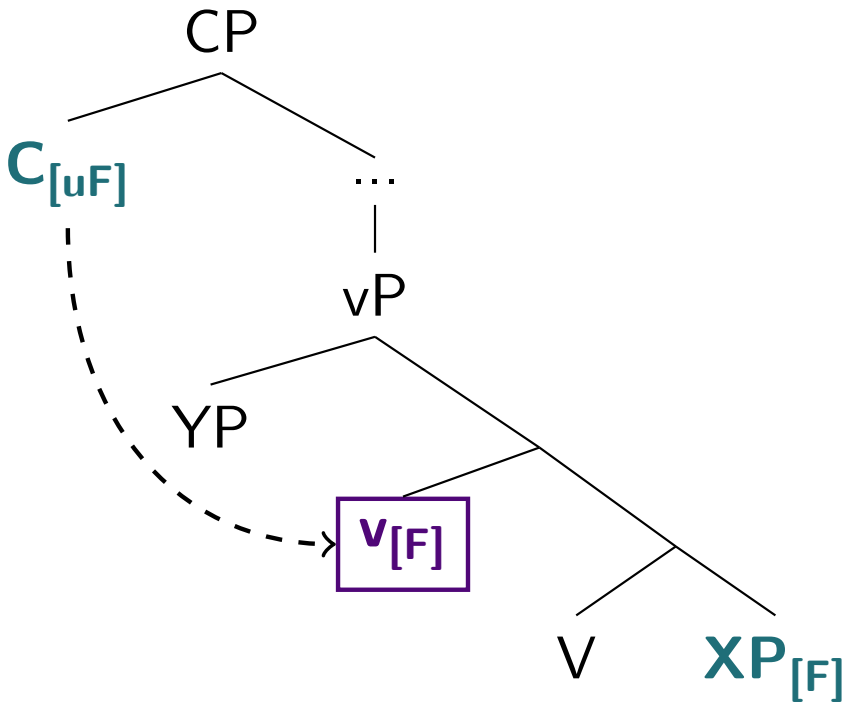

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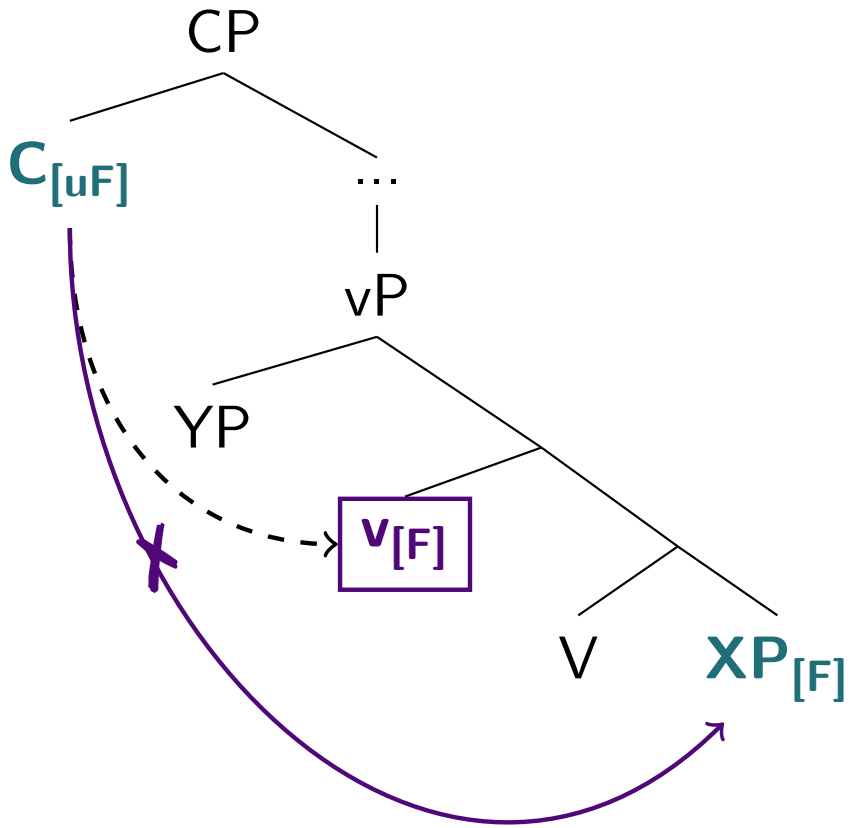

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- Spellout domains: DP and CP

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⇒ Locality domains are not opaque due to PF transfer.

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  these constituents are identifiable as **spellout domains**

Roadmap

- **Background on West Circassian**

Roadmap

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- **Background on West Circassian**
- Phases in the syntax: interveners for Agree
- Phases at the interface: spelling out polysynthesis
- Wrapping up: phases in polysynthesis

West Circassian

West Circassian (or Adyghe):

West Circassian

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- Northwest Caucasian

West Circassian

West Circassian (or Adyghe):

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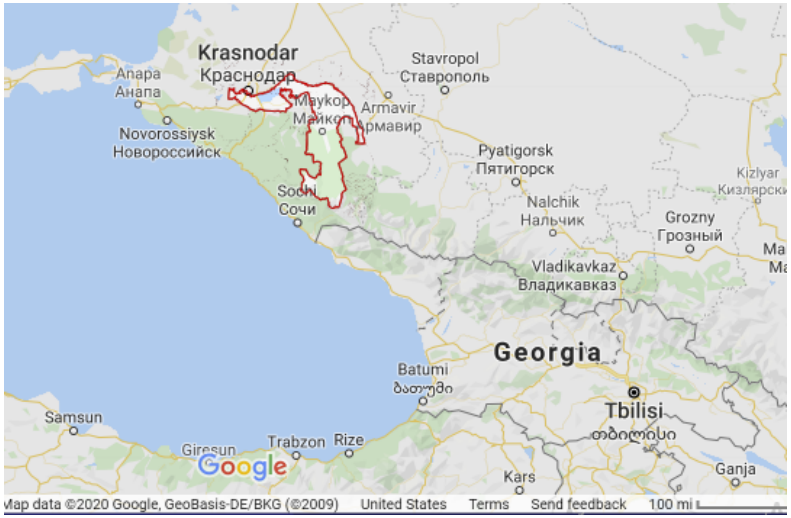
- Republic of Adygea, Russia



West Circassian

West Circassian (or Adyghe):

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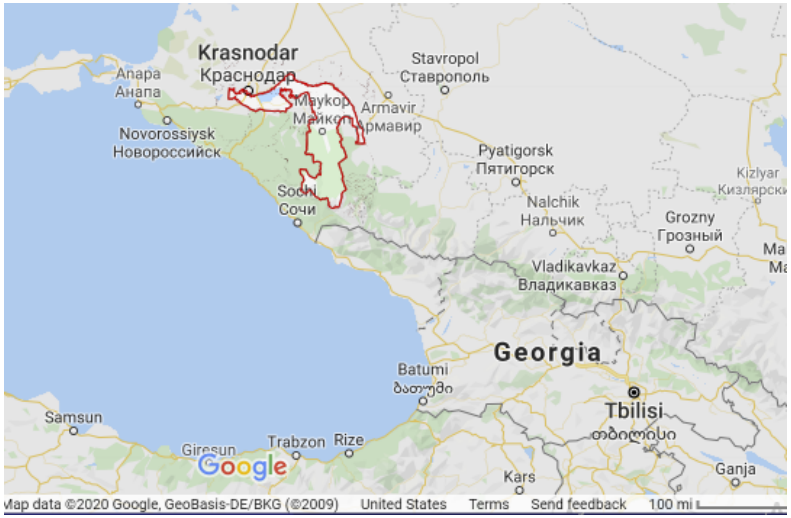
- agglutinating, polysynthetic



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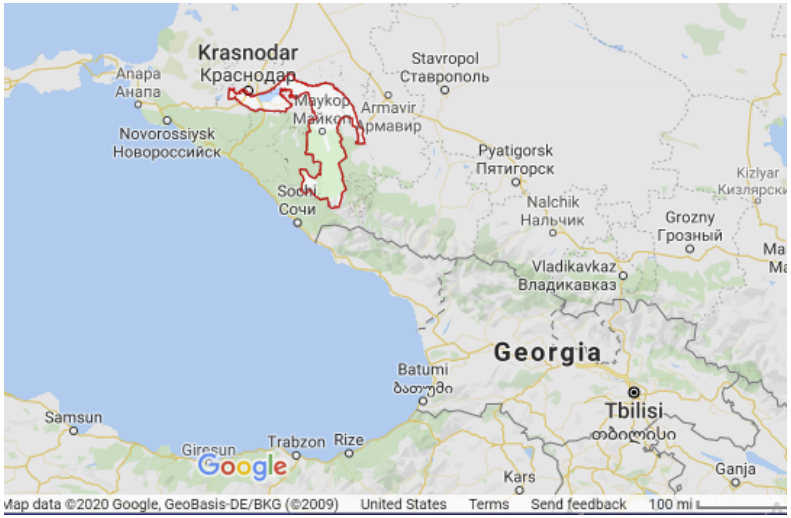

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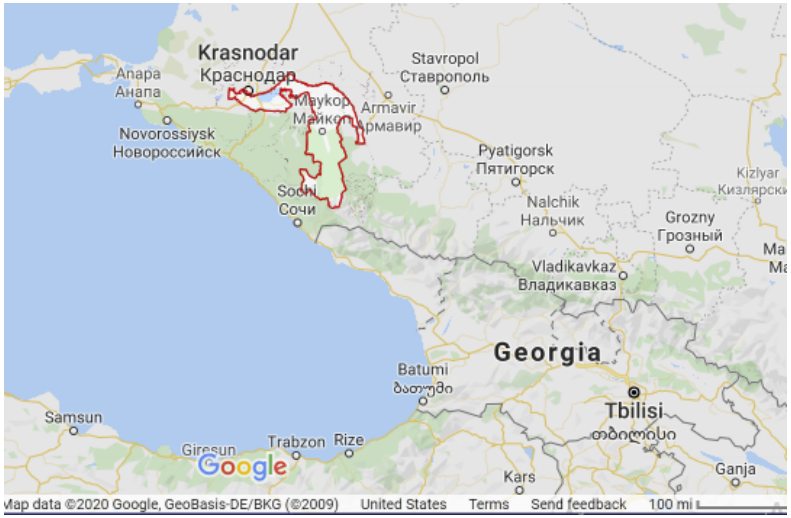

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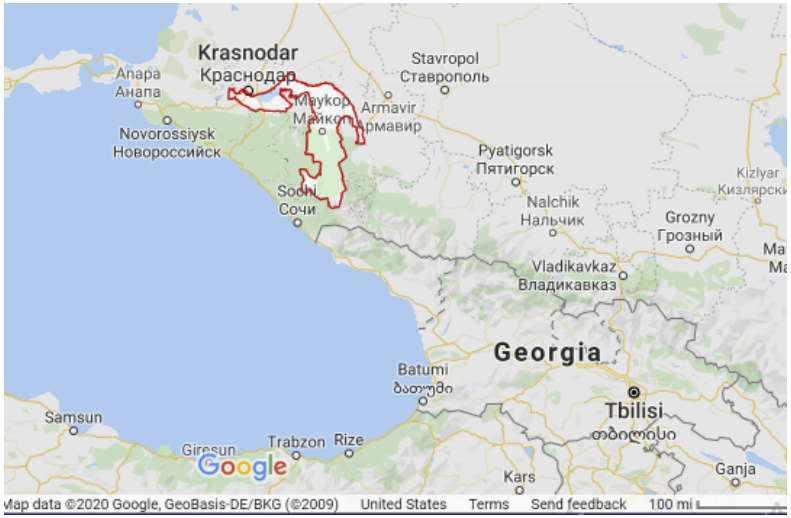

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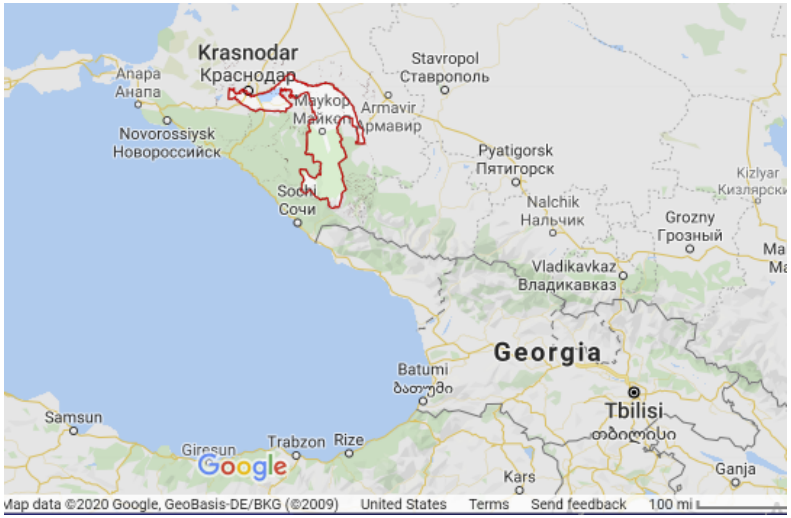

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West Circassian is polysynthetic

Agglutinating prefixal and suffixal morphology:

West Circassian is polysynthetic

Agglutinating prefixal and suffixal morphology:

wəqəzereŝhapərəzʁewəḳʷəreječ̣'əž'əŝʷəʁaʁer

wə-	qə-	zere-	ŝha-	pə-	rə-	z-	ʁe-
2SG.ABS-	DIR-	FACT-	head-	LOC-	TRANS-	1SG.ERG-	CAUS-
wəḳʷereje	-č̣'ə	-ž'ə	-ŝʷə	-ʁa	-ʁe	-r	
fall	-go.out	-RE	-POT	-PST	-PST	-ABS	

'that I was able to make you turn a somersault'

(Lander and Testelets 2017:952)

West Circassian is polysynthetic

Head marking and pro-drop:

West Circassian is polysynthetic

Head marking and pro-drop:

$$səqəpfarjəʁeλeʁ^{w}əʁ$$

West Circassian is polysynthetic

Head marking and pro-drop:

səqəpfarjəʁeλeʁʷəʁ

sə-	qə-	p-f-	a-r-	jə-	ʁe-
1SG.ABS-	DIR-	2SG.IO+BEN-	3PL.IO+DAT-	3SG.ERG-	CAUS-
λeʁʷə	-ʁ				
see	-PST				

'He showed me to them for your sake.'

(Korotkova and Lander 2010:301)

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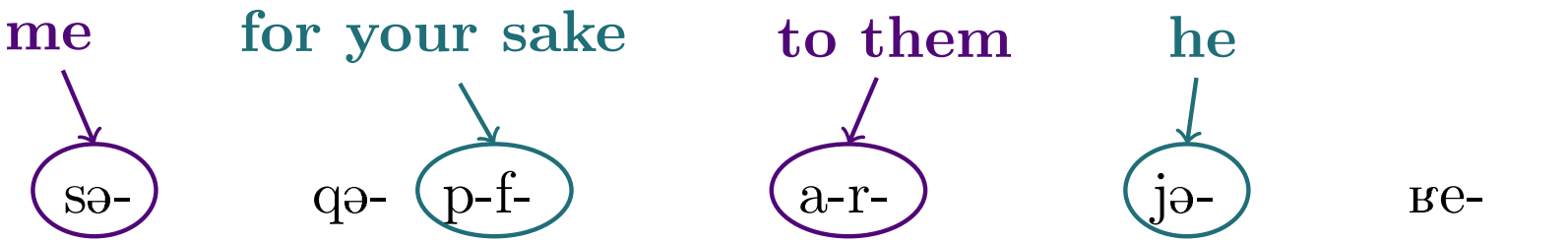

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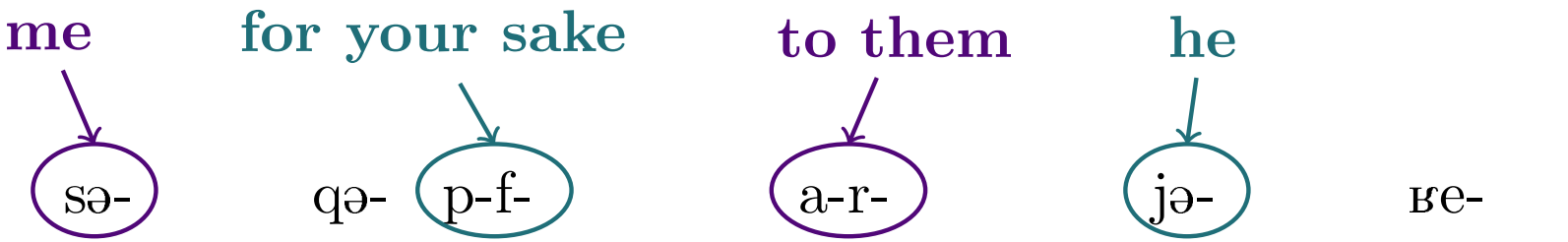

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Order of cross-reference markers:

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Complex nominal morphology

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[cʷeqe- əc̓’jə- š’əʁən]- **tʷec̓’an** -xe -r
footwear- and- clothes- shop -PL -ABS

‘shops of shoes and clothes’ (Lander 2017:93)

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footwear- and- clothes- shop -PL -ABS

‘shops of shoes and clothes’ (Lander 2017:93)

[abʒexe]- **šəw** -jə- šʼ
Abzakh- horseman -LNK- three

‘three Abzakh horsemen’ (Lander 2017:83)

Head marking on nominals

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s-	šəpχ^{w}əxer
1sg.poss-	sister.PL.ABS

‘my sisters’

INALIENABLE

Head marking on nominals

s-	šəpχ^{w}əxer	
1SG.POSS-	sister.PL.ABS	

‘my sisters’ **INALIENABLE**

t-	**jə-**	ʁ^{w}ənеʁ^{w}əxem
1PL.POSS-	**ALIEN-**	neighbor.PL.OBL

‘our neighbors’ **ALIENABLE**

Case marking

Case marking

-r (ABS):

Case marking

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- intransitive subject

S

mə	pŝaŝe-**r**	daxew	qaŝ^{w}e
this	girl-**ABS**	well	dances

'This girl dances well.'

Case marking

-r (ABS):

- intransitive subject
- direct object

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A	**O**	
sabəjxe-**m**	haxe-**r**	qaλeʁ^{w}əʁ
children-**OBL**	dogs-**ABS**	saw

'The children saw the dogs.'

Case marking

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IO

mafe-qes jeǯaṗe-**m** seḳ^{w}e
day-each school-**OBL** go

'I go to school every day.'

Case marking

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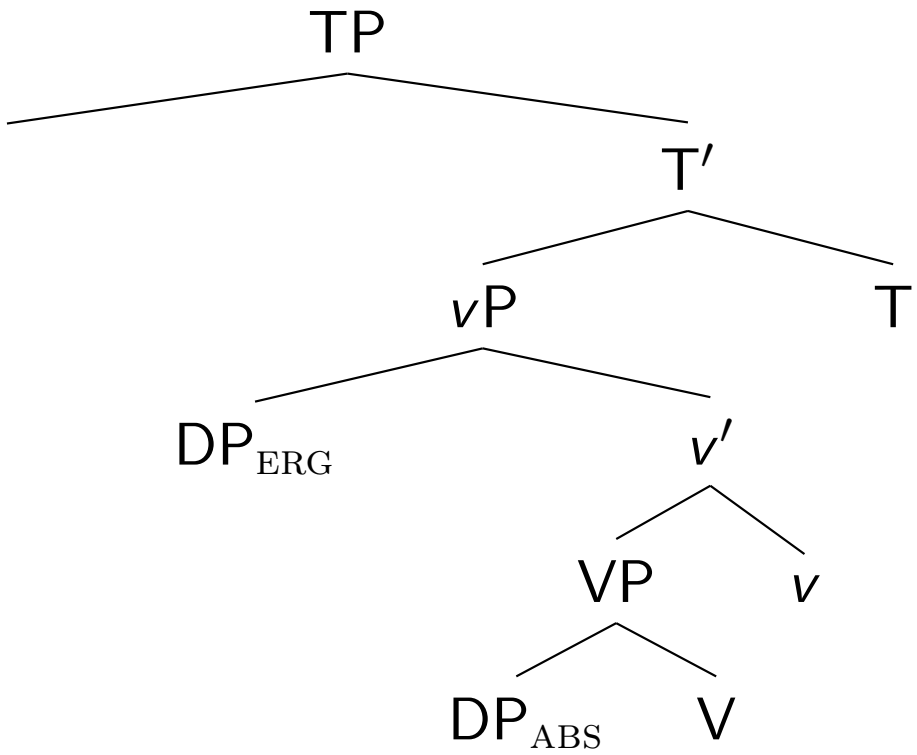
Case marking on possessors

pŝaŝe-**m**	Ø-jə-pŝeŝeʁʷ
girl-**OBL**	3SG.POSS-ALIEN-female.friend

'the girl's friend'

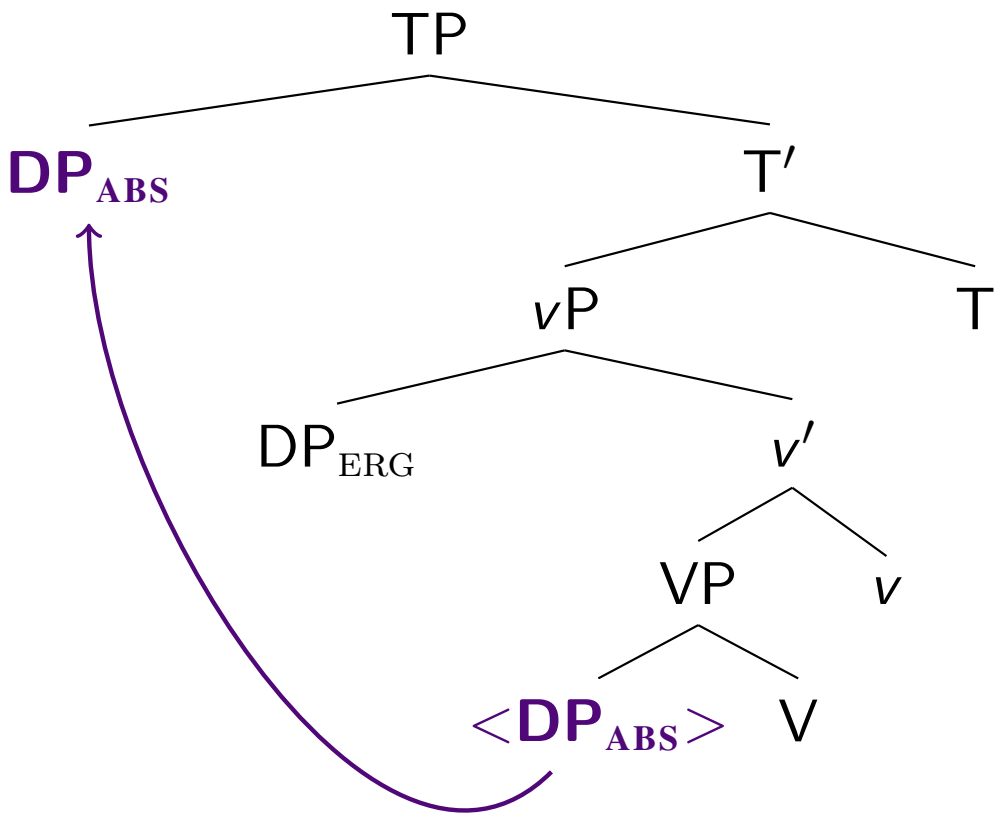
High absolutive



(Bittner and Hale 1996; Manning 1996; Baker 1997; Aldridge 2008; Yuan 2018, 2022; Coon et al. 2021; Royer 2023, a.o.)

High absolutive

- DP_{ABS} moves to Spec,TP



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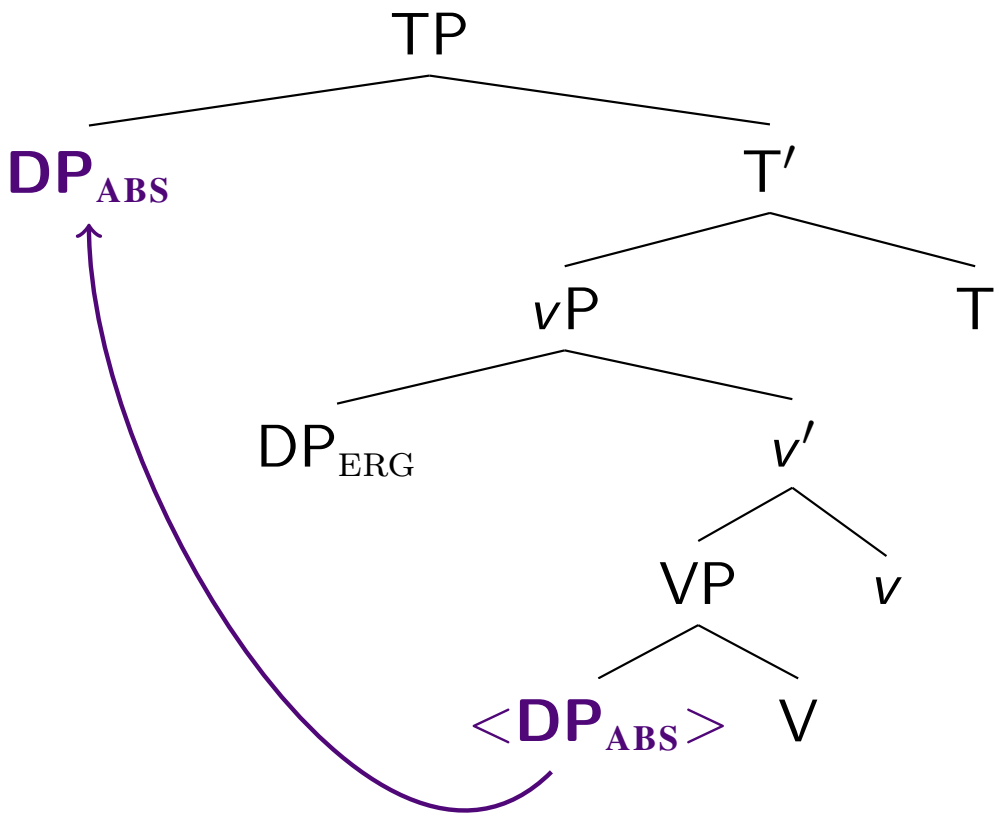

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High absolutive

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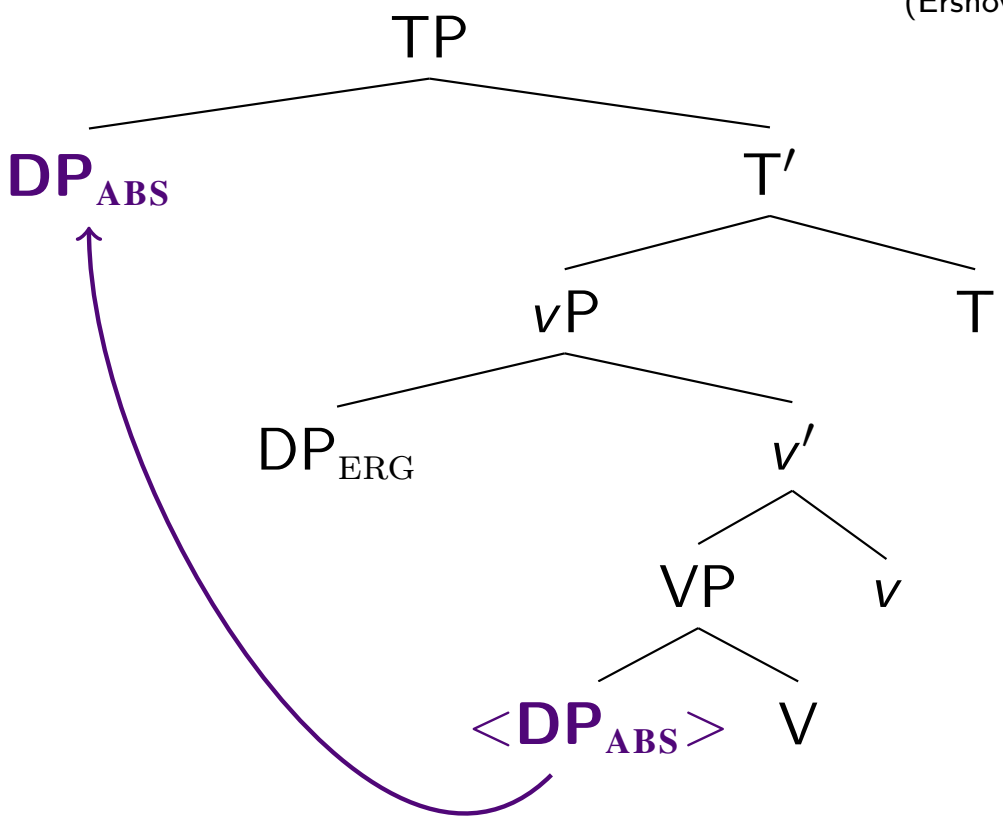
- evidence from parasitic gaps and reciprocal binding

(Ershova 2019, 2021, 2023b)



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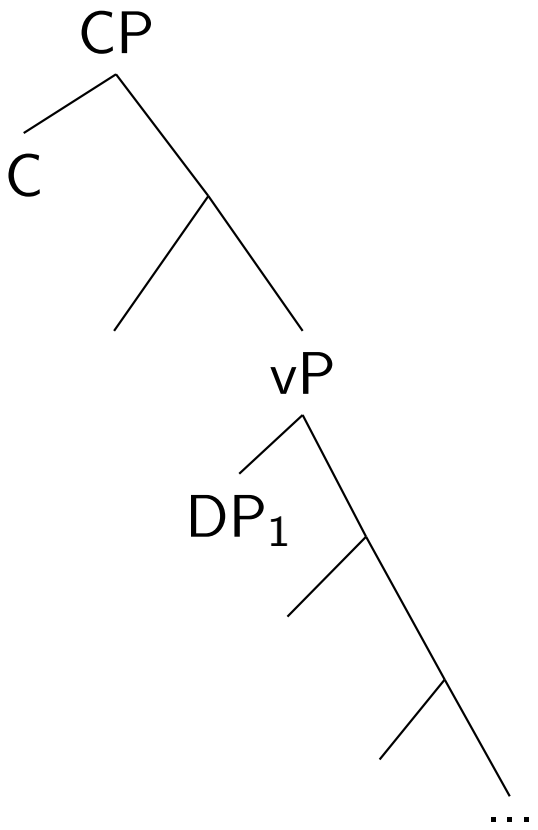
West Circassian: Successive-cyclic movement is possible when clausebound movement isn't!

Agree-based theory of locality domains



- Movement is triggered by Agree between a **probe** and the closest **goal**

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

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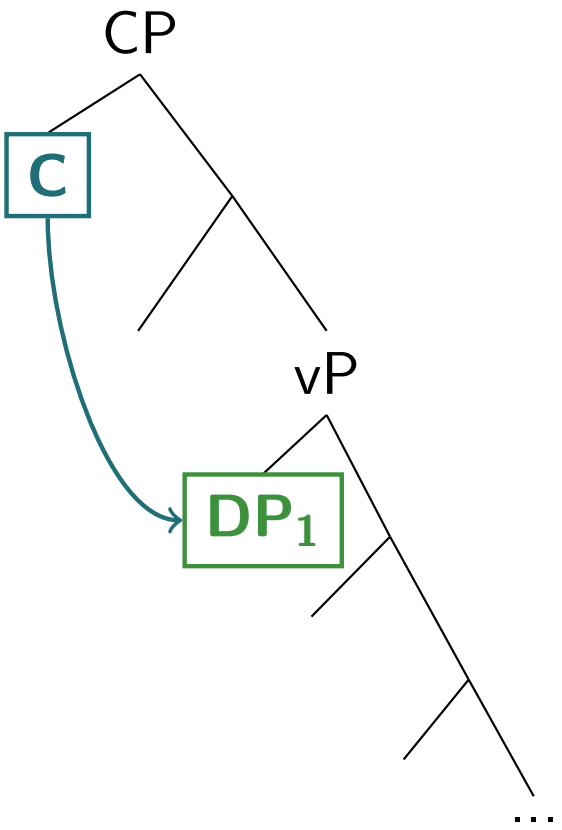

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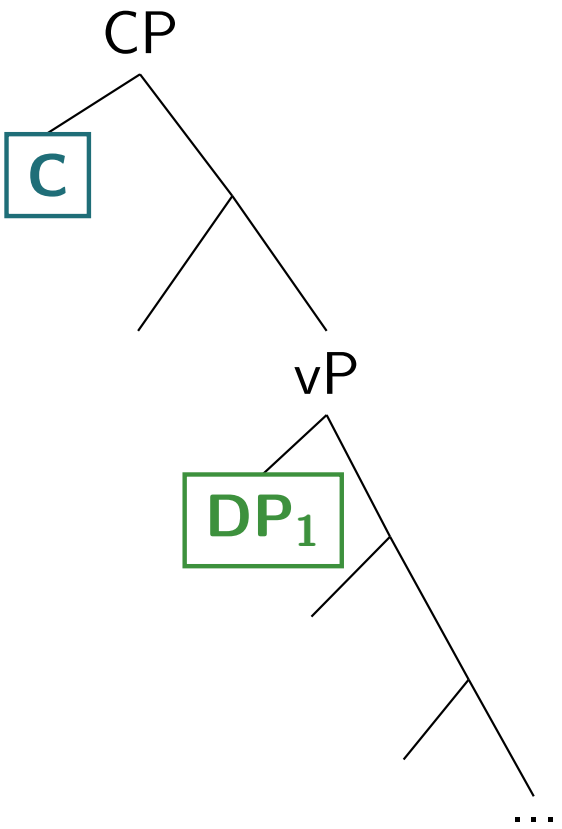

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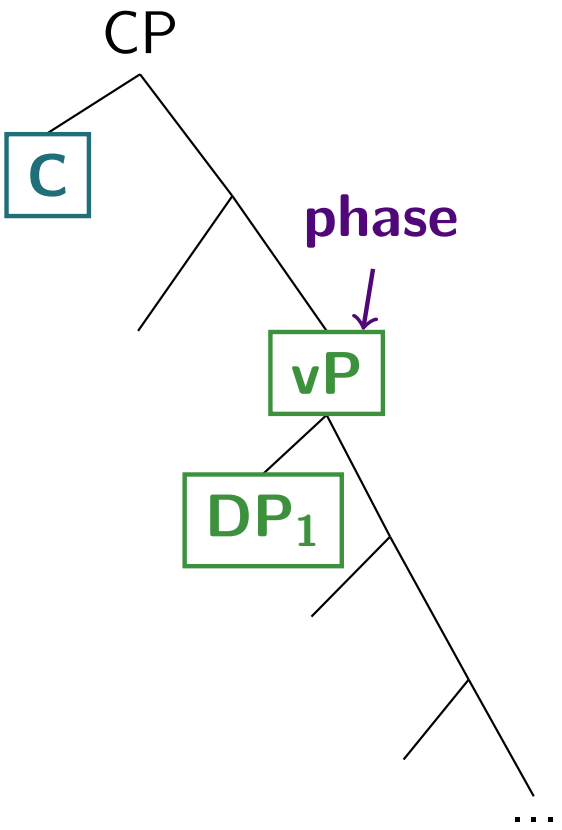

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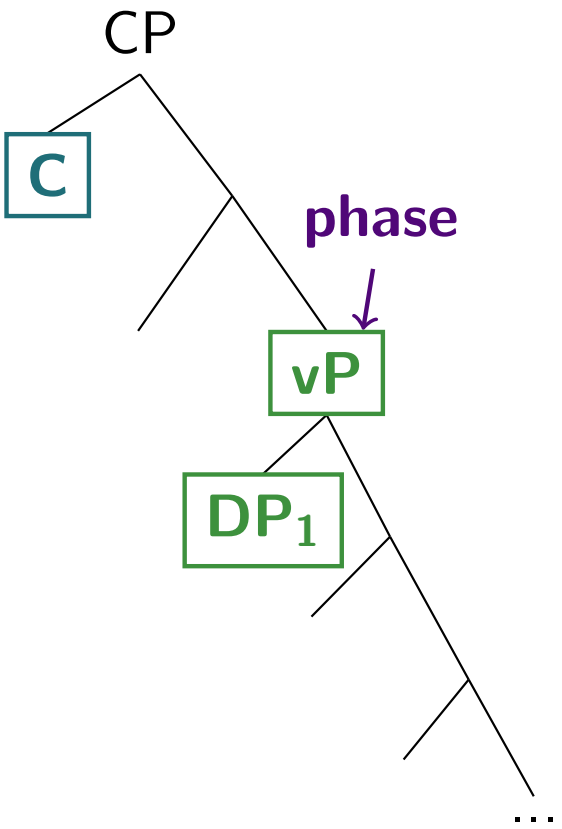

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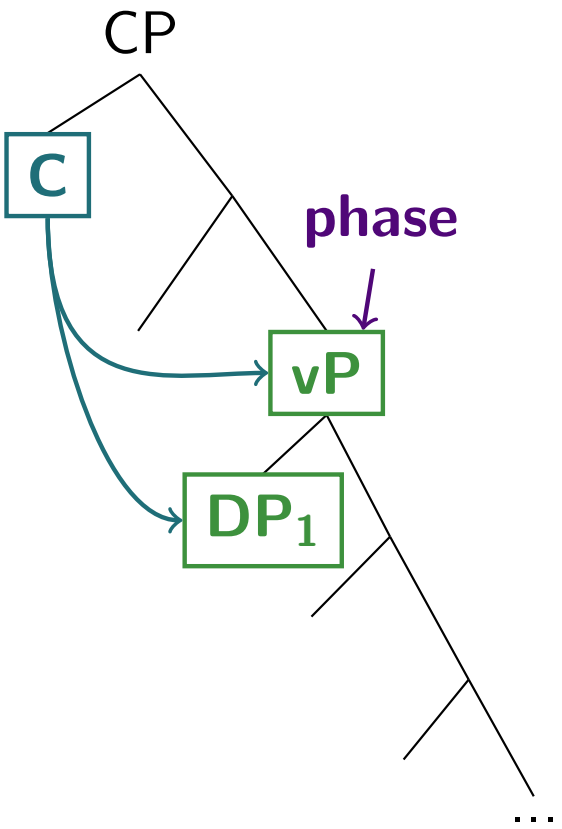

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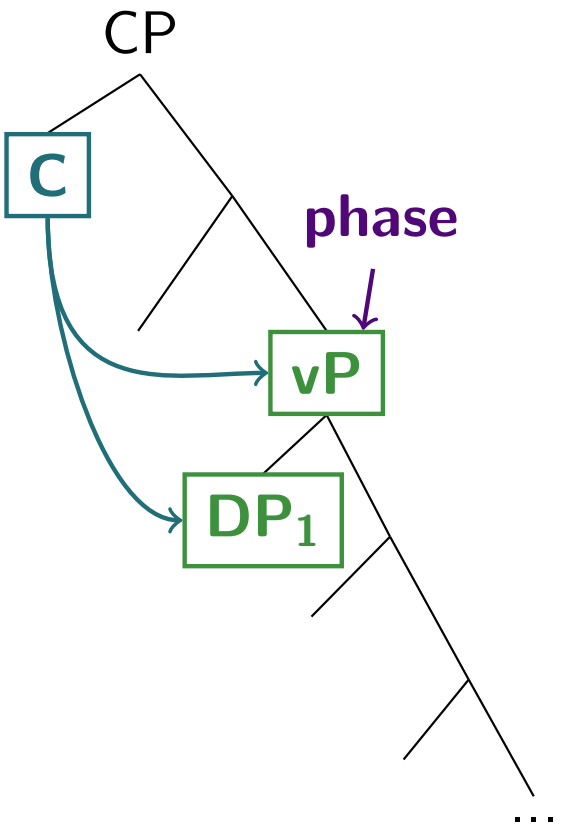
Agree-based theory of locality domains



- Movement is triggered by Agree between a **probe** and the closest **goal**
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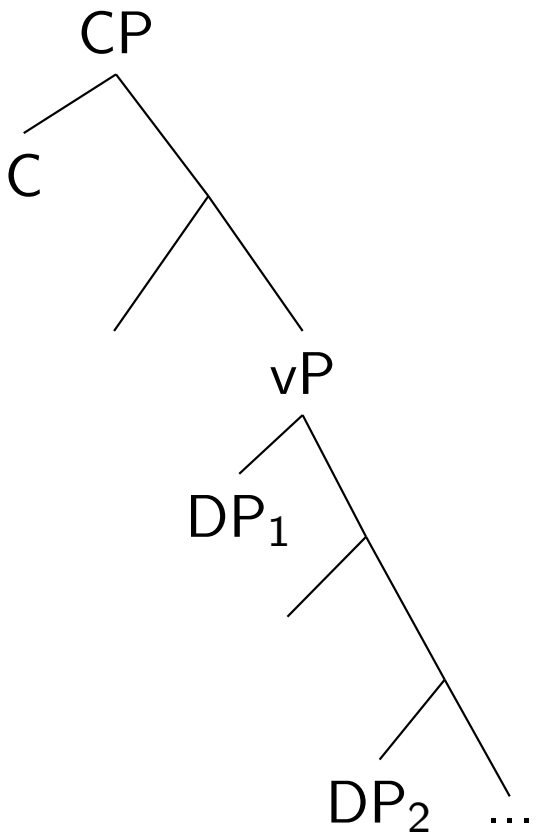
because there is no XP
which c-commands or dominates DP_1,
but does not c-command or dominate vP

> 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)

Phases as interveners



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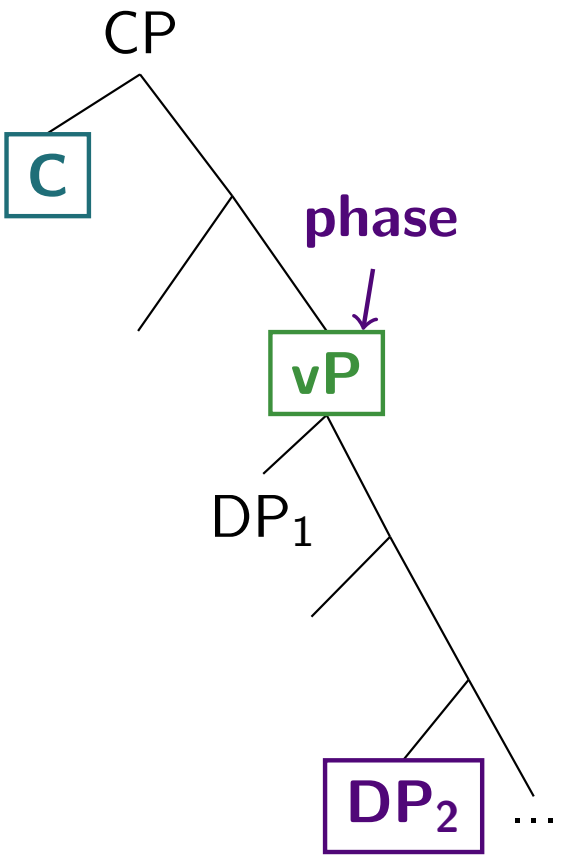

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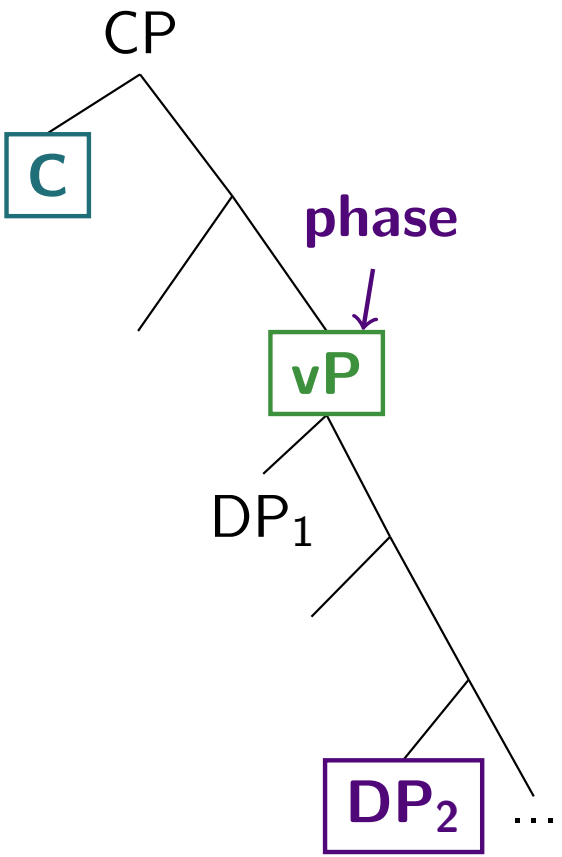

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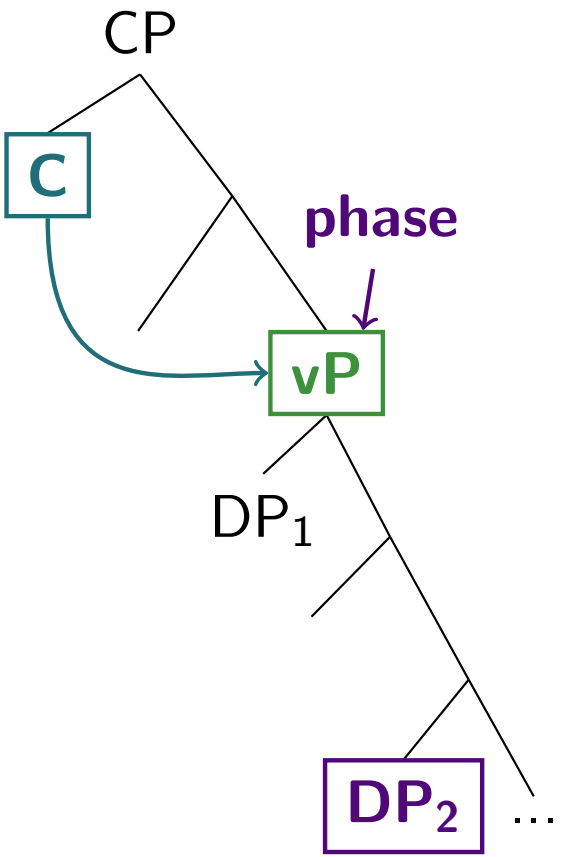

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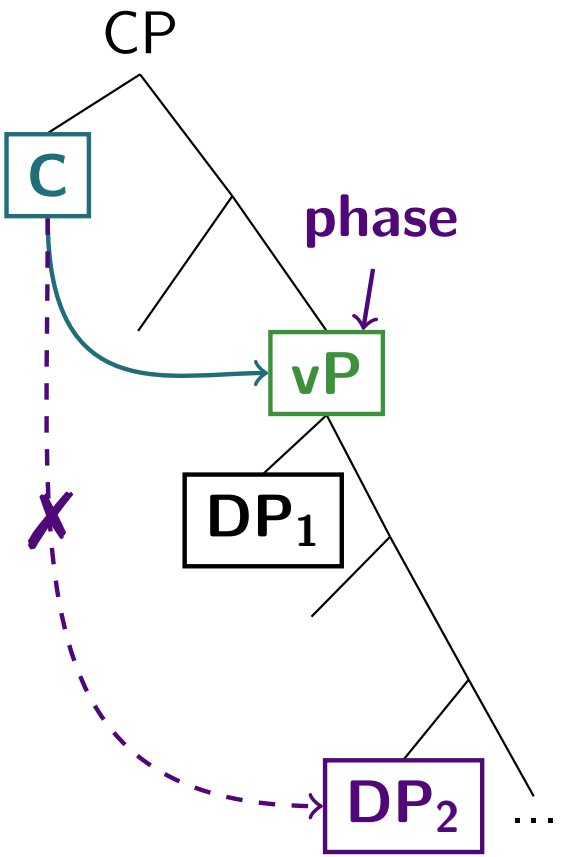

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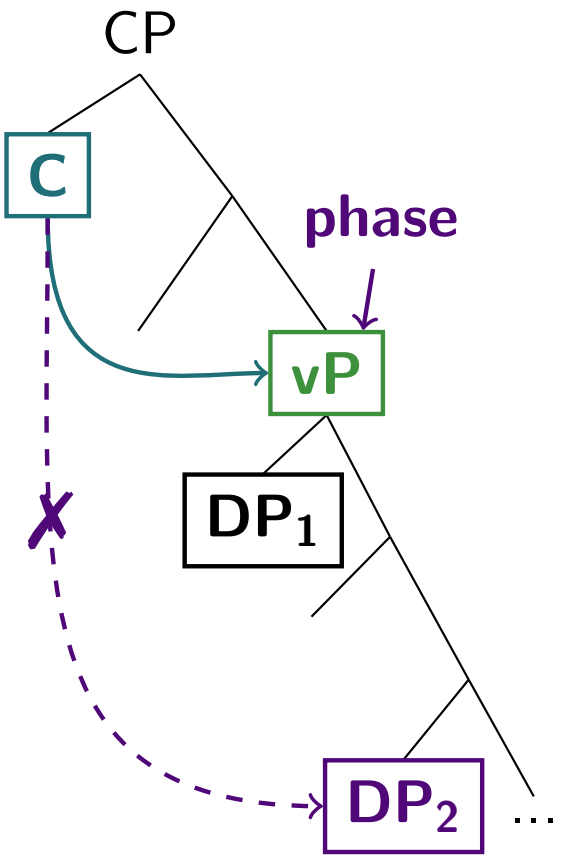

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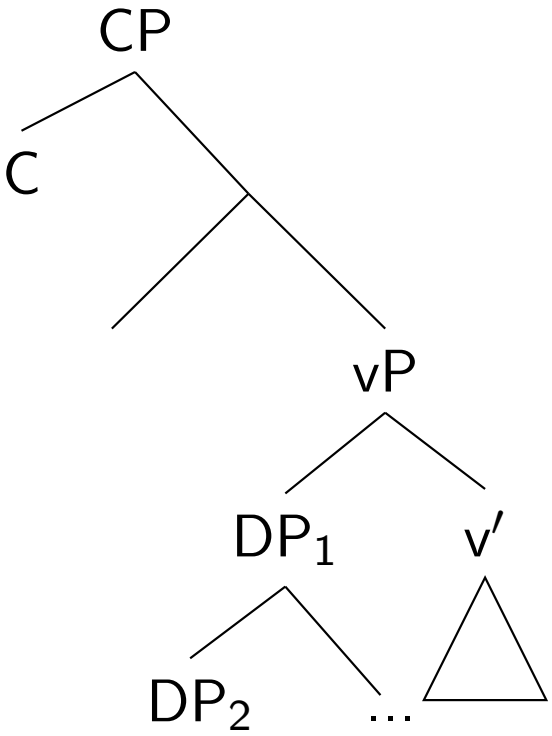
Phase edges are opaque for subextraction



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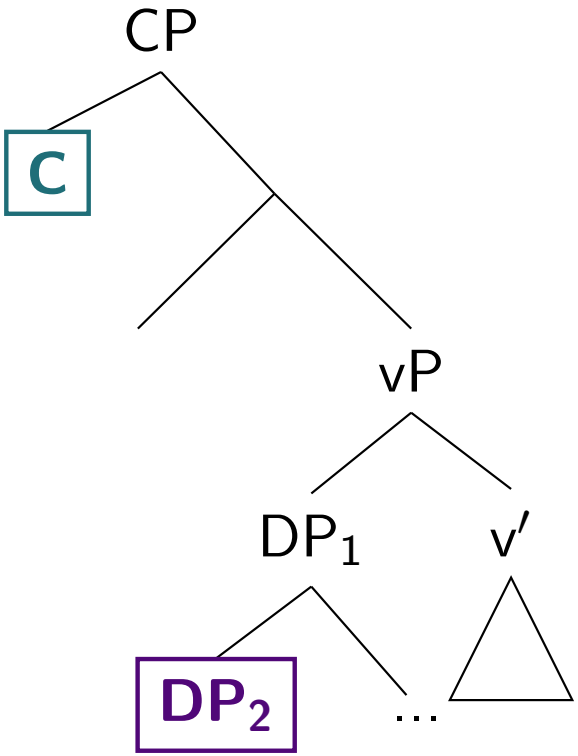

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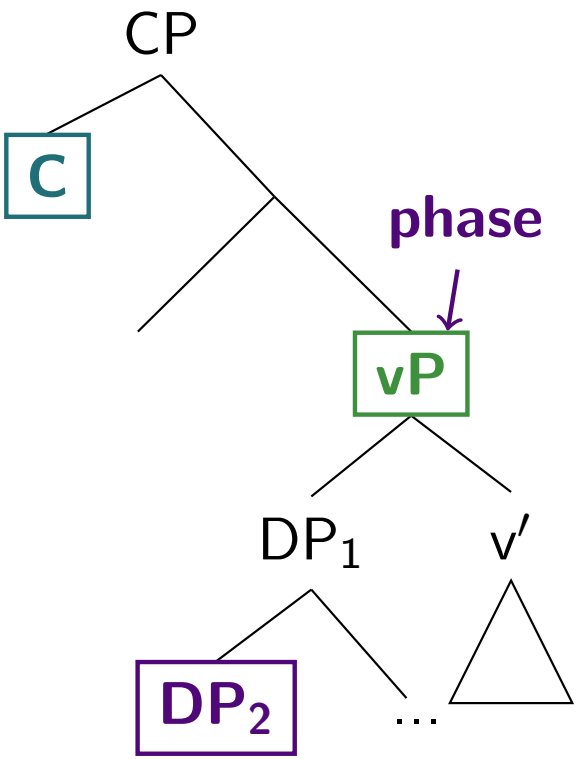

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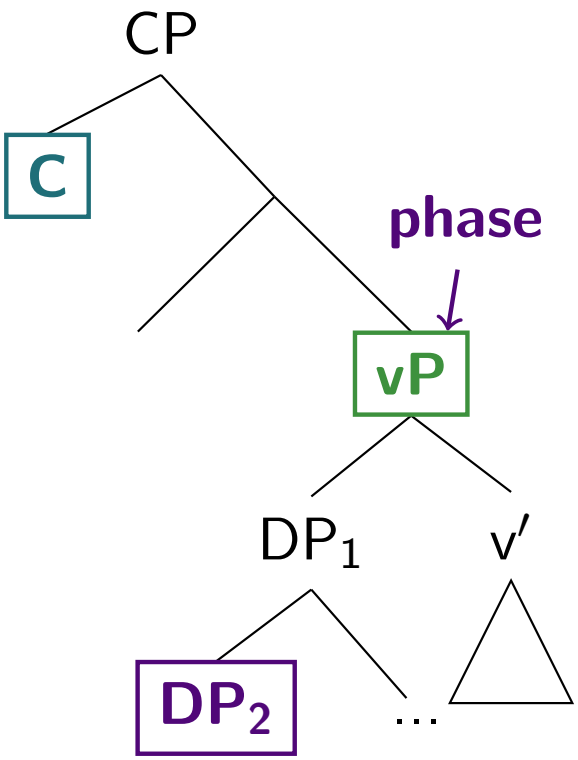

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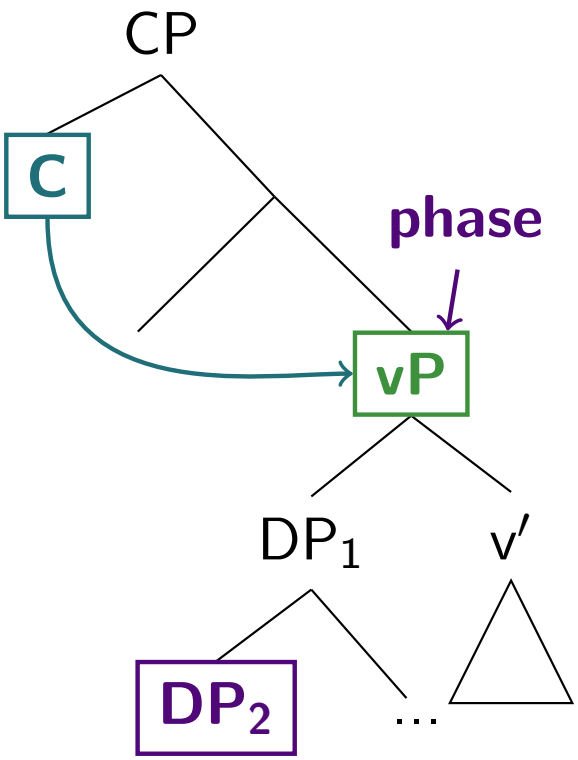

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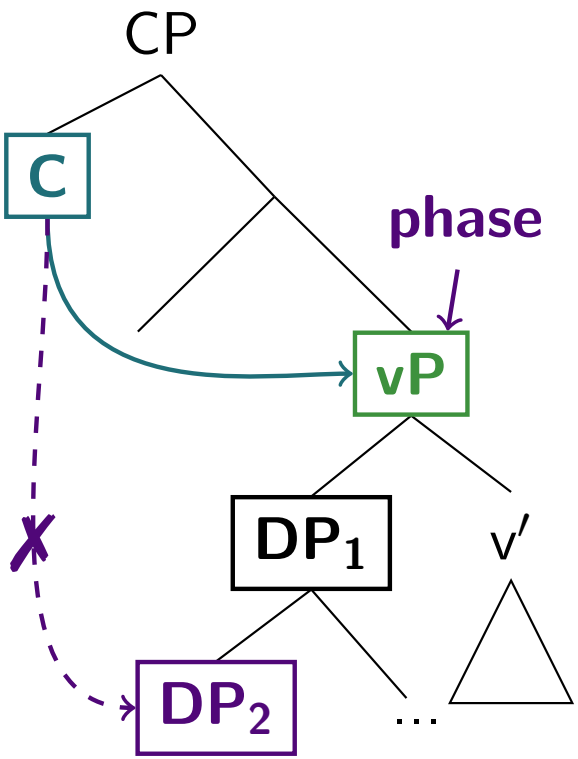

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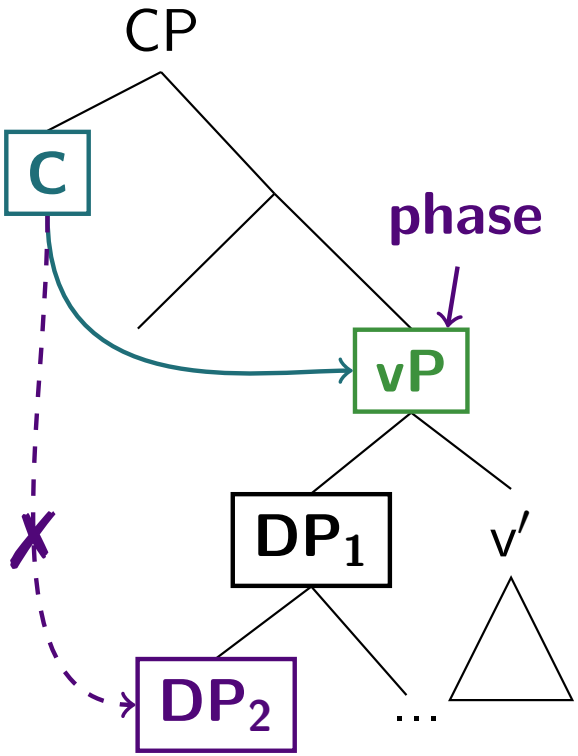

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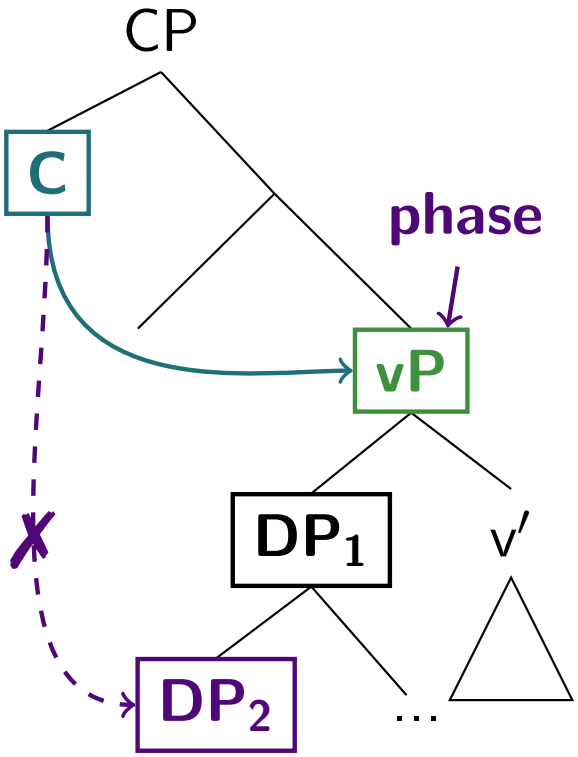

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Next: Phasehood effects in West Circassian relativization.

Structure of relative clauses

(Caponigro and Polinsky 2011; Lander 2012; Ershova 2021, 2023b)

Finite clause:

a-š’		txəλə-r			[	mə	ɕ̣əfə-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.’

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(Caponigro and Polinsky 2011; Lander 2012; Ershova 2021, 2023b)

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‘S/he gave a book to this person.’

Relative clause:

WH-MOVEMENT

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

ç̣əfə-r

person-ABS

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

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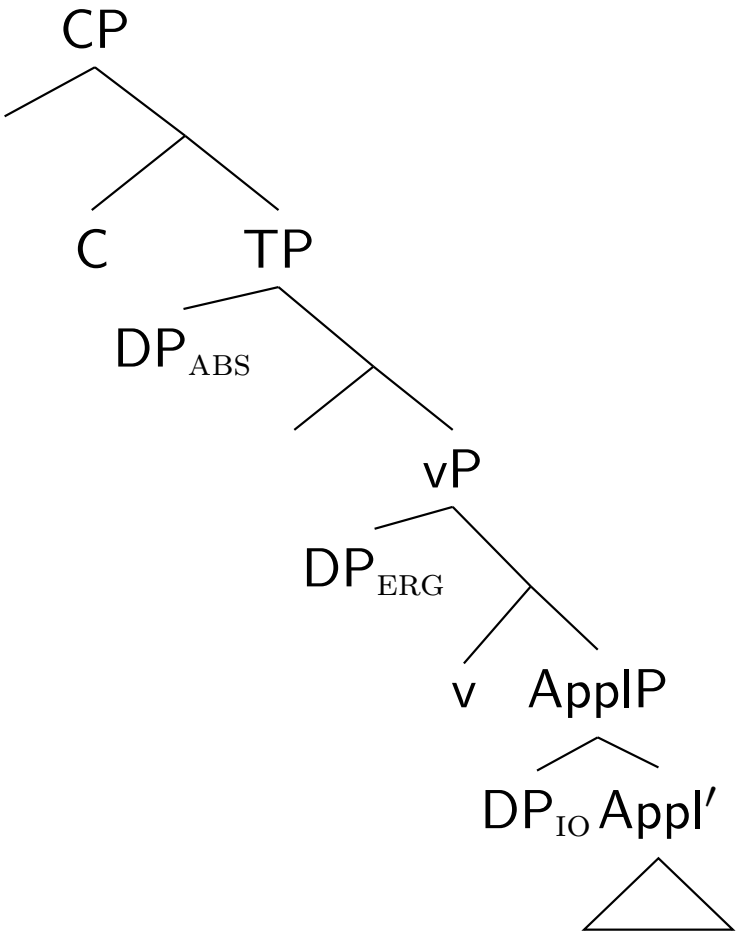

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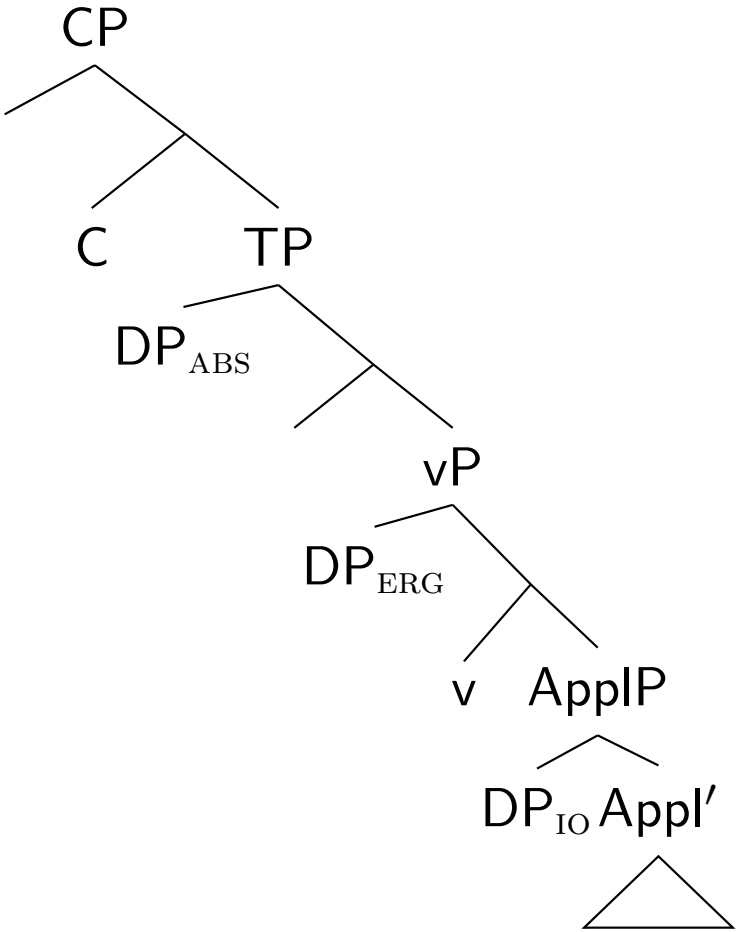

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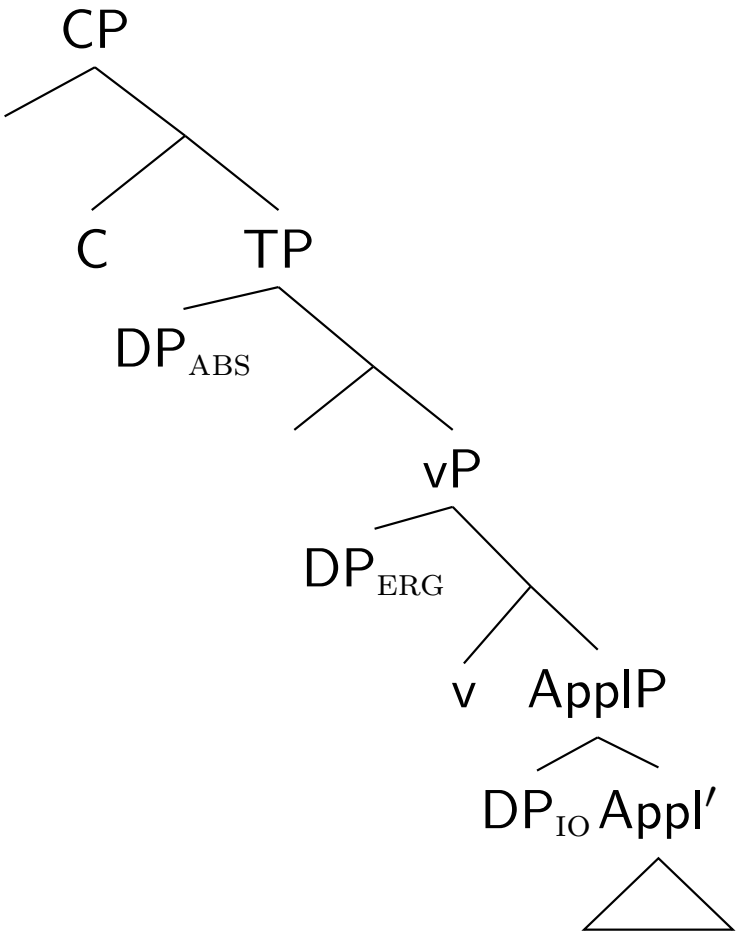

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$\Rightarrow$ ABS can move

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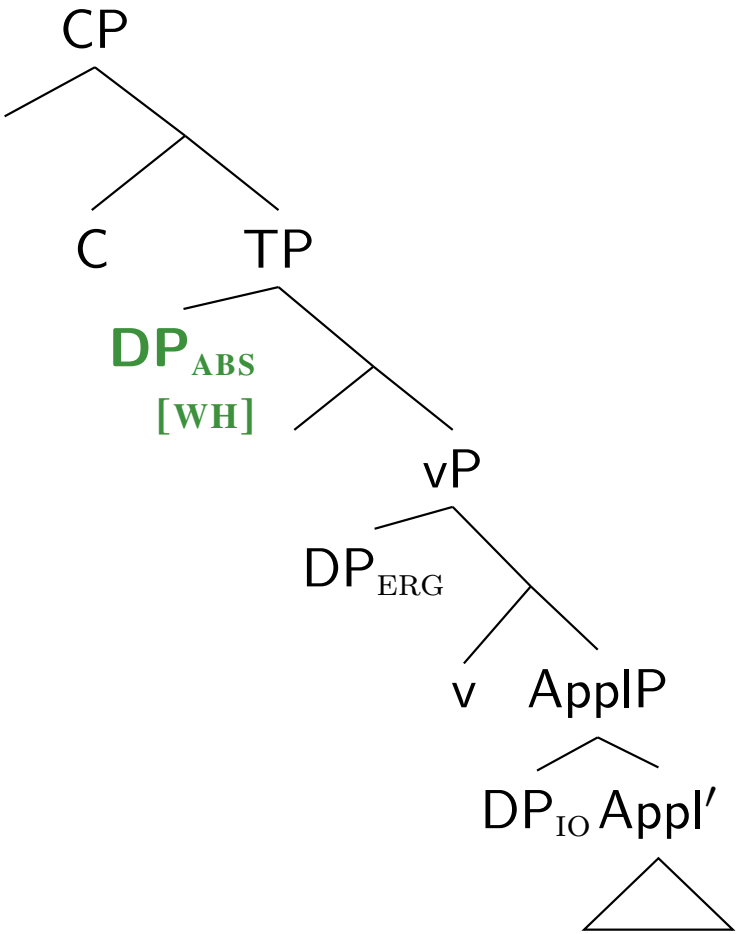

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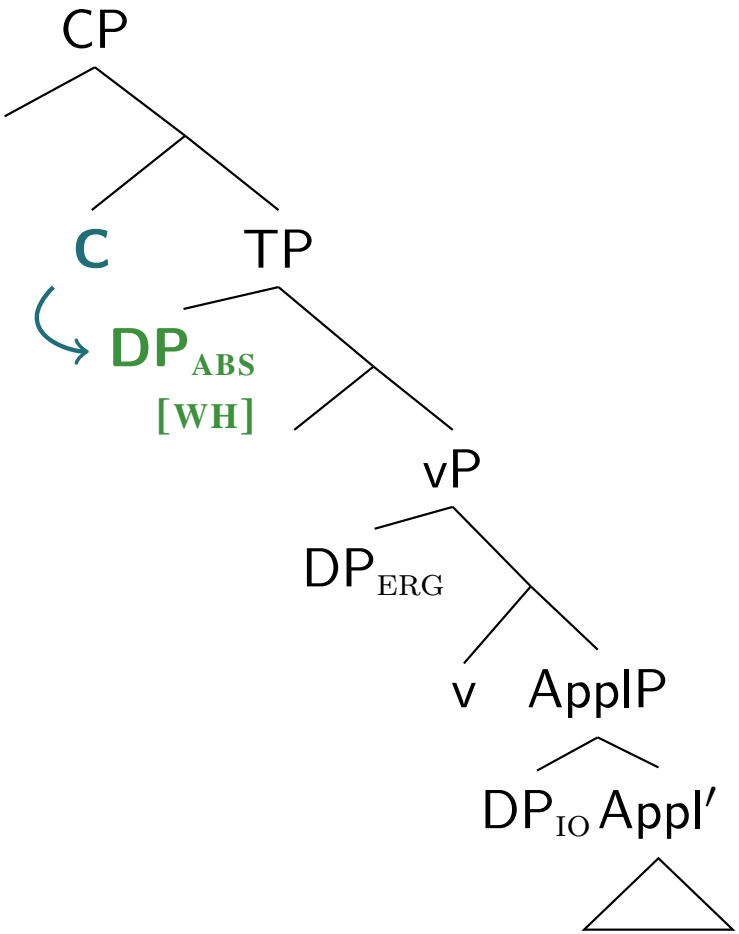

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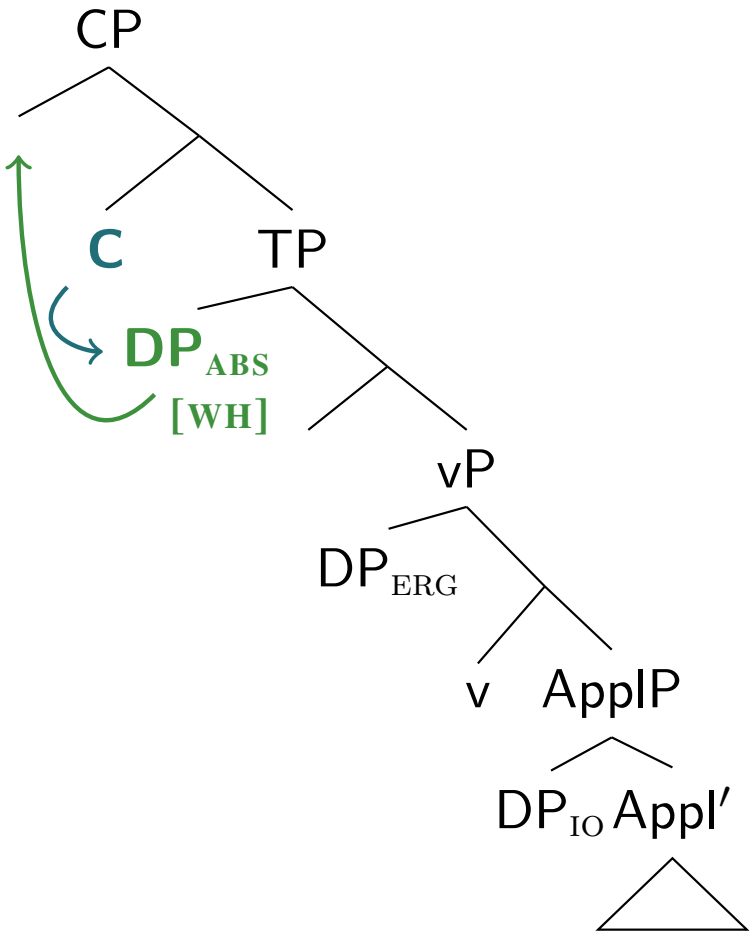

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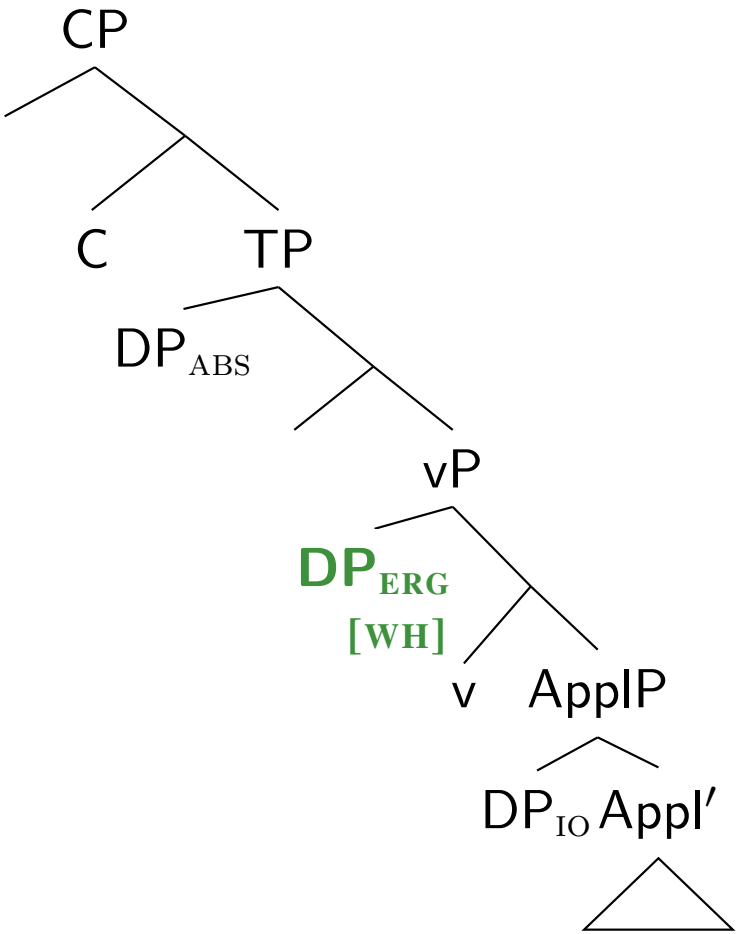

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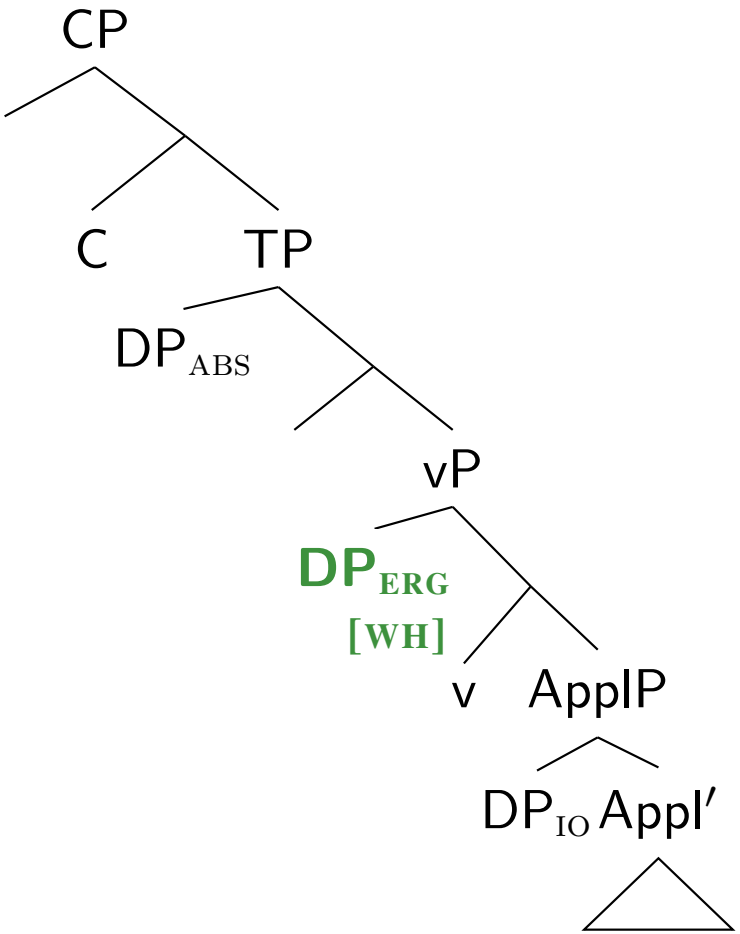

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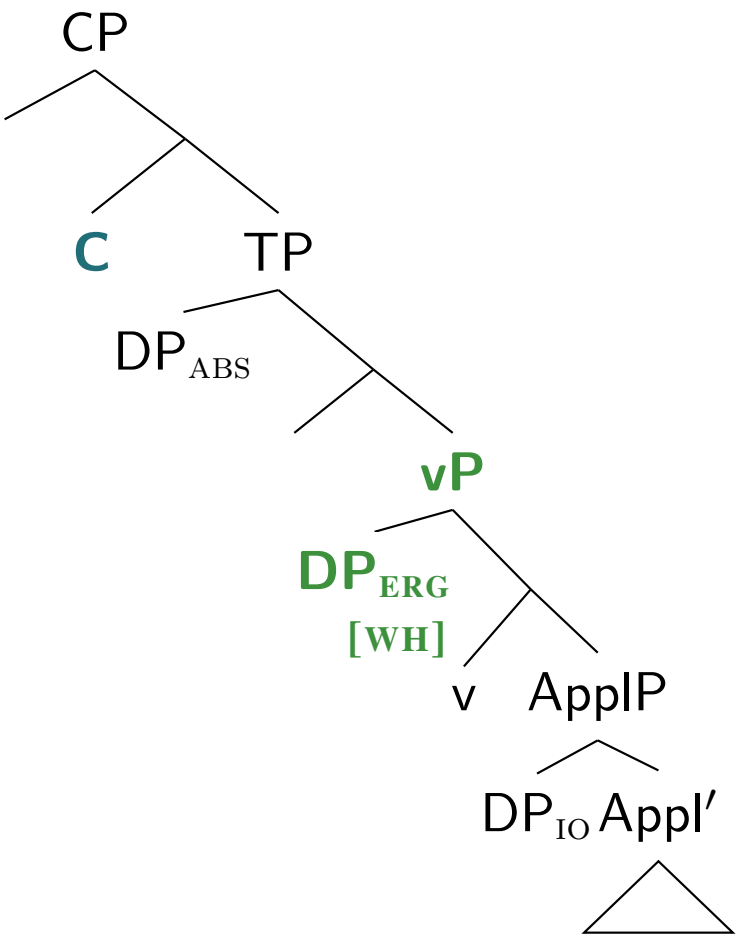

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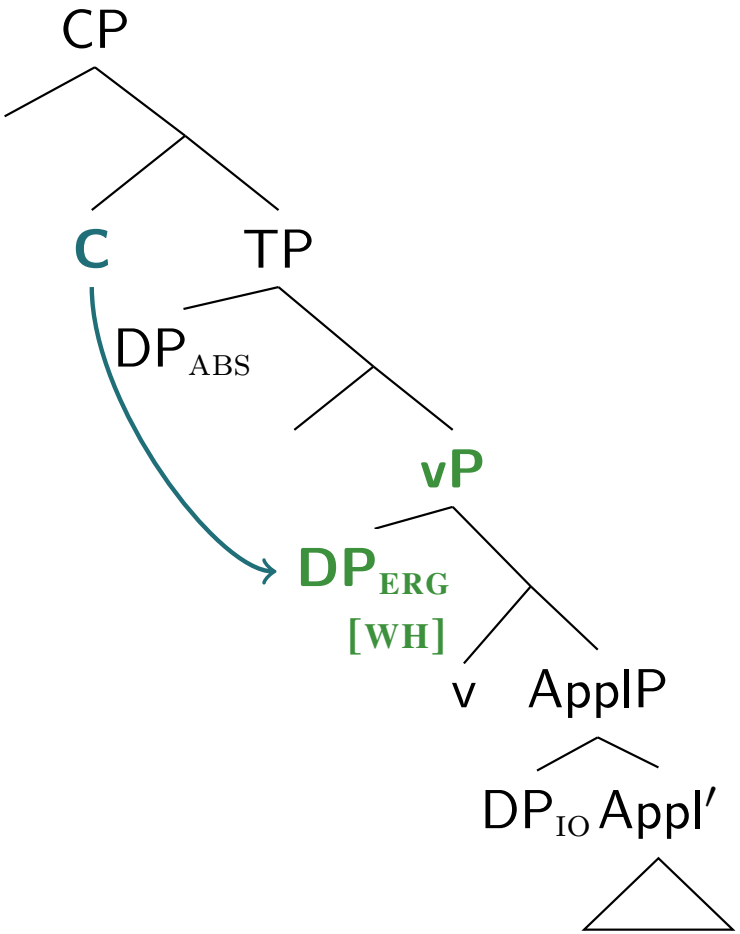

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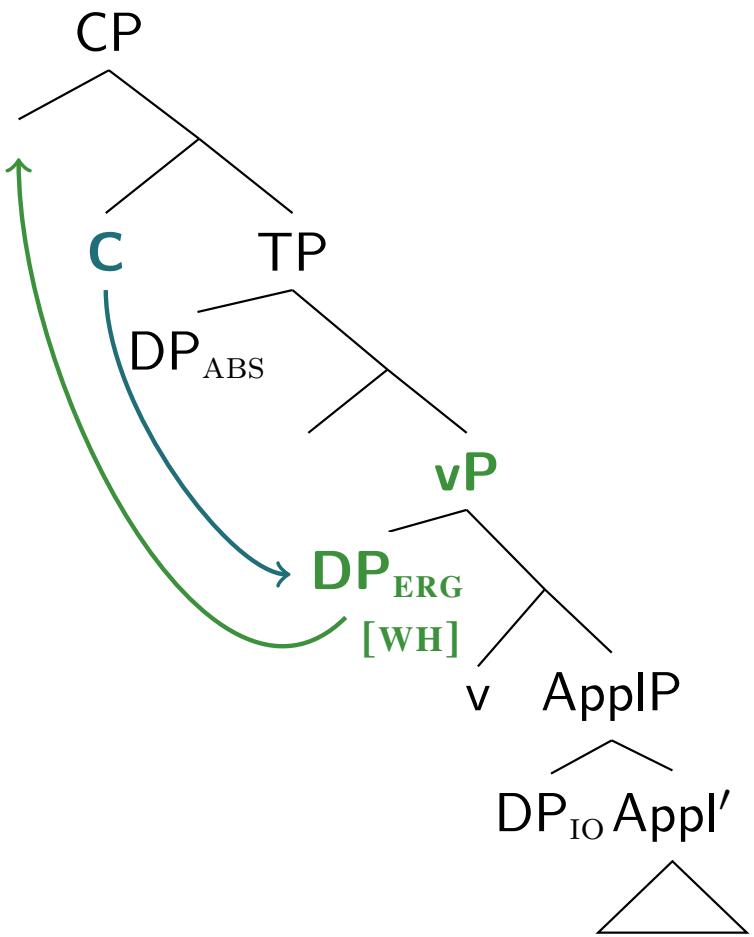

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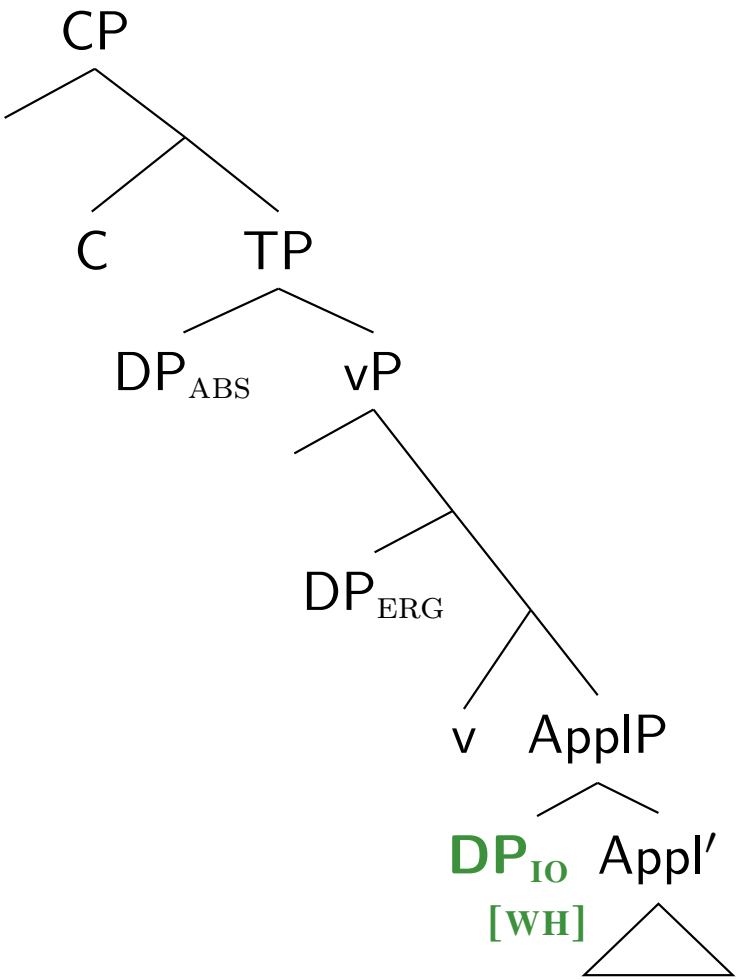

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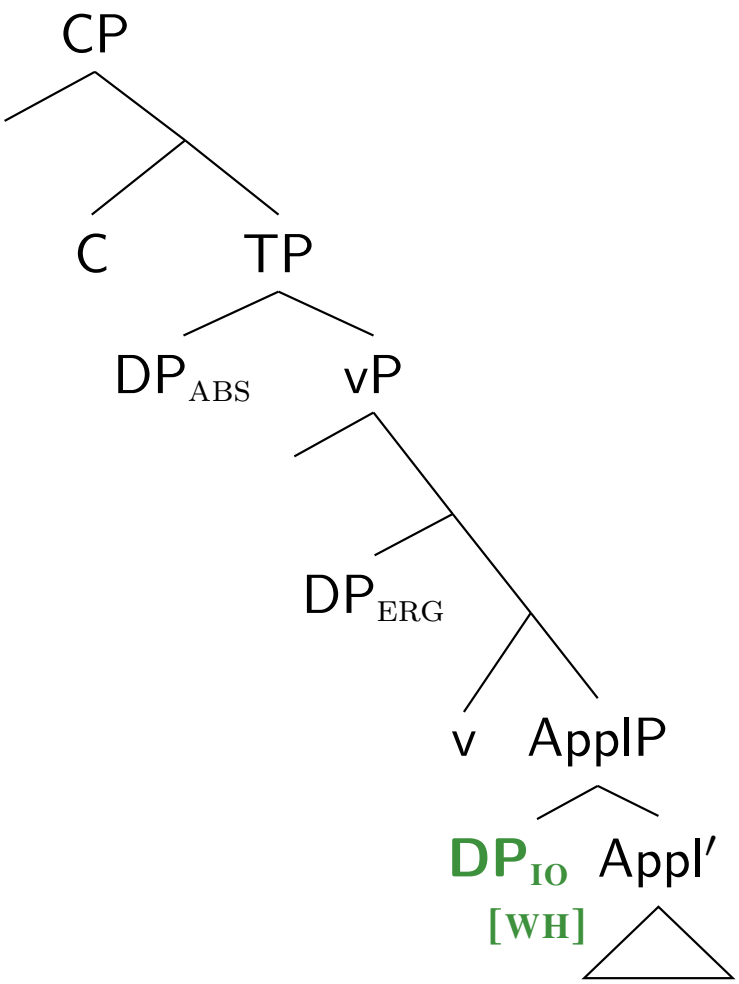

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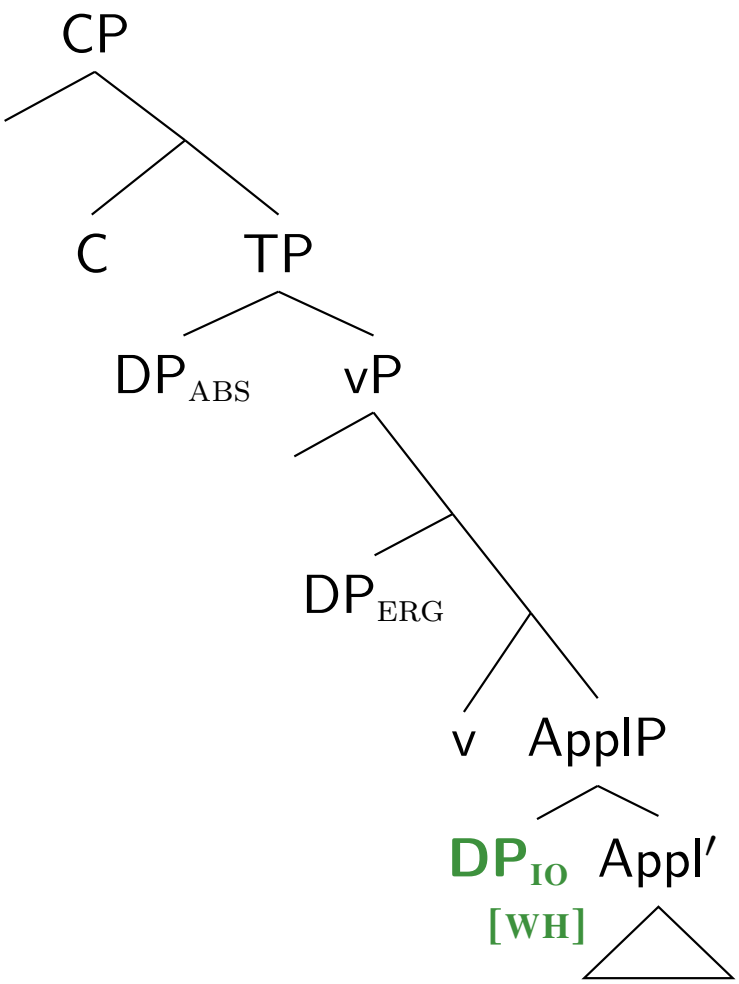

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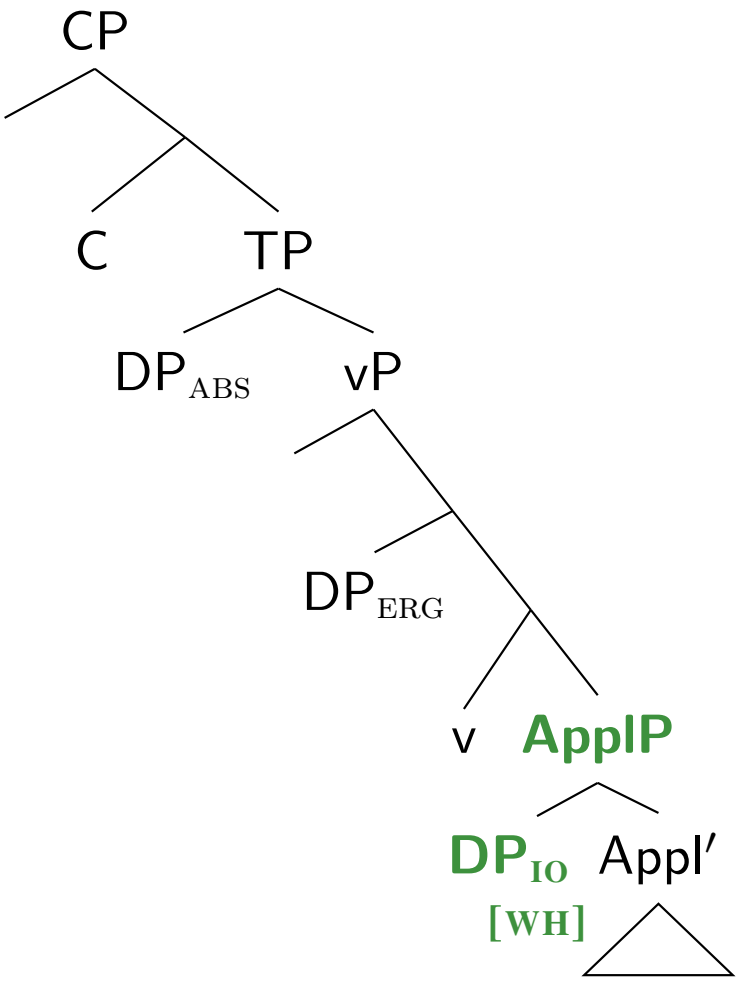

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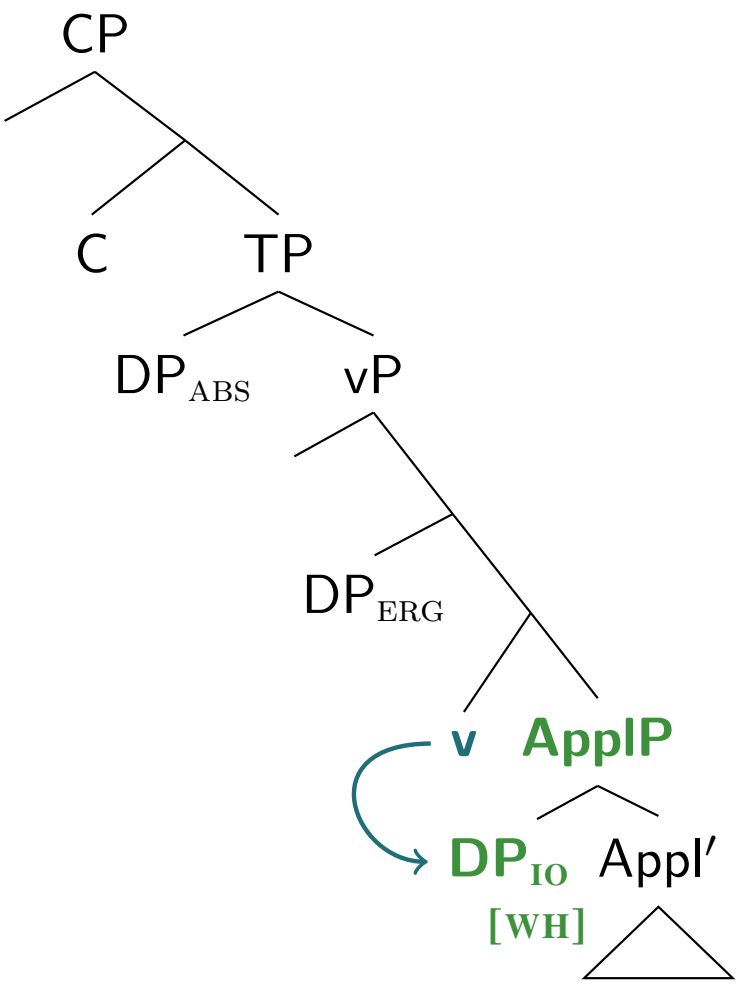

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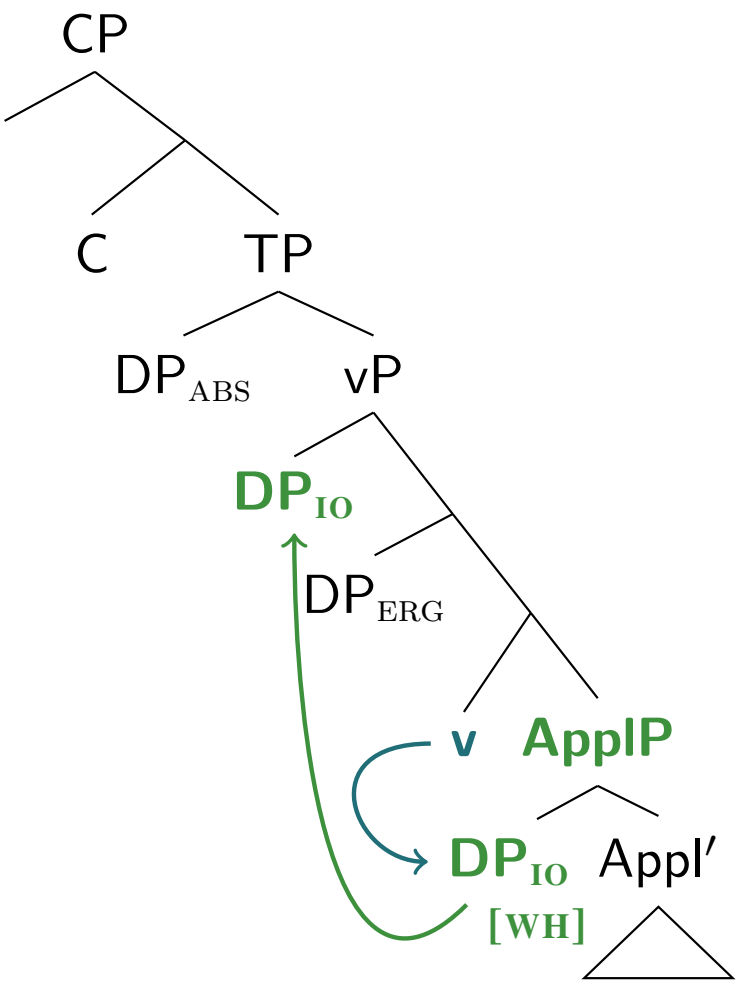

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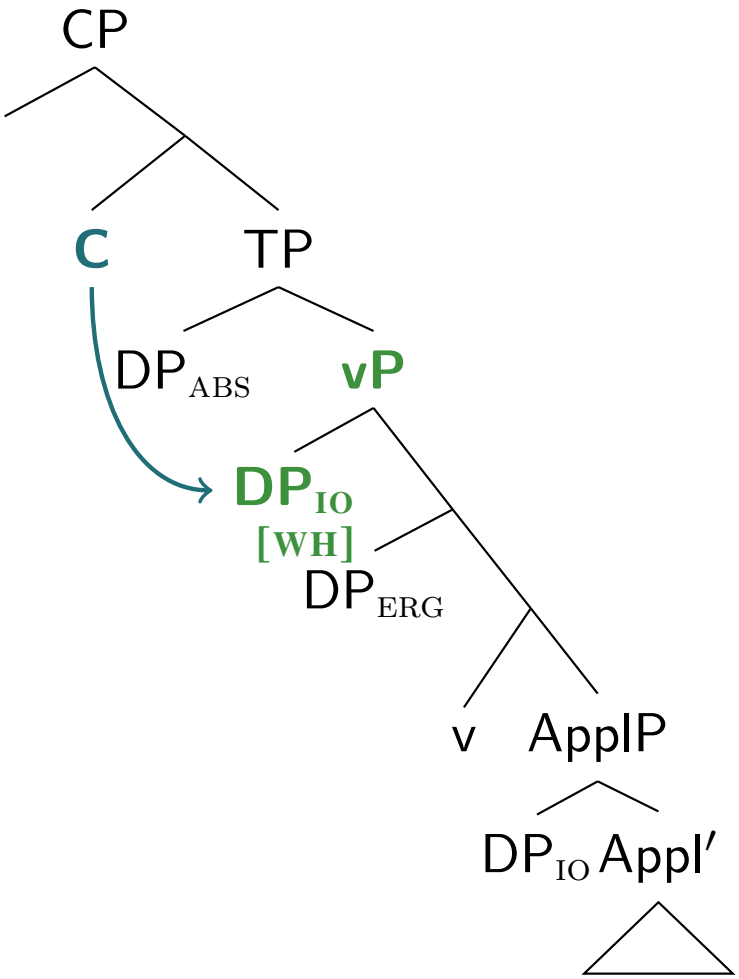
Any argument can be relativized



✓ **ABS**

no phase boundary between C and Spec,TP

$\Rightarrow$ ABS can move

✓ **ERG**

Spec,vP is equidistant with vP phase

$\Rightarrow$ ERG can move

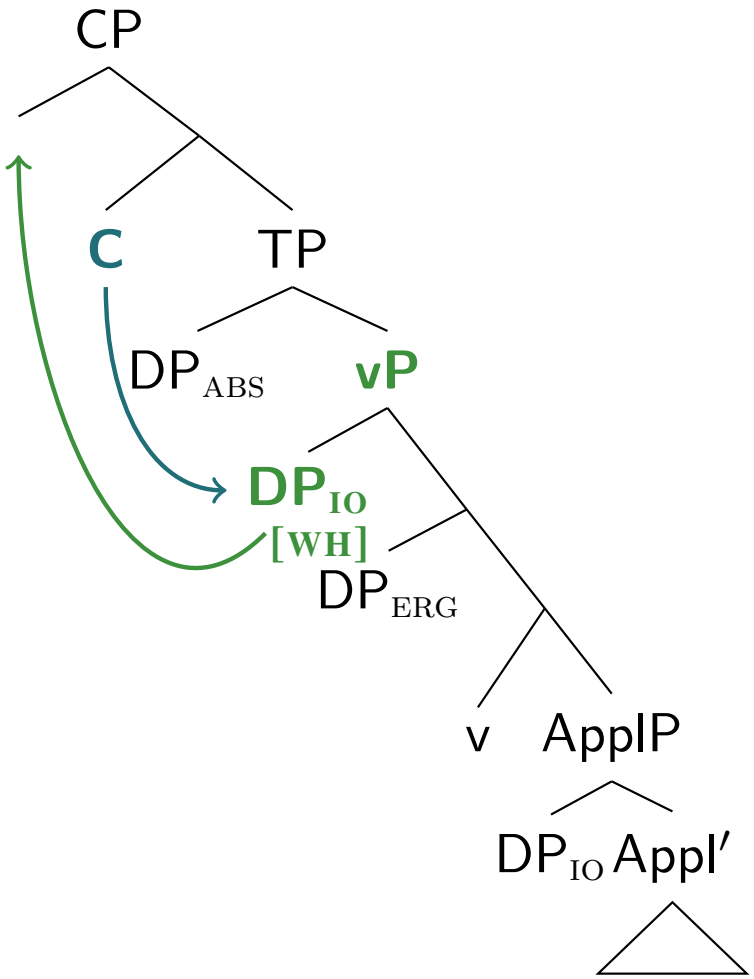
✓ **IO**

ApplP is a phase (McGinnis 2000, 2001)
Spec,ApplP is equidistant with ApplP

$\Rightarrow$ IO can move to Spec,vP

$\rightarrow$ Spec,CP

Any argument can be relativized



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Any argument can be relativized

(Lander 2012:274-276)

Any argument can be relativized

χərbəzew	[	**__ABS**	a-š’	**Ø-**	ə-	bzə-ʁe-r]
watermelon			that-ERG	**WH.ABS-**	3SG.ERG-	cut-PST-ABS

‘the watermelon that he cut’

(Lander 2012:274-276)

Any argument can be relativized

χərbəzew	[	**__ABS**	a-š’	**Ø-**	ə-	bzə-ʁe-r]
watermelon			that-ERG	**WH.ABS-**	3SG.ERG-	cut-PST-ABS

‘the watermelon that he cut’ **✓ABS REL**

(Lander 2012:274-276)

Any argument can be relativized

χərbəzew	[__ABS	a-š’	Ø-	ə-	bzə-ʁe-r]	
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‘the watermelon that he cut’ ✓ABS REL

[txəλə-r	__IO	Ø-	ze-	r-	jə-	tə-ʁe	]	ç̣əfə-r
book-ABS		3ABS-	WH.IO-	DAT-	3SG.ERG-	give-PST		person-ABS

‘the person to whom s/he gave the book’

(Lander 2012:274-276)

Any argument can be relativized

χərbəzew	[__ABS	a-š’	Ø-	ə-	bzə-ʁe-r]	
watermelon		that-ERG	WH.ABS-	3SG.ERG-	cut-PST-ABS	

‘the watermelon that he cut’ ✓ABS REL

[txəλə-r	__IO	Ø-	ze-	r-	jə-	tə-ʁe	] ɕəfə-r
book-ABS		3ABS-	WH.IO-	DAT-	3SG.ERG-	give-PST	person-ABS

‘the person to whom s/he gave the book’ ✓IO REL

(Lander 2012:274-276)

Any argument can be relativized

χərbəzew	[__ABS	a-š’	**Ø-**	ə-	bzə-ʁe-r]	
watermelon		that-ERG	**WH.ABS-**	3SG.ERG-	cut-PST-ABS	

‘the watermelon that he cut’ **✓ABS REL**

[txəλə-r	__IO	Ø-	**ze-**	r-	jə-	tə-ʁe]	ç̣əfə-r
book-ABS		3ABS-	**WH.IO-**	DAT-	3SG.ERG-	give-PST	person-ABS

‘the person to whom s/he gave the book’ **✓IO REL**

č̣’alew	[apč’ə-r	__ERG	Ø-	**zə-**	q^wəta-ʁe-m]
boy	glass-ABS		3ABS-	**WH.ERG-**	break-PST-OBL

‘the boy that broke the glass’

(Lander 2012:274-276)

Any argument can be relativized

χərbəzew	[__ABS	a-š’	**Ø-**	ə-	bzə-ʁe-r]	
watermelon		that-ERG	**WH.ABS-**	3SG.ERG-	cut-PST-ABS	

‘the watermelon that he cut’ **✓ABS REL**

[txəλə-r	__IO	Ø-	**ze-**	r-	jə-	tə-ʁe]	ç̣əfə-r
book-ABS		3ABS-	**WH.IO-**	DAT-	3SG.ERG-	give-PST	person-ABS

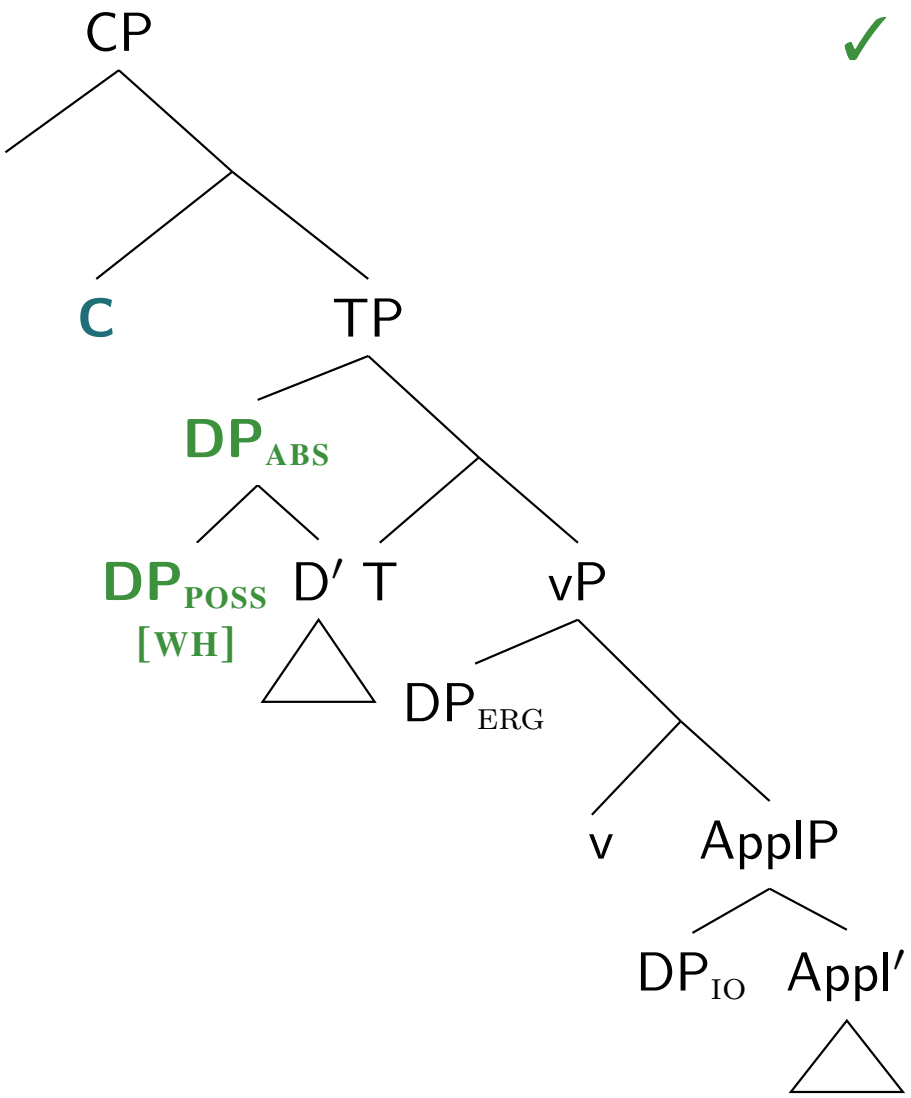
‘the person to whom s/he gave the book’ **✓IO REL**

č̣’alew	[apč’ə-r	__ERG	Ø-	**zə-**	qʷəta-ʁe-m]	
boy	glass-ABS		3ABS-	**WH.ERG-**	break-PST-OBL	

‘the boy that broke the glass’ **✓ERG REL**

(Lander 2012:274-276)

Phase edges are opaque: possessor extraction



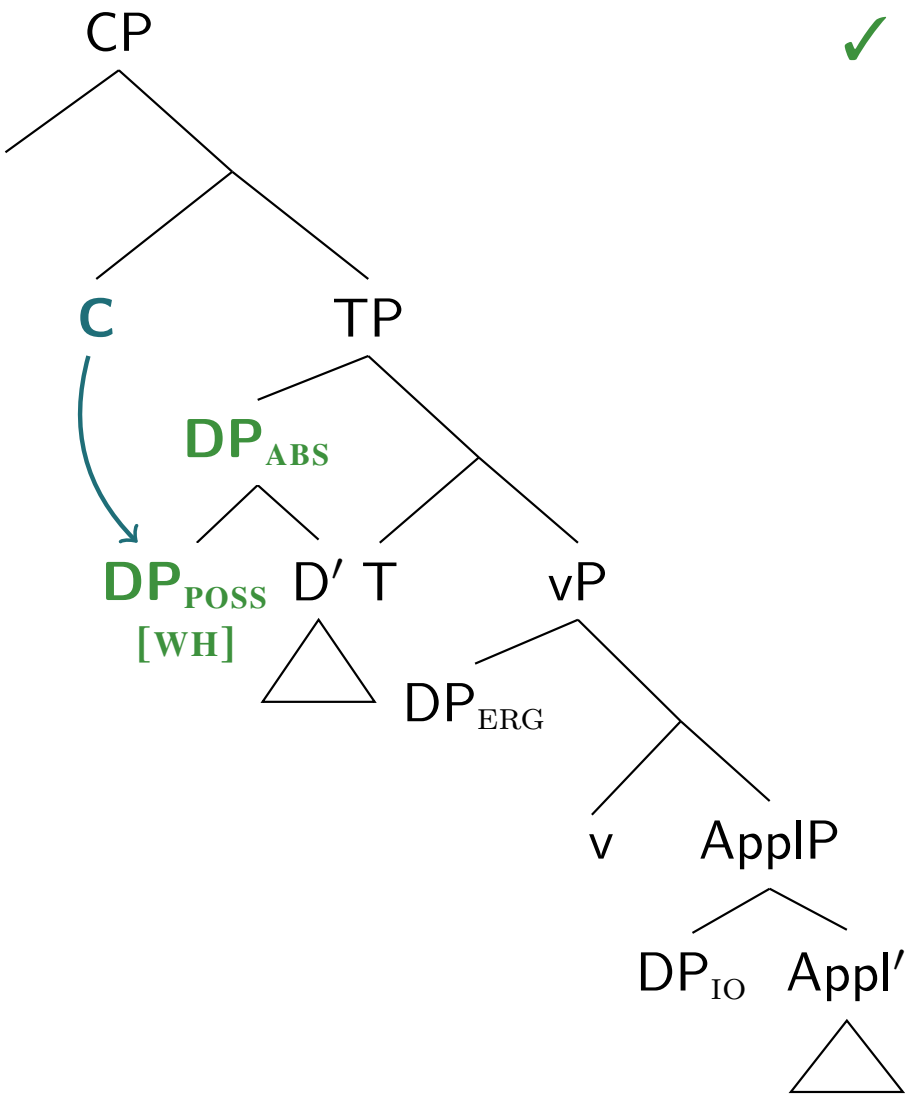
✓ **possessor of ABS**

No phase between C and TP

$\Rightarrow$ ABS and POSS are equidistant

$\Rightarrow$ POSS_{ABS} can move

Phase edges are opaque: possessor extraction



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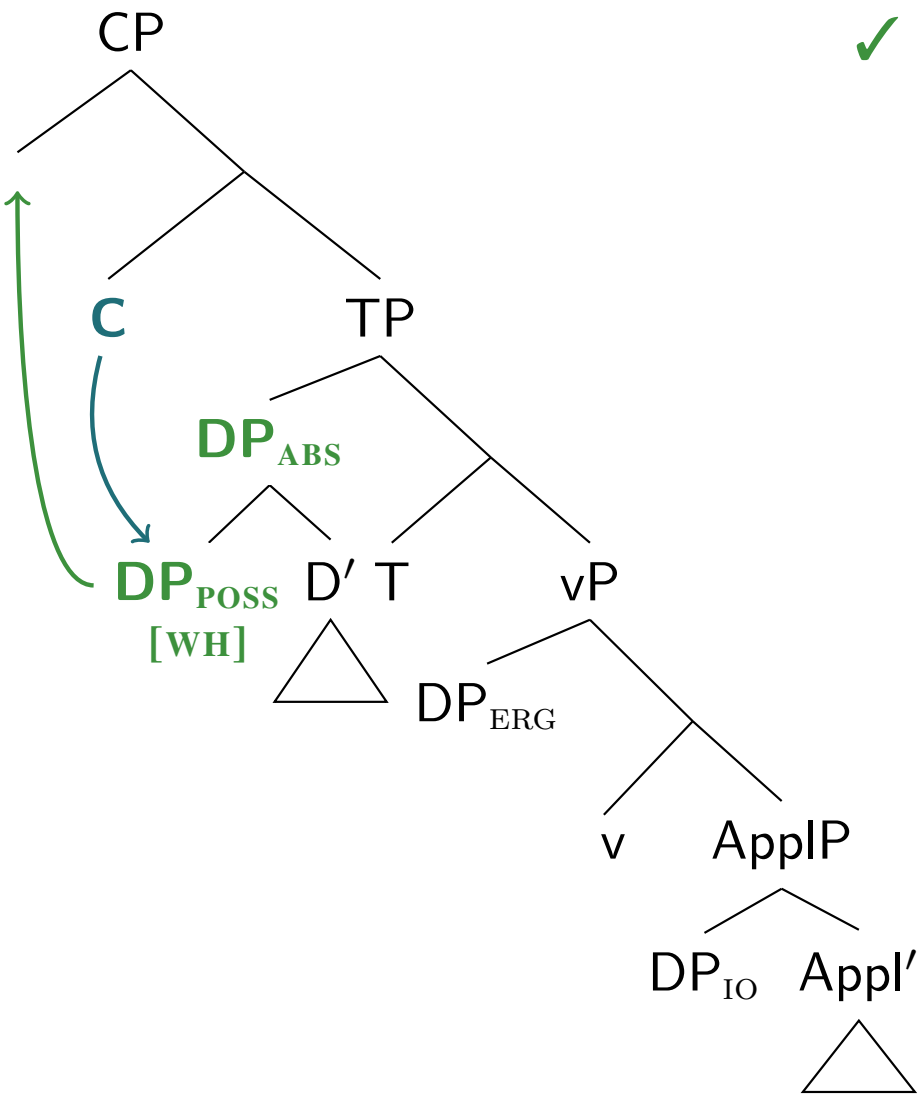

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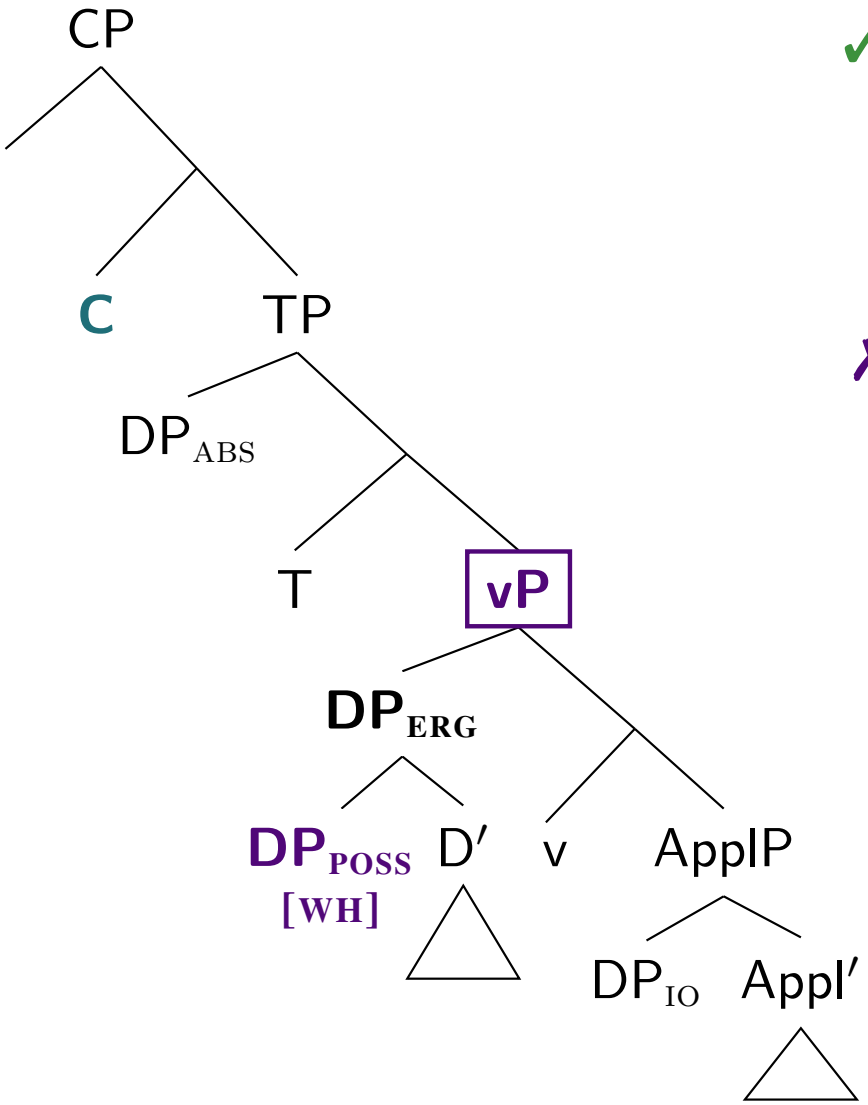


✓ **possessor of ABS**

No phase between C and TP

⇒ ABS and POSS are equidistant

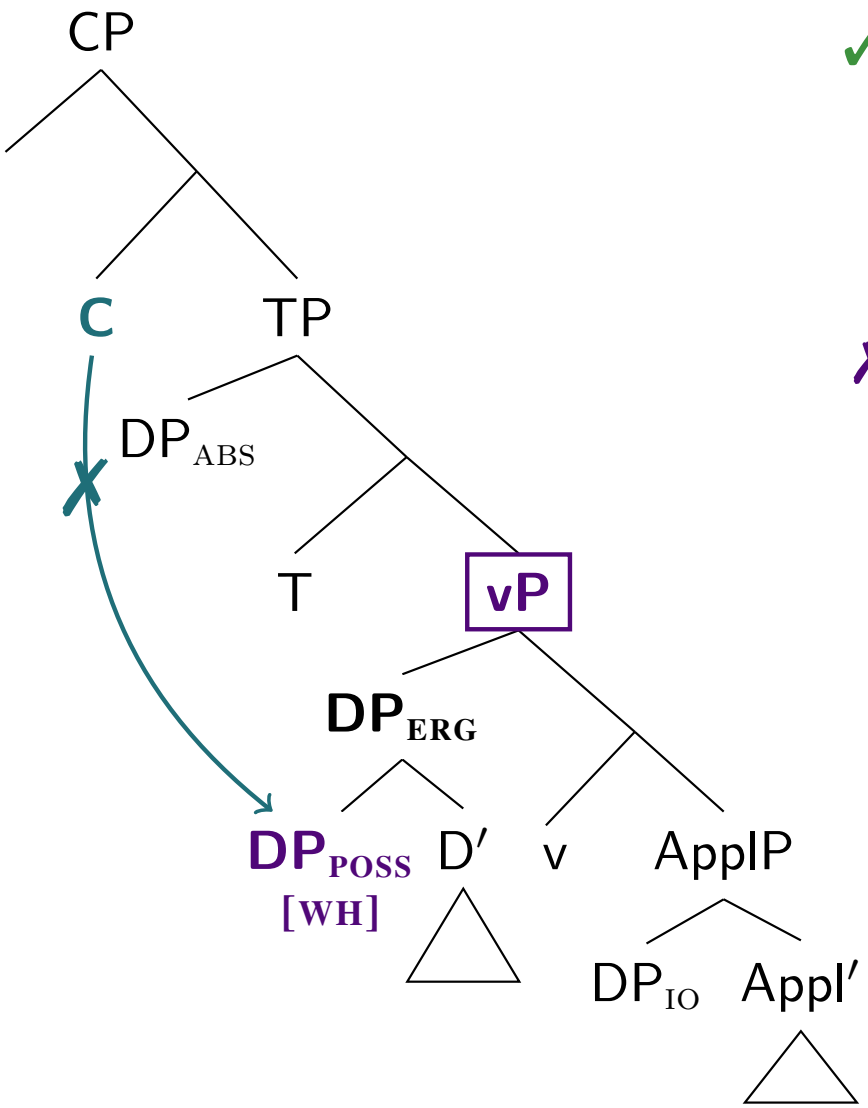
⇒ POSS_{ABS} can move

✗ **possessor of ERG**

vP is closer to C than POSS

⇒ POSS_{ERG} cannot move

Phase edges are opaque: possessor extraction



✓ **possessor of ABS**

No phase between C and TP

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vP is closer to C than POSS

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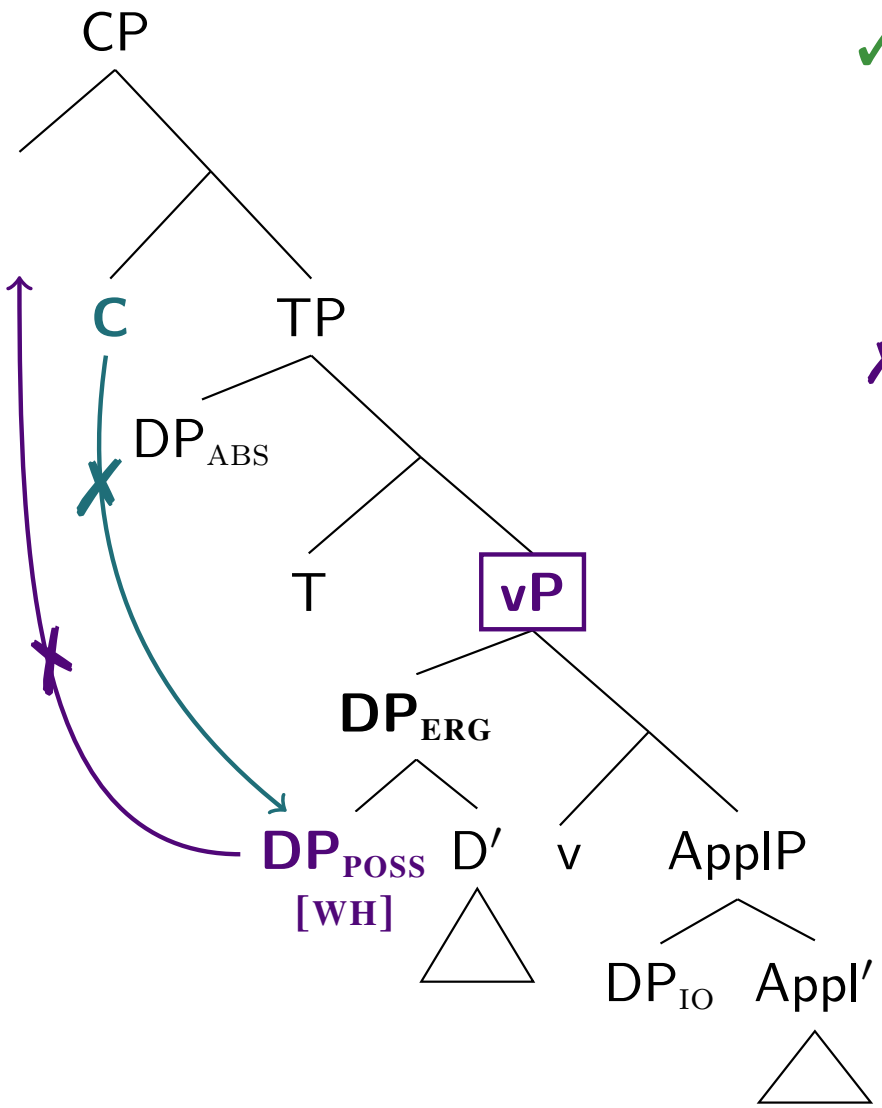
Phase edges are opaque: possessor extraction



✓ **possessor of ABS**

No phase between C and TP

⇒ ABS and POSS are equidistant

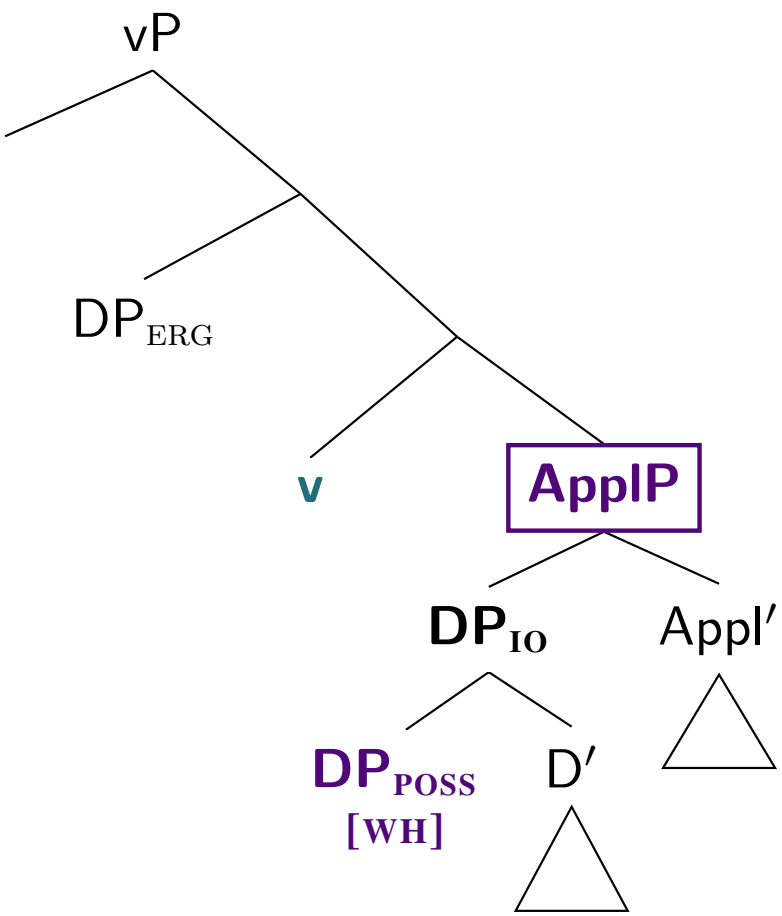
⇒ POSS_{ABS} can move

✗ **possessor of ERG**

vP is closer to C than POSS

⇒ POSS_{ERG} cannot move

Phase edges are opaque: possessor extraction



✓ **possessor of ABS**

No phase between C and TP

⇒ ABS and POSS are equidistant

⇒ POSS$_{\text{ABS}}$ can move

✗ **possessor of ERG**

vP is closer to C than POSS

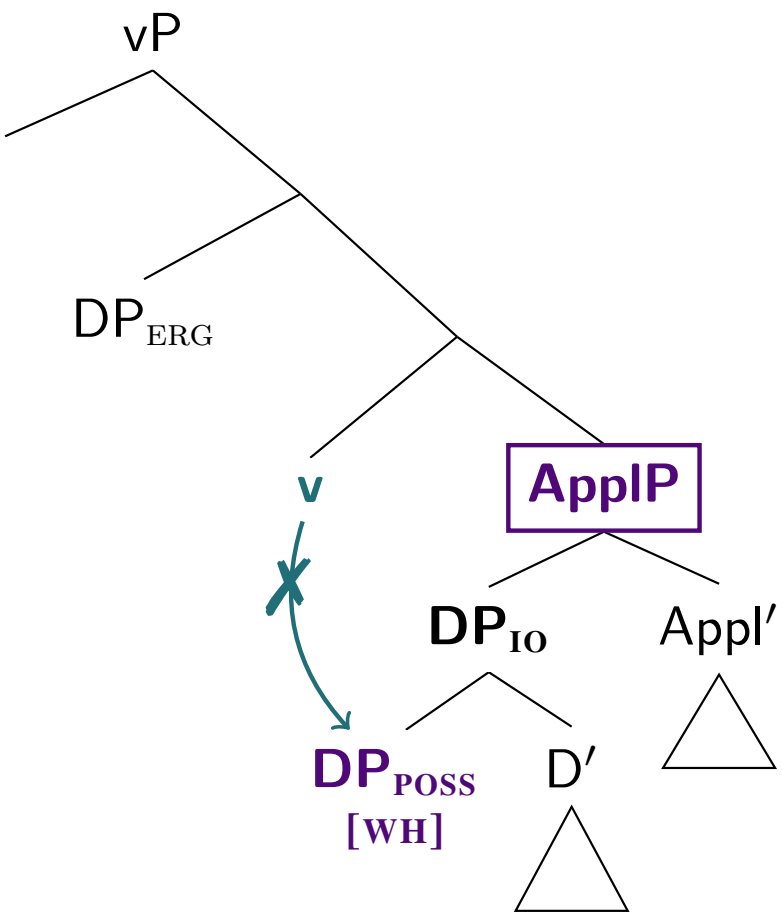
⇒ POSS$_{\text{ERG}}$ cannot move

✗ **possessor of IO**

ApplP is closer to v than POSS

⇒ POSS$_{\text{IO}}$ cannot move

Phase edges are opaque: possessor extraction



✓ **possessor of ABS**

No phase between C and TP

⇒ ABS and POSS are equidistant

⇒ POSS$_{\text{ABS}}$ can move

✗ **possessor of ERG**

vP is closer to C than POSS

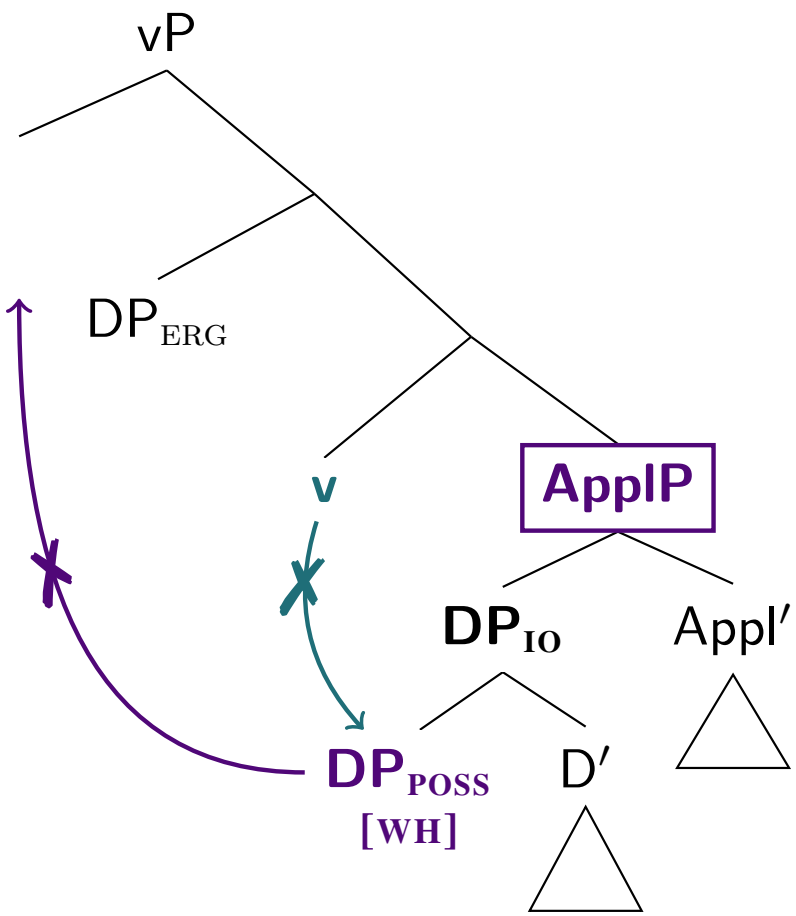
⇒ POSS$_{\text{ERG}}$ cannot move

✗ **possessor of IO**

ApplP is closer to v than POSS

⇒ POSS$_{\text{IO}}$ cannot move

Phase edges are opaque: possessor extraction



✓ **possessor of ABS**

No phase between C and TP

⇒ ABS and POSS are equidistant

⇒ POSS$_{\text{ABS}}$ can move

✗ **possessor of ERG**

vP is closer to C than POSS

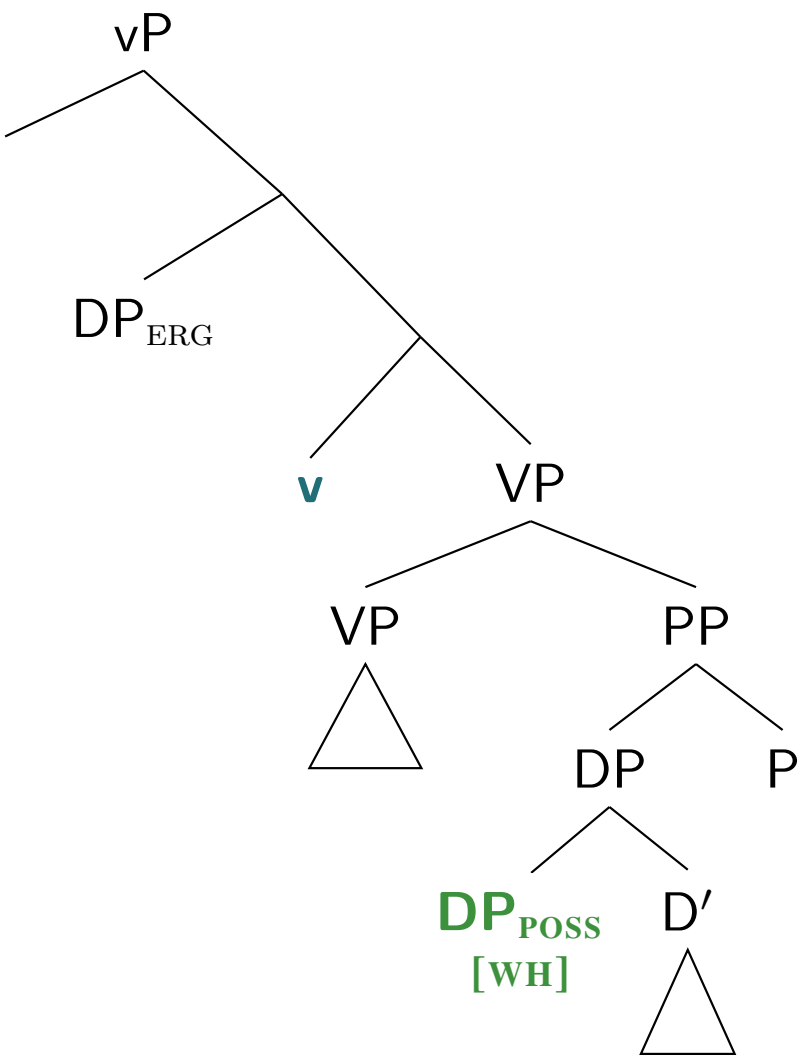
⇒ POSS$_{\text{ERG}}$ cannot move

✗ **possessor of IO**

ApplP is closer to v than POSS

⇒ POSS$_{\text{IO}}$ cannot move

Phase edges are opaque: possessor extraction



✓ **possessor of ABS**

No phase between C and TP

⇒ ABS and POSS are equidistant

⇒ POSS_{ABS} can move

✗ **possessor of ERG**

vP is closer to C than POSS

⇒ POSS_{ERG} cannot move

✗ **possessor of IO**

ApplP is closer to v than POSS

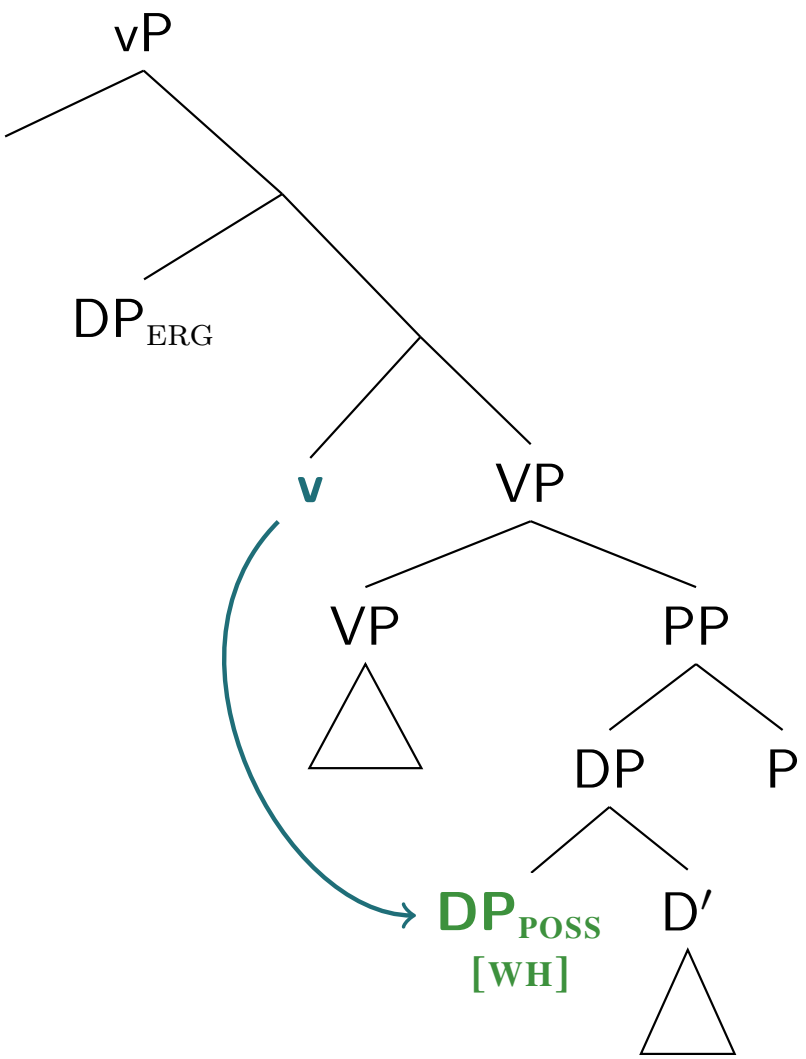
⇒ POSS_{IO} cannot move

✓ **possessor of PP complement!**

PP is not at a phase edge

⇒ v can agree with POSS_{PP}

Phase edges are opaque: possessor extraction



✓ **possessor of ABS**

No phase between C and TP

⇒ ABS and POSS are equidistant

⇒ POSS_{ABS} can move

✗ **possessor of ERG**

vP is closer to C than POSS

⇒ POSS_{ERG} cannot move

✗ **possessor of IO**

ApplP is closer to v than POSS

⇒ POSS_{IO} cannot move

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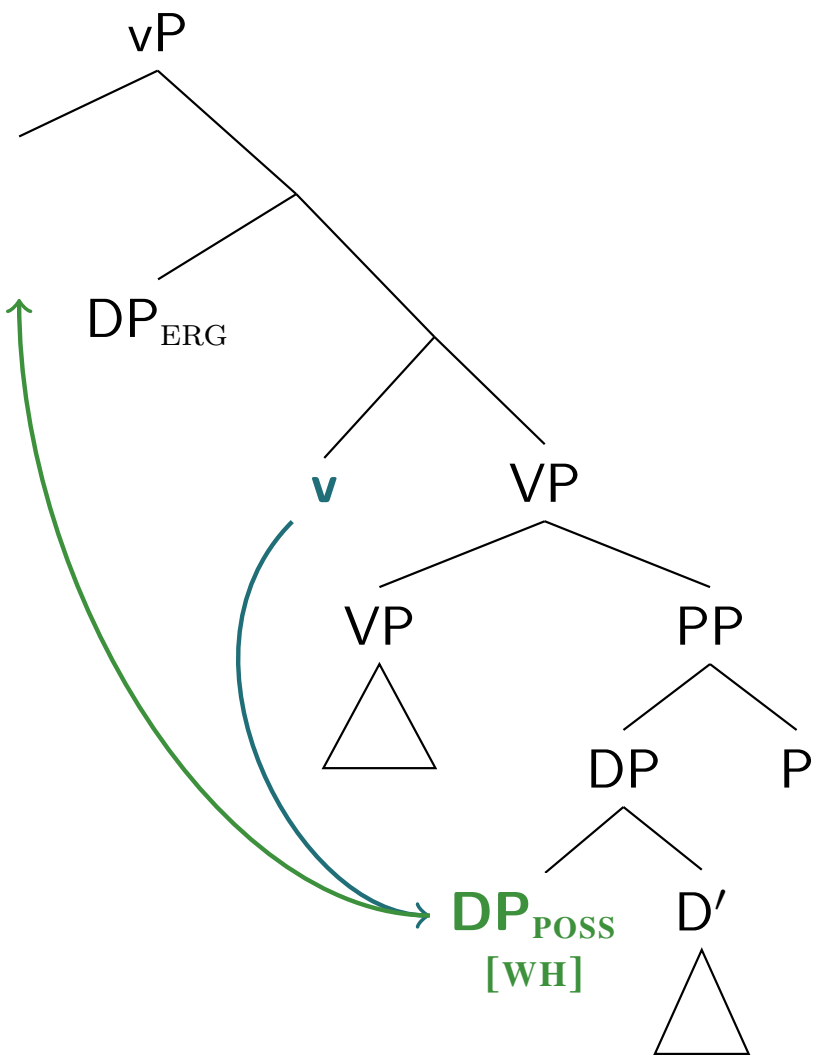
Phase edges are opaque: possessor extraction



✓ **possessor of ABS**

No phase between C and TP

⇒ ABS and POSS are equidistant

⇒ POSS_{ABS} can move

✗ **possessor of ERG**

vP is closer to C than POSS

⇒ POSS_{ERG} cannot move

✗ **possessor of IO**

ApplP is closer to v than POSS

⇒ POSS_{IO} cannot move

✓ **possessor of PP complement!**

PP is not at a phase edge

⇒ v can agree with POSS_{PP}

ABS external argument is transparent for subextraction

ŝʷəzewᵢ	[t_i	z-	jəpŝaŝe	](ABS)	daxew	Ø-	qaŝʷerer
woman		WH.POSS-	girl		well	3ABS-	dance.DYN.ABS

'the woman whose daughter dances well'

ABS internal argument is transparent for subextraction

ŝʷəzewᵢ	[t_i	**zə-**	qʷe]**(ABS)**	hapsem
woman		**WH.POSS-**	son	prison.OBL

Ø- Ø-č̣-a-ʒaʁe-r

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

'the woman whose son they threw in jail'

Possessor of ERG or IO cannot be relativized directly

* Op$_i$ [t_i **z-**jə-č̣'ale **](ERG)** daxew wered(ABS)

WH.POSS-ALIEN-boy well song

Ø- q- **ə-** ʔ^{w}erer

3ABS- DIR- **3SG.ERG-** sing.DYN.ABS

'the one whose son sings well'

Possessor of ERG or IO cannot be relativized directly

POSS WH-AGREEMENT

*	Op_i	[t_i	**z-**jə-č̣'ale	**](ERG)**	daxew	wered(ABS)
			WH.POSS-ALIEN-boy		well	song
Ø-	q-	**ə-**	ʔ^{w}erer			
3ABS-	DIR-	**3SG.ERG-**	sing.DYN.ABS			

'the one whose son sings well'

Possessor of ERG or IO cannot be relativized directly

POSS WH-AGREEMENT

* Op$_i$ [t_i **z-**jə-č̣'ale]**(ERG)** daxew wered(ABS)

WH.POSS-ALIEN-boy well song

Ø- q- **ə-** ʔ^{w}erer

3ABS- DIR- **3SG.ERG-** sing.DYN.ABS

*** REGULAR φ-AGREEMENT**

'the one whose son sings well'

Possessor of ERG or IO cannot be relativized directly

Op_i	[t_i **z-**jə-č̣'ale		**](ERG)**	daxew	wered(ABS)
	WH.POSS-ALIEN-boy			well	song
Ø-	qe-	**zə-**	ʔʷerer		
3ABS-	DIR-	**WH.ERG-**	sing.DYN.ABS		

POSS WH-AGREEMENT

*	Op_i	[t_i **z-**jə-č̣'ale	**](ERG)**	daxew	wered(ABS)	
		WH.POSS-ALIEN-boy		well	song	
Ø-	q-	**ə-**	ʔʷerer			
3ABS-	DIR-	**3SG.ERG-**	sing.DYN.ABS			

*** REGULAR φ-AGREEMENT**

'the one whose son sings well'

Possessor of ERG or IO cannot be relativized directly

POSS WH-AGREEMENT

Op_i	[t_i **z-**jə-č̣'ale		**](ERG)**	daxew	wered(ABS)
	WH.POSS-ALIEN-boy			well	song
Ø-	qe-	**zə-**	ʔʷerer		
3ABS-	DIR-	**WH.ERG-**	sing.DYN.ABS		

POSS WH-AGREEMENT

*	Op_i	[t_i **z-**jə-č̣'ale	**](ERG)**	daxew	wered(ABS)	
		WH.POSS-ALIEN-boy		well	song	
Ø-	q-	**ə-**	ʔʷerer			
3ABS-	DIR-	**3SG.ERG-**	sing.DYN.ABS			

*** REGULAR φ-AGREEMENT**

'the one whose son sings well'

Possessor of ERG or IO cannot be relativized directly

POSS WH-AGREEMENT

Op_i	[t_i	**z-**jə-č̣'ale	**](ERG)**	daxew	wered(ABS)
		WH.POSS-ALIEN-boy		well	song

Ø-	qe-	**zə-**	ʔʷerer
3ABS-	DIR-	**WH.ERG-**	sing.DYN.ABS

ERG WH-AGREEMENT

POSS WH-AGREEMENT

*	Op_i	[t_i	**z-**jə-č̣'ale	**](ERG)**	daxew	wered(ABS)
			WH.POSS-ALIEN-boy		well	song

Ø-	q-	**ə-**	ʔʷerer
3ABS-	DIR-	**3SG.ERG-**	sing.DYN.ABS

*** REGULAR φ-AGREEMENT**

'the one whose son sings well'

Possessor of ERG or IO cannot be relativized directly

POSS WH-AGREEMENT

Op$_i$	[t_i **z-**jə-č̣'ale	**](ERG)**	daxew	wered(ABS)
	WH.POSS-ALIEN-boy		well	song

Ø-	qe-	**zə-**	ʔʷerer
3ABS-	DIR-	**WH.ERG-**	sing.DYN.ABS

ERG WH-AGREEMENT

2 WH-MARKERS

POSS WH-AGREEMENT

*	Op$_i$	[t_i **z-**jə-č̣'ale	**](ERG)**	daxew	wered(ABS)
		WH.POSS-ALIEN-boy		well	song

Ø-	q-	**ə-**	ʔʷerer
3ABS-	DIR-	**3SG.ERG-**	sing.DYN.ABS

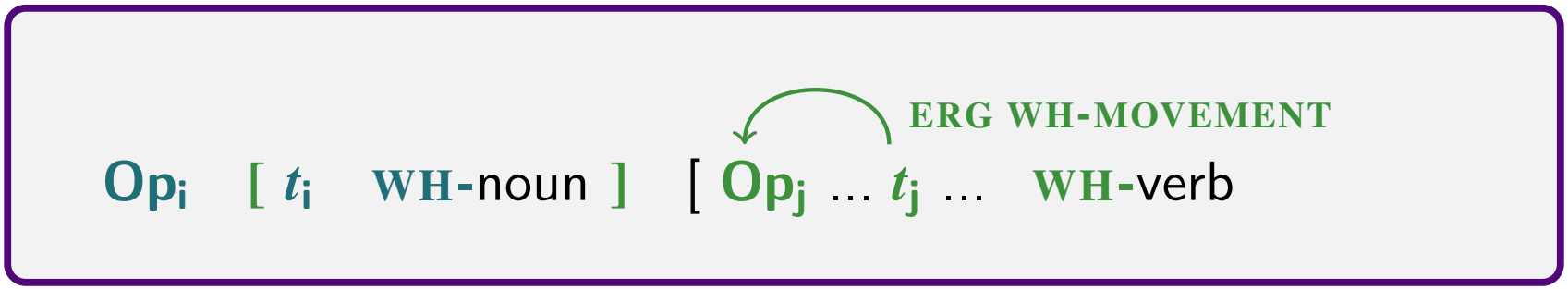
*** REGULAR φ-AGREEMENT**

'the one whose son sings well'

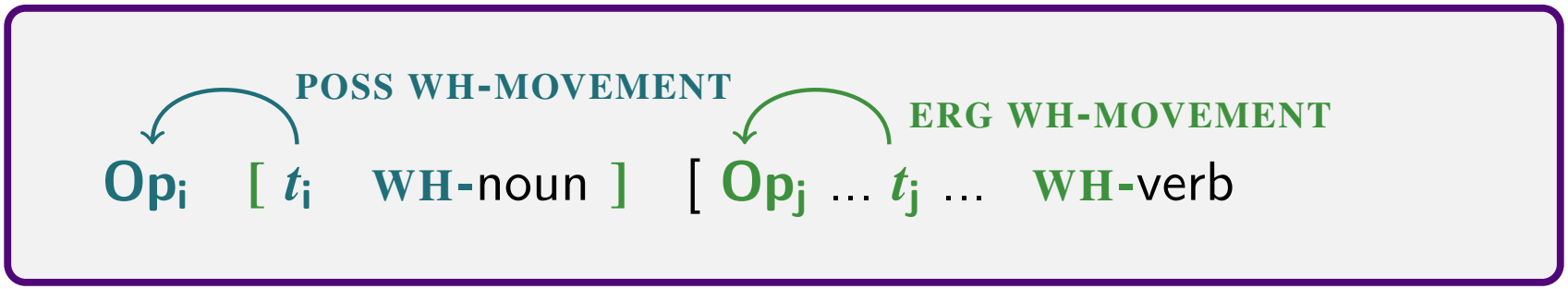
Multiple wh-agreement as a pseudocleft

Op$_i$ [t_i **WH-**noun] [**Op$_j$** ... t_j ... **WH-**verb

Multiple wh-agreement as a pseudocleft



Multiple wh-agreement as a pseudocleft



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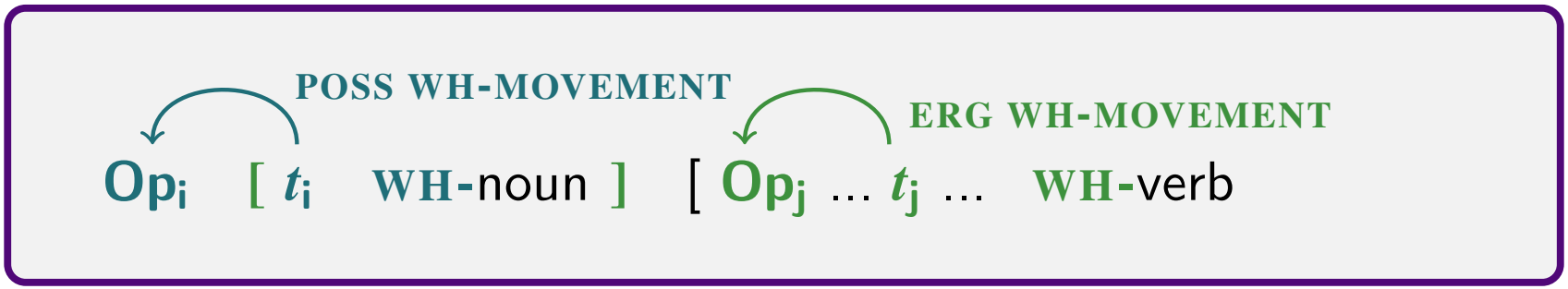

Evidence: case connectivity effects (Ershova 2021, 2024)

Possessor of ERG cannot be extracted

DIRECT RELATIVIZATION:

* Op$_i$	[t_i	z-	jəǯ'ale](ERG)	daxew	wered(ABS)
		WH.POSS-	boy	well	song
Ø-	q-	ə-	ʔ^{w}erer		
3ABS-	DIR-	3SG.ERG-	sing.DYN.ABS		

'the one whose son sings well'

Possessor of ERG cannot be extracted

DIRECT RELATIVIZATION:

* Op$_i$	[t_i	z-	jəč̣'ale	](ERG)	daxew	wered(ABS)
		WH.POSS-	boy		well	song
Ø-	q-	ə-	ʔ^{w}erer			
3ABS-	DIR-	3SG.ERG-	sing.DYN.ABS			

REGULAR φ-AGREEMENT

'the one whose son sings well'

Possessor of ERG cannot be extracted

PSEUDOCLEFT REPAIR:

DIRECT RELATIVIZATION:

* Op$_i$	[t_i	**z-**	jəč̣'ale	**](ERG)**	daxew	wered(ABS)
		WH.POSS-	boy		well	song
Ø-	q-	**ə-**	ʔ^{w}erer			
3ABS-	DIR-	**3SG.ERG-**	sing.DYN.ABS			

REGULAR φ-AGREEMENT

'the one whose son sings well'

Possessor of ERG cannot be extracted

PSEUDOCLEFT REPAIR:

Op$_i$	[t_i	z-	jəč'ale](ABS)	[Op$_j$	t_j	daxew	
		WH.POSS-	boy			well	
wered	Ø-	qe-	zə-	ʔʷerer	]		
song	3ABS-	DIR-	WH.ERG-	sing.DYN.ABS			

DIRECT RELATIVIZATION:

* Op$_i$	[t_i	z-	jəč'ale](ERG)	daxew	wered(ABS)	
		WH.POSS-	boy	well	song	
Ø-	q-	ə-	ʔʷerer			
3ABS-	DIR-	3SG.ERG-	sing.DYN.ABS			

REGULAR φ-AGREEMENT

'the one whose son sings well'

Possessor of ERG cannot be extracted

PSEUDOCLEFT REPAIR:

ERG WH-MOVEMENT

Op$_i$	[t_i	z-	jəč'ale](ABS)	[Op$_j$	t_j	daxew	
		WH.POSS-	boy			well	
wered	Ø-	qe-	zə-	ʔʷerer	]		
song	3ABS-	DIR-	WH.ERG-	sing.DYN.ABS			

DIRECT RELATIVIZATION:

* Op$_i$	[t_i	z-	jəč'ale](ERG)	daxew	wered(ABS)	
		WH.POSS-	boy	well	song	
Ø-	q-	ə-	ʔʷerer			
3ABS-	DIR-	3SG.ERG-	sing.DYN.ABS			

REGULAR φ-AGREEMENT

'the one whose son sings well'

Possessor of ERG cannot be extracted

PSEUDOCLEFT REPAIR:

ERG WH-MOVEMENT

Op$_i$	[t_i	z-	jəč'ale](ABS)	[Op$_j$	t_j	daxew	
		WH.POSS-	boy			well	
wered	Ø-	qe-	zə-	ʔʷerer	]		
song	3ABS-	DIR-	WH.ERG-	sing.DYN.ABS			

ERG WH-AGREEMENT

DIRECT RELATIVIZATION:

* Op$_i$	[t_i	z-	jəč'ale](ERG)	daxew	wered(ABS)		
		WH.POSS-	boy	well	song		
Ø-	q-	ə-	ʔʷerer				
3ABS-	DIR-	3SG.ERG-	sing.DYN.ABS				

REGULAR φ-AGREEMENT

'the one whose son sings well'

Possessor of IO cannot be extracted

DIRECT RELATIVIZATION:

* ŝ^{w}əzew$_{i}$	[t_{i}	**zə-**	q^{w}e	**](IO)**	č̣'elejeʁaǯer
woman		**WH.POSS-**	son		teacher.ABS
Ø-	**Ø-**	je-	c̣ec̣aʁer		
3ABS-	**3SG.IO-**	DAT-	scold.PST.ABS		

'the woman whose son the teacher scolded'

Possessor of IO cannot be extracted

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* ŝʷəzewᵢ	[t_i	zə-	qʷe	](IO)	č̣'elejeʁaǯer
woman		WH.POSS-	son		teacher.ABS
Ø-	Ø-	je-	c̣ec̣aʁer		
3ABS-	3SG.IO-	DAT-	scold.PST.ABS		

REGULAR φ-AGREEMENT

'the woman whose son the teacher scolded'

Possessor of IO cannot be extracted

PSEUDOCLEFT REPAIR:

ŝʷəzewᵢ	[t_i	zə-	qʷe](ABS)	[Op_j	t_j	č̣'elejeʁaǯer	
woman		WH.POSS-	son			teacher.ABS	
Ø-	z-	e-	c̣ec̣aʁer				
3ABS-	WH.IO-	DAT-	scold.PST.ABS				

DIRECT RELATIVIZATION:

* ŝʷəzewᵢ	[t_i	zə-	qʷe](IO)	č̣'elejeʁaǯer	
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REGULAR φ-AGREEMENT

'the woman whose son the teacher scolded'

Possessor of IO cannot be extracted

PSEUDOCLEFT REPAIR:

IO WH-MOVEMENT

ŝʷəzewᵢ	[t_i	zə-	qʷe](ABS)	[Op_j	t_j	č'elejeʁaǯer
woman		WH.POSS-	son			teacher.ABS
Ø-	z-	e-	ċeċaʁer			
3ABS-	WH.IO-	DAT-	scold.PST.ABS			

DIRECT RELATIVIZATION:

* ŝʷəzewᵢ	[t_i	zə-	qʷe](IO)	č'elejeʁaǯer
woman		WH.POSS-	son	teacher.ABS
Ø-	Ø-	je-	ċeċaʁer	
3ABS-	3SG.IO-	DAT-	scold.PST.ABS	

REGULAR φ-AGREEMENT

'the woman whose son the teacher scolded'

Possessor of IO cannot be extracted

PSEUDOCLEFT REPAIR:

IO WH-MOVEMENT

ŝʷəzewᵢ	[t_i	zə-	qʷe](ABS)	[Op_j	t_j	č̣'elejeʁaǯer
woman		WH.POSS-	son			teacher.ABS
Ø-	z-	e-	ċeċaʁer			
3ABS-	WH.IO-	DAT-	scold.PST.ABS			

IO WH-AGREEMENT

DIRECT RELATIVIZATION:

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woman		WH.POSS-	son	teacher.ABS	
Ø-	Ø-	je-	ċeċaʁer		
3ABS-	3SG.IO-	DAT-	scold.PST.ABS		

REGULAR φ-AGREEMENT

'the woman whose son the teacher scolded'

Possessor of PP complement can be extracted!

Op$_i$	**[$_{PP}$**	t_i	**zjə-**wəne	dež' **]**	mezə-r	ʁerjeḳ^{w}e
			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'

Phasehood and relativization: interim summary

Phasehood and relativization: interim summary

- ABS, ERG, and IO arguments can be relativized

Phasehood and relativization: interim summary

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- possessor of ABS and PP complement can be relativized

Phasehood and relativization: interim summary

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Phasehood and relativization: interim summary

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Explanation:

Phasehood and relativization: interim summary

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Explanation:

- ERG and IO are merged at phase edges

Phasehood and relativization: interim summary

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Explanation:

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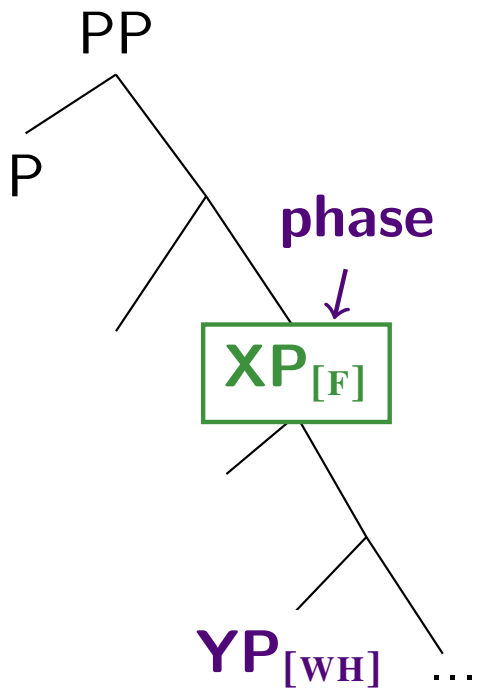
because the phase intervenes for Agree

Evidence: phases are 'unlocked' by Agree

Result of phase 'unlocking':

Long-distance movement is grammatical when clausebound movement isn't!

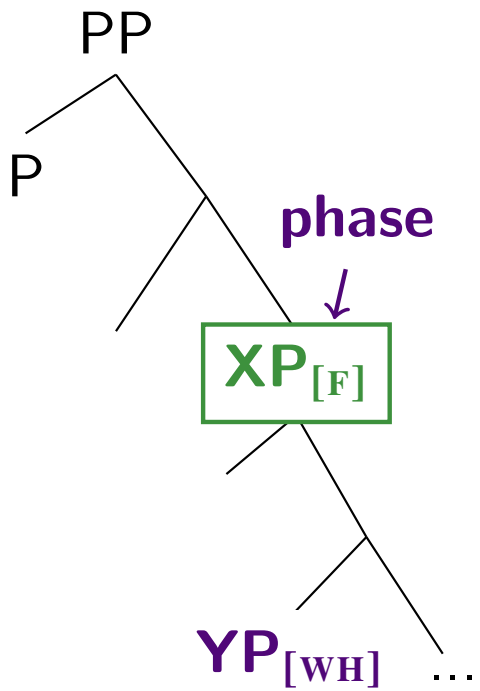
Prediction of Agree-based intervention



(Richards 1998; Rackowski and Richards 2005; van Urk and Richards 2015; Halpert 2019; Ershova 2024)

Prediction of Agree-based intervention

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



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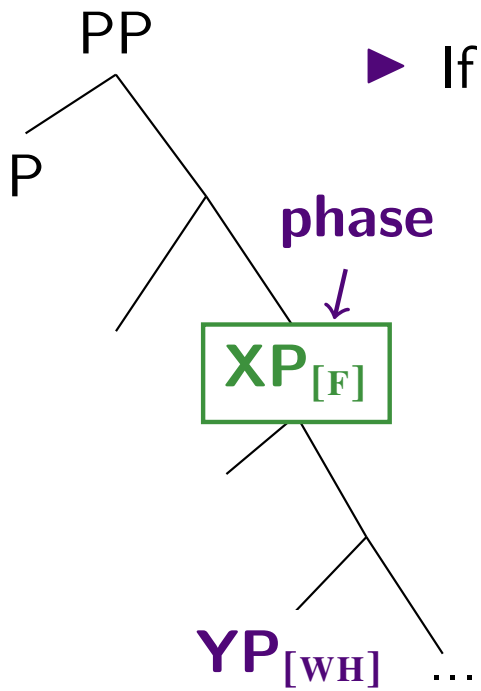

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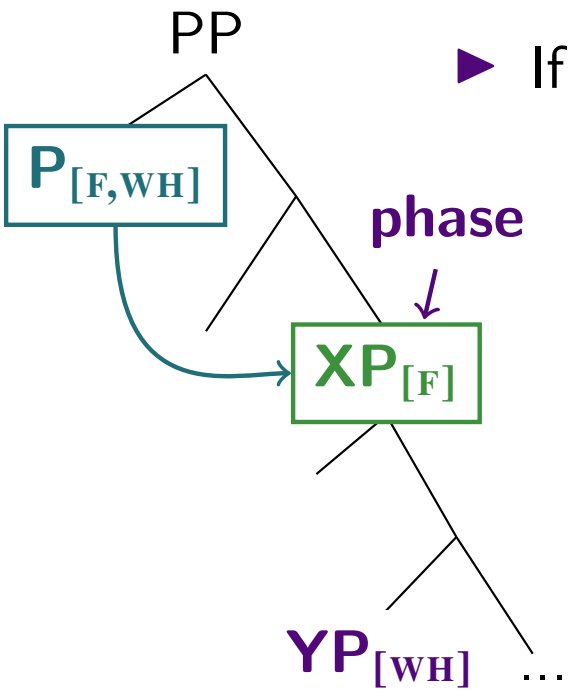

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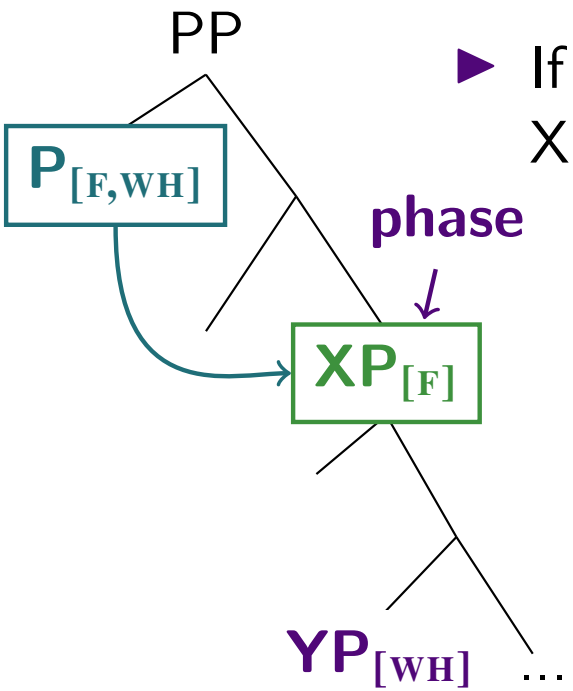

- All **phases** are potential **goals**
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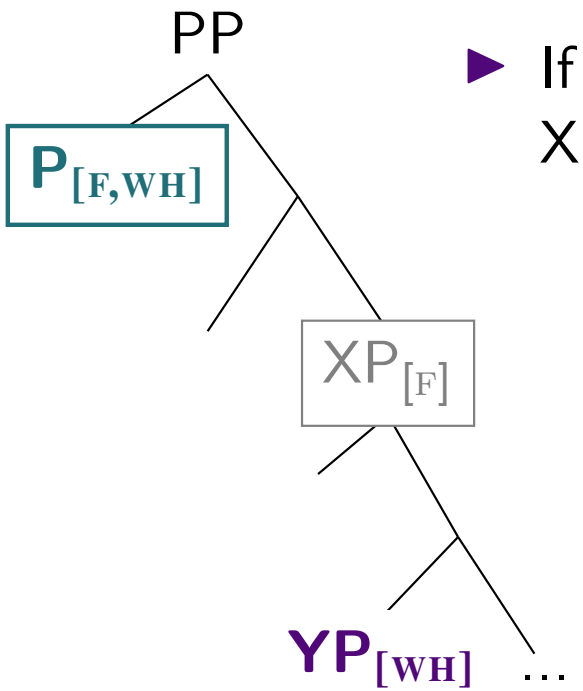
(Richards 1998; Rackowski and Richards 2005; van Urk and Richards 2015; Halpert 2019; Ershova 2024)

Prediction of Agree-based intervention



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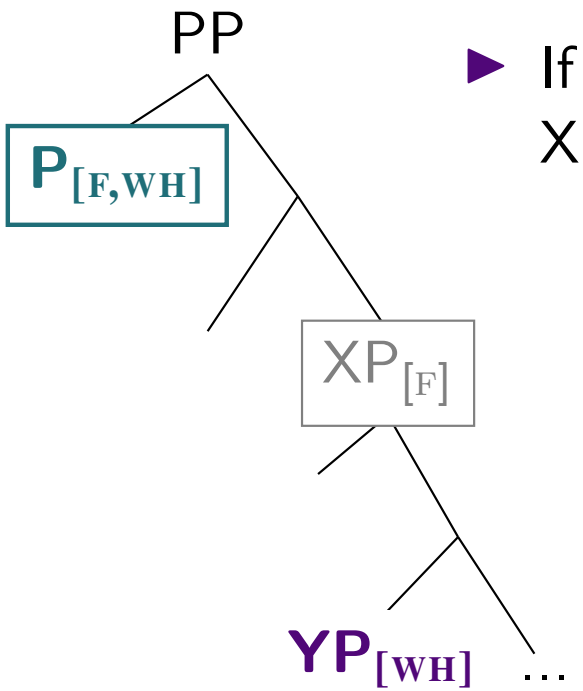

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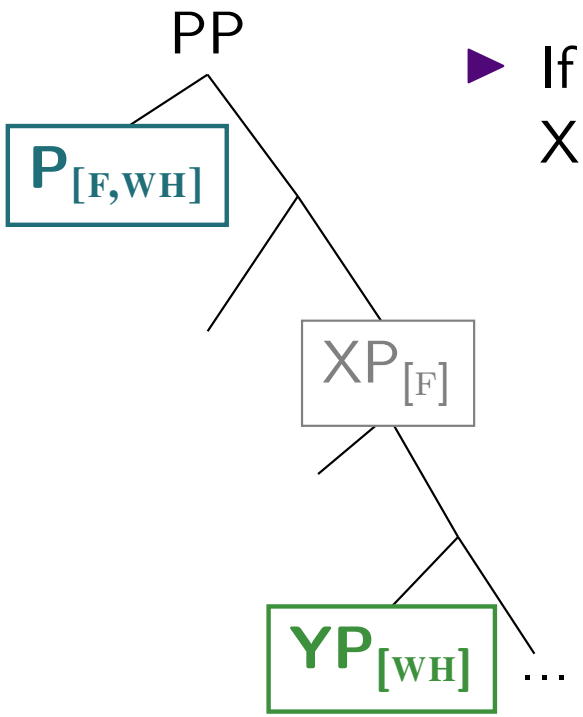

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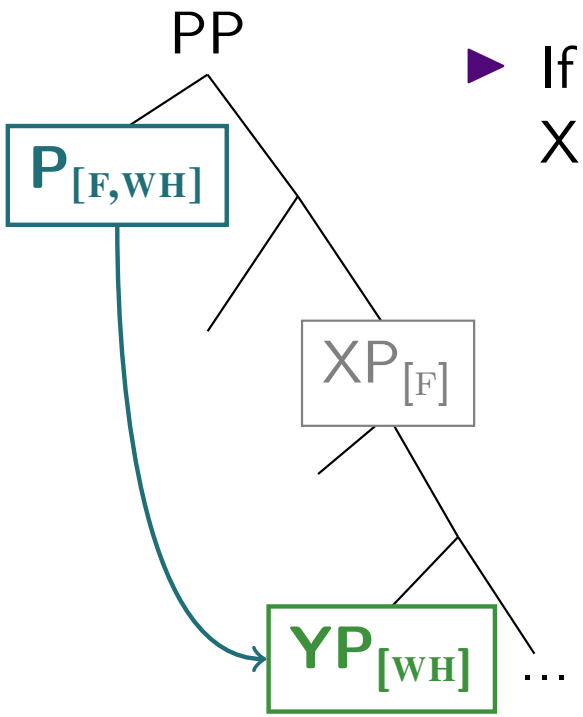

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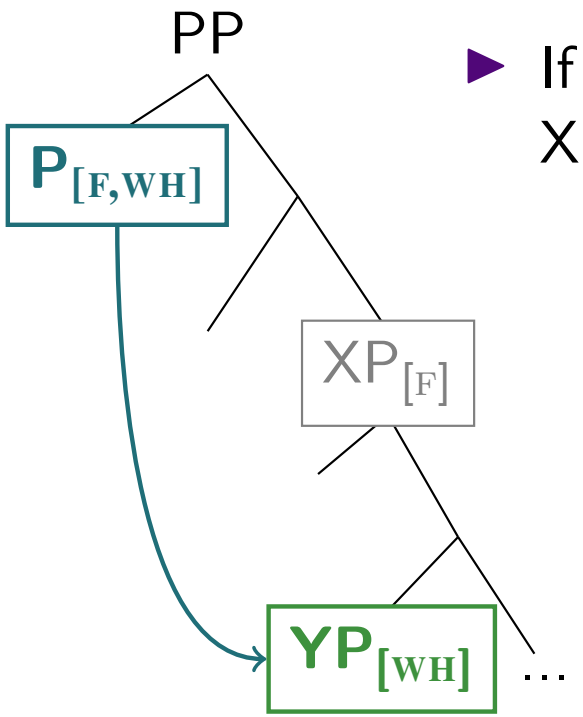

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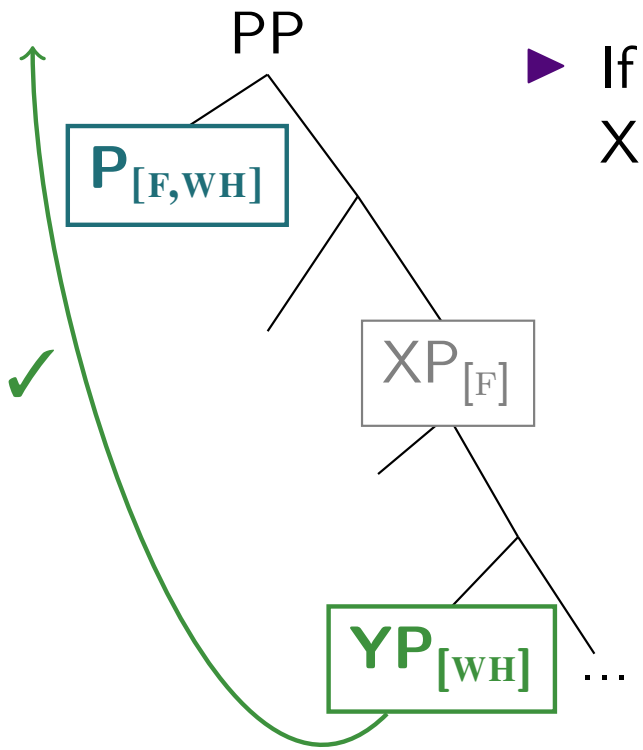

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Unlocking phases by Agree

Prediction:

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A phase can become transparent if it independently agrees with the probe.

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Confirmed by long-distance possessor extraction:

Unlocking phases by Agree

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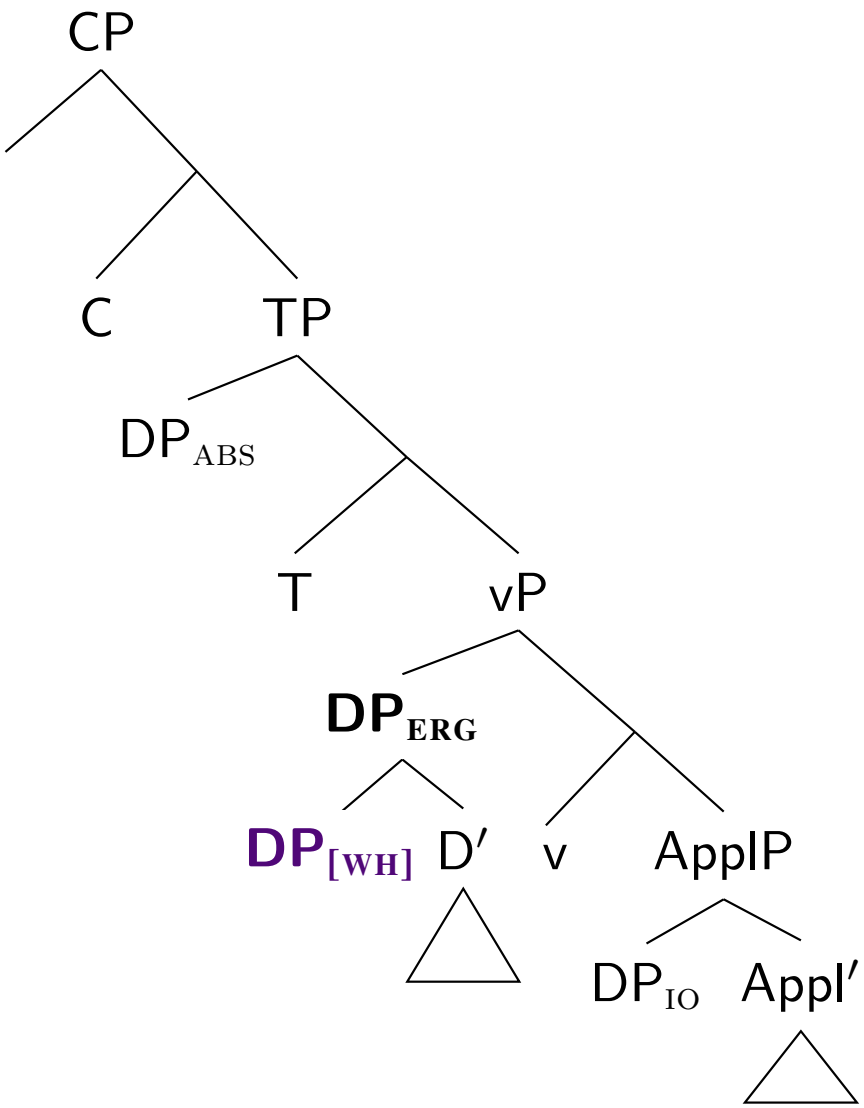
Confirmed by long-distance possessor extraction:

Possessor of ERG and IO can $\bar{\text{A}}$-move
if embedded C agrees with v and Appl **before** $\bar{\text{A}}$-probing.

C agrees with v and Appl ⇒ possessors can move



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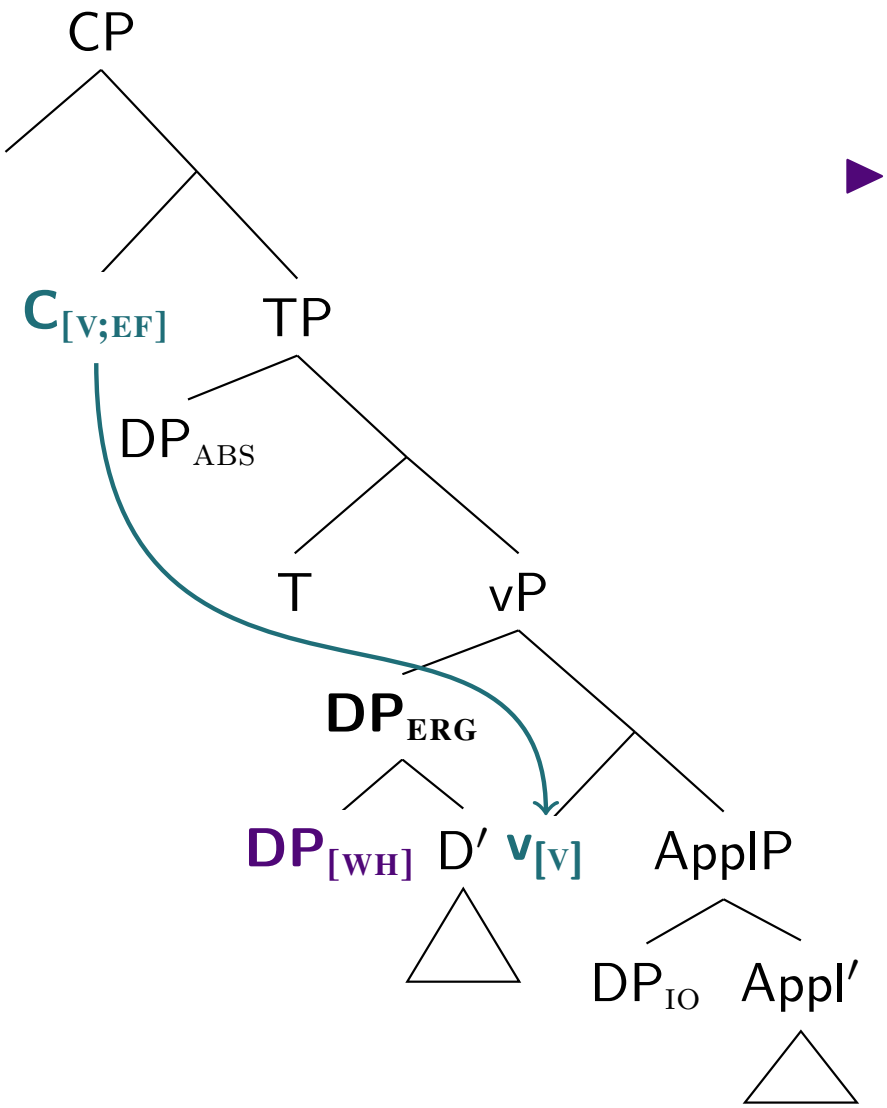

- C agrees with v in $[\mathrm{V}]$

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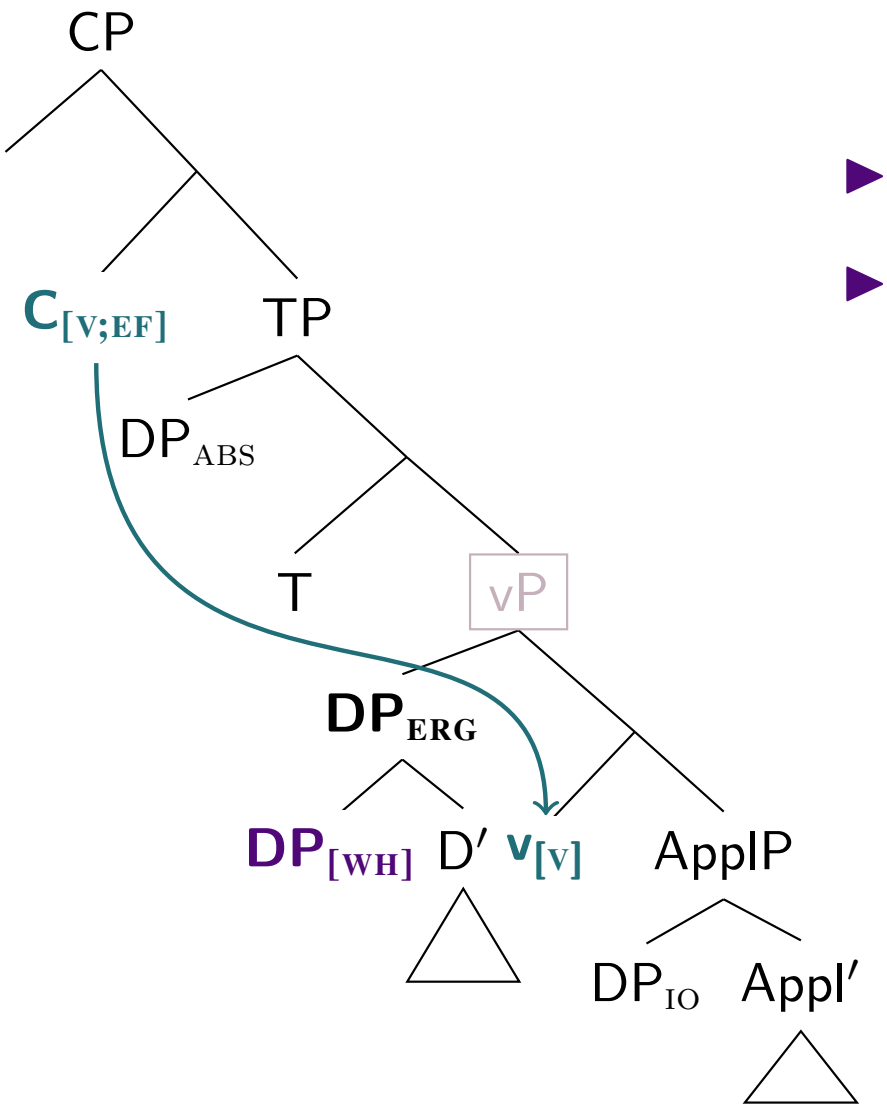
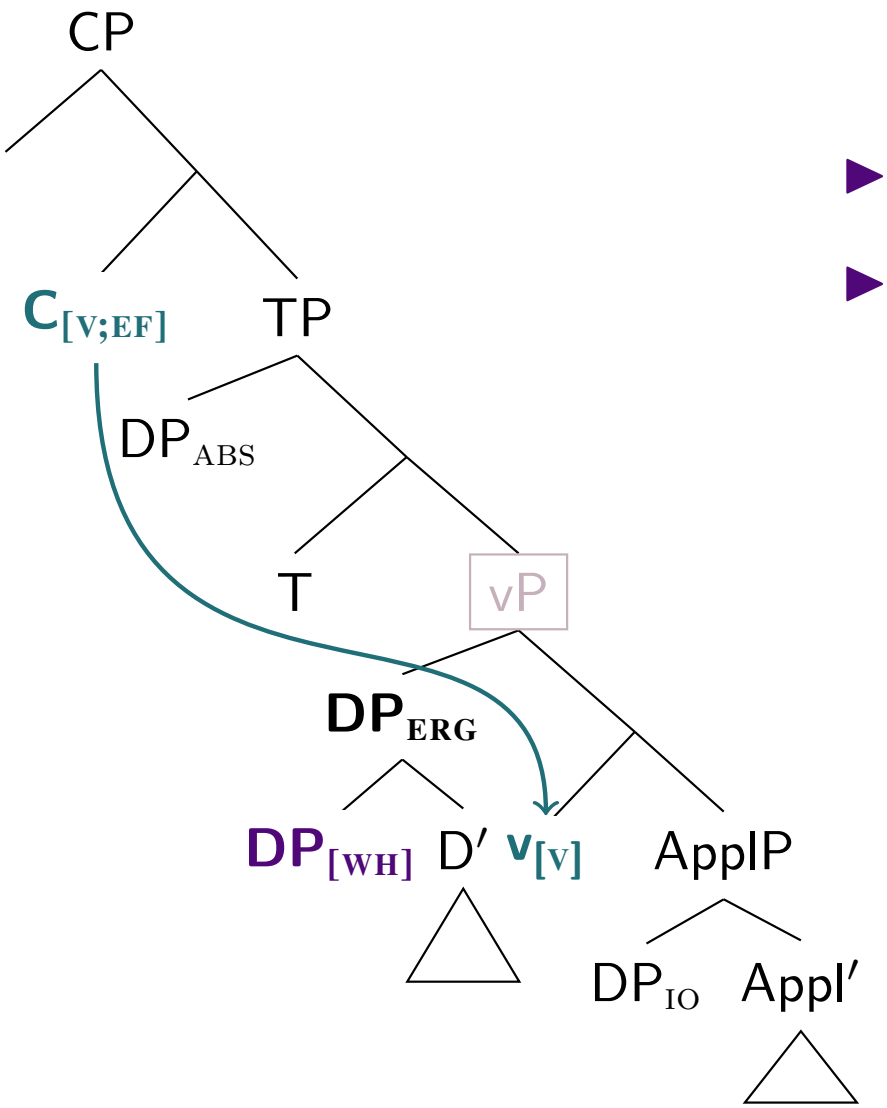


- C agrees with v in $[\mathrm{V}]$
- vP is no longer visible for C

C agrees with v and Appl ⇒ possessors can move



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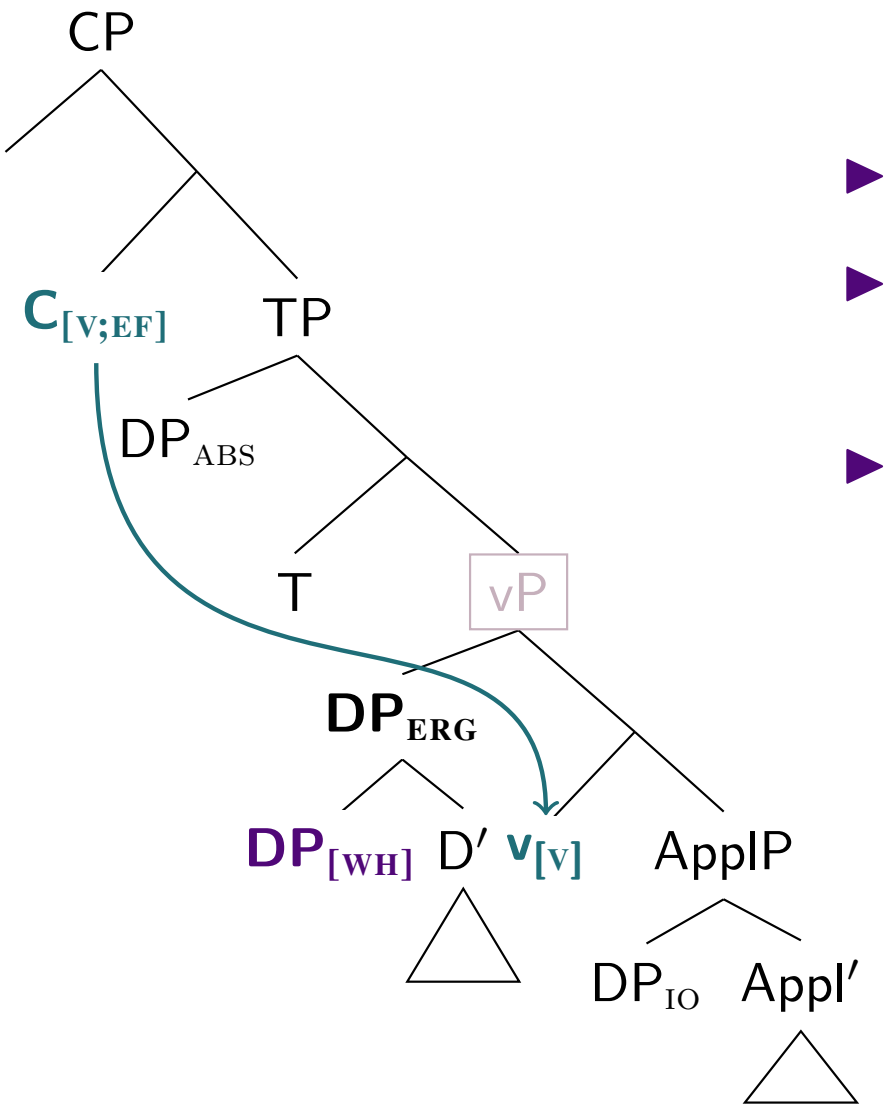

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(Chomsky 2008; Heck and Müller 2003; Müller 2010, 2011; Georgi 2014, 2017)

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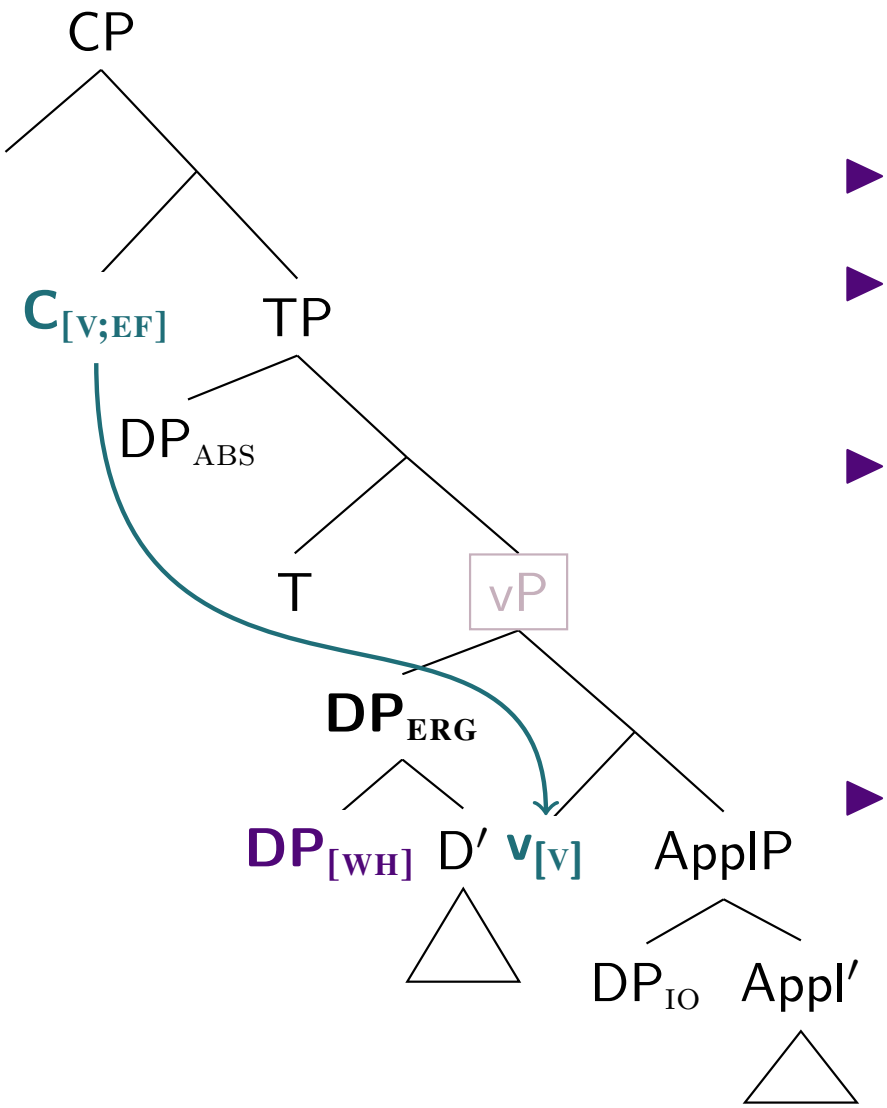

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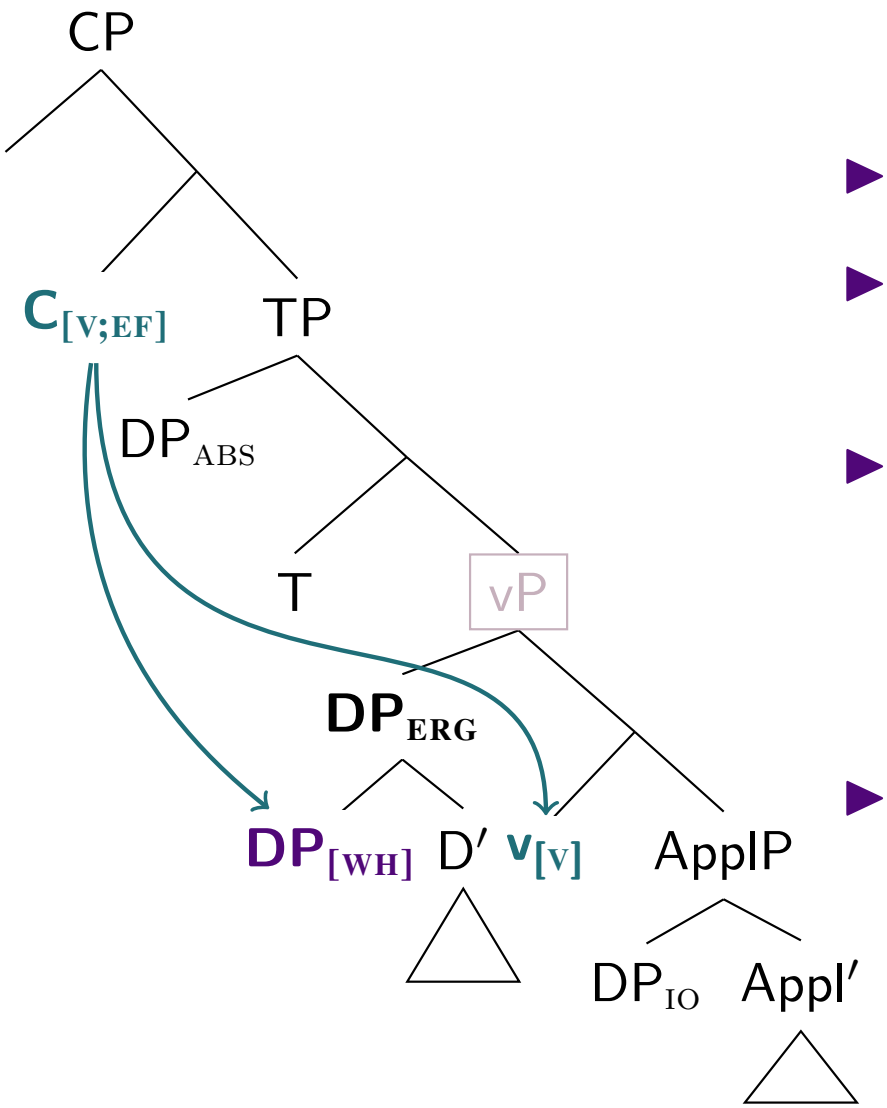

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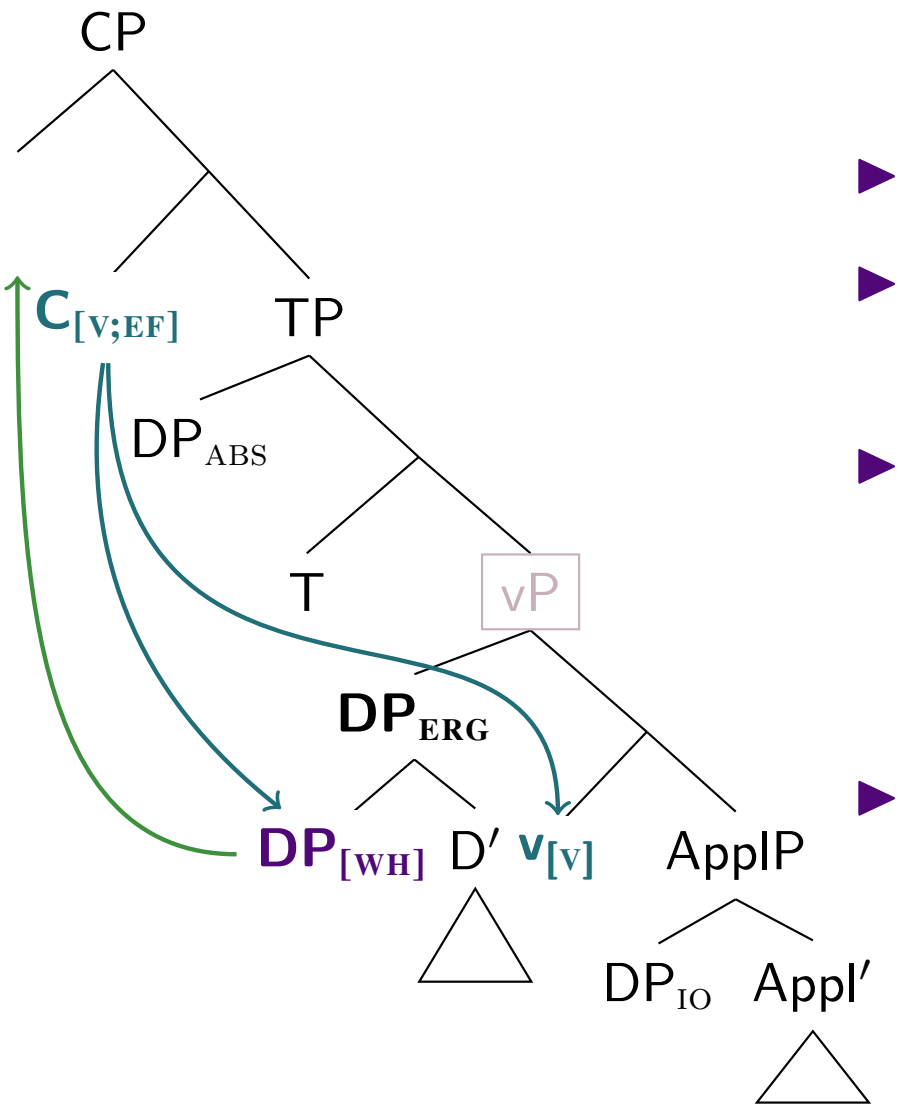

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- $[\text{EF}]$ probes **after** $[\text{V}]$
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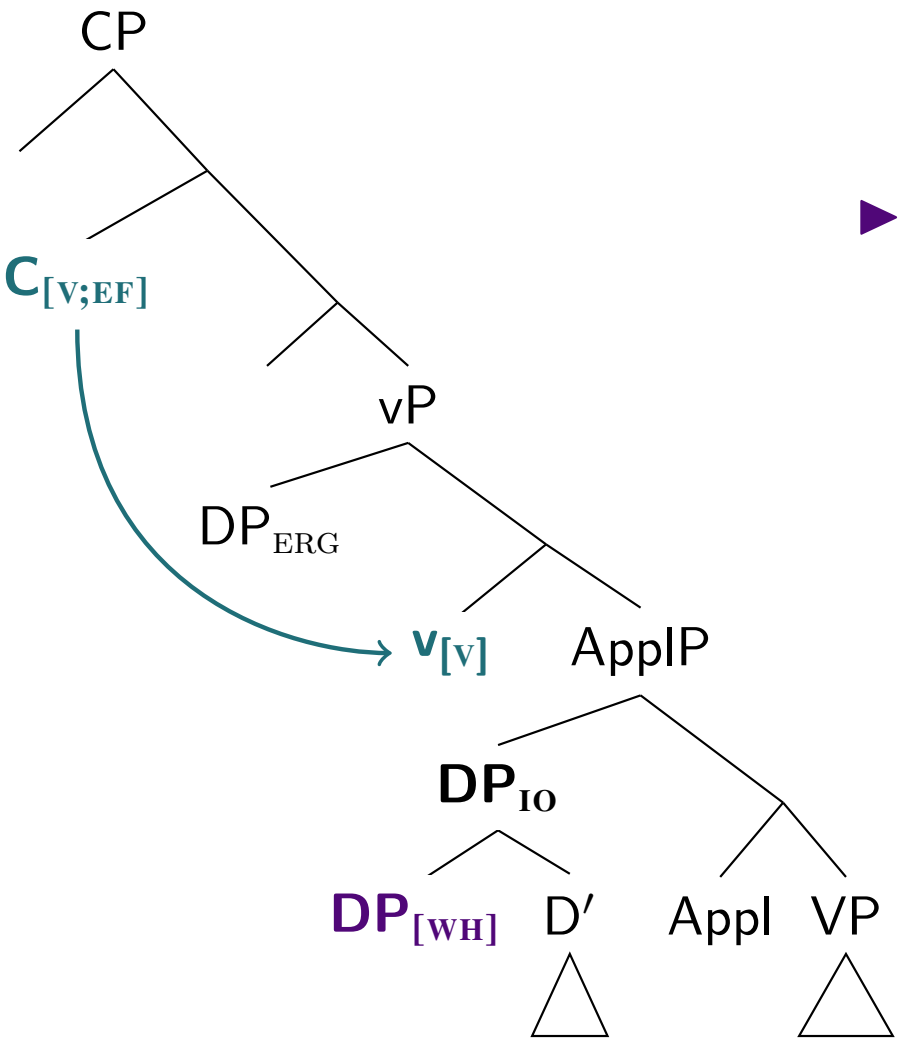
  possessor of ERG can move!

C agrees with v and ApplI ⇒ possessors can move



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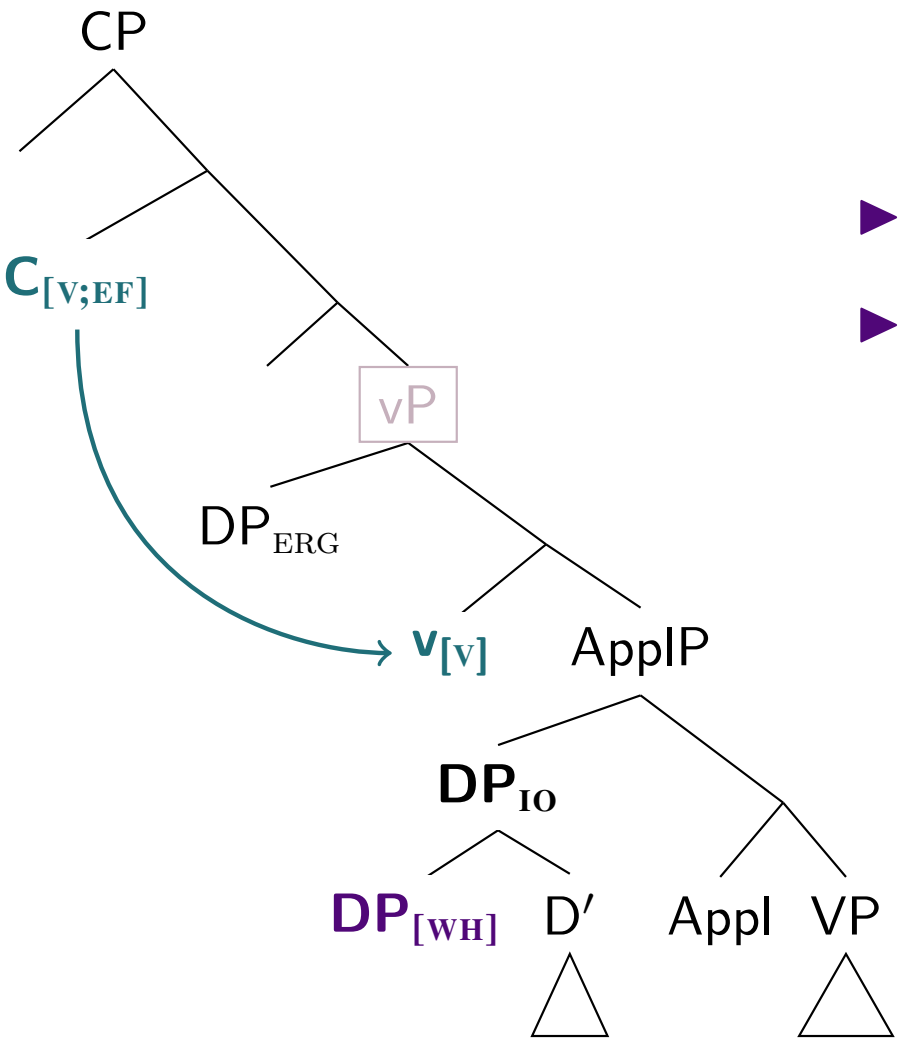

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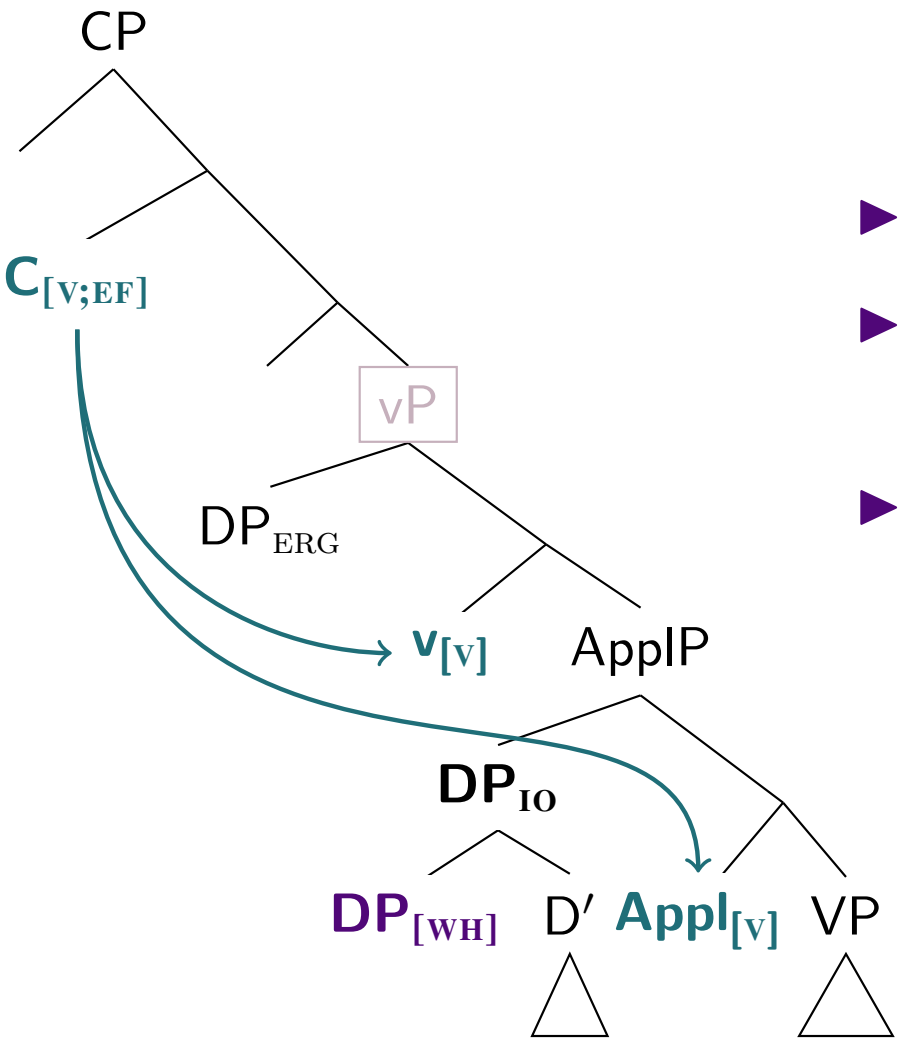

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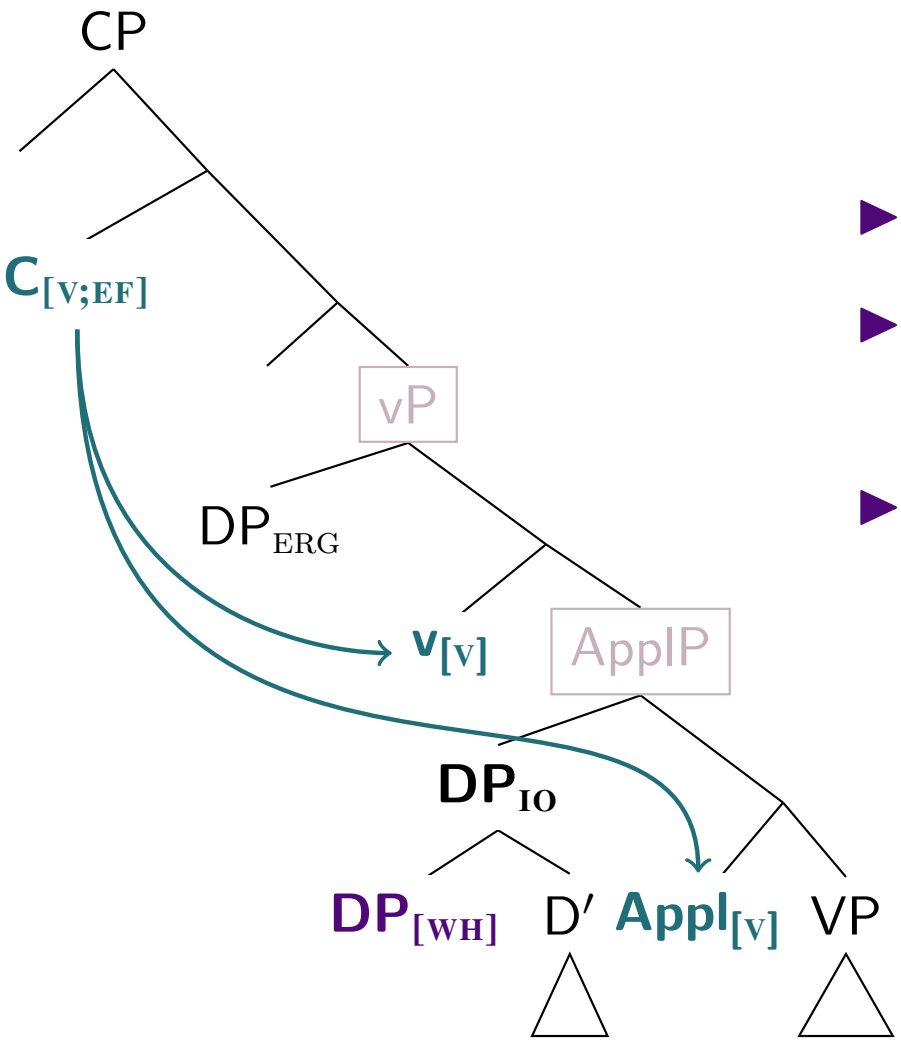
C agrees with v and Appl ⇒ possessors can move



- C agrees with v in $[\mathrm{v}]$
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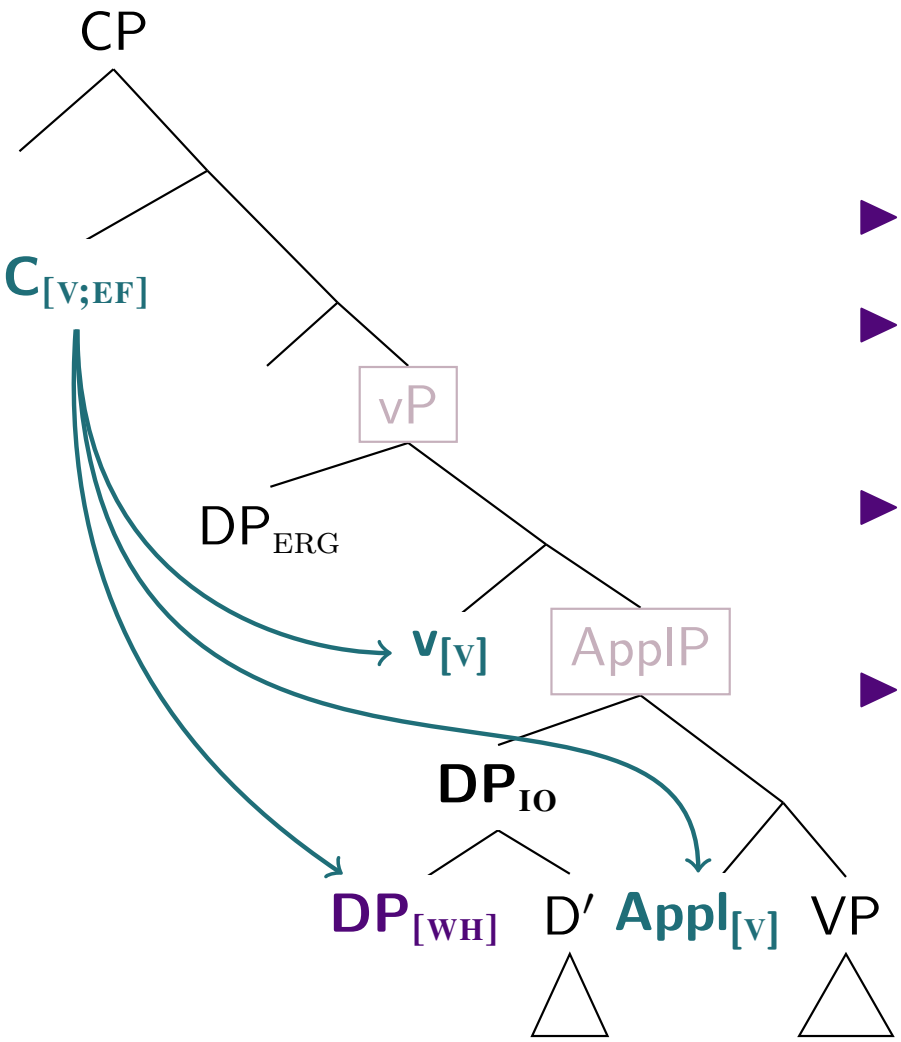

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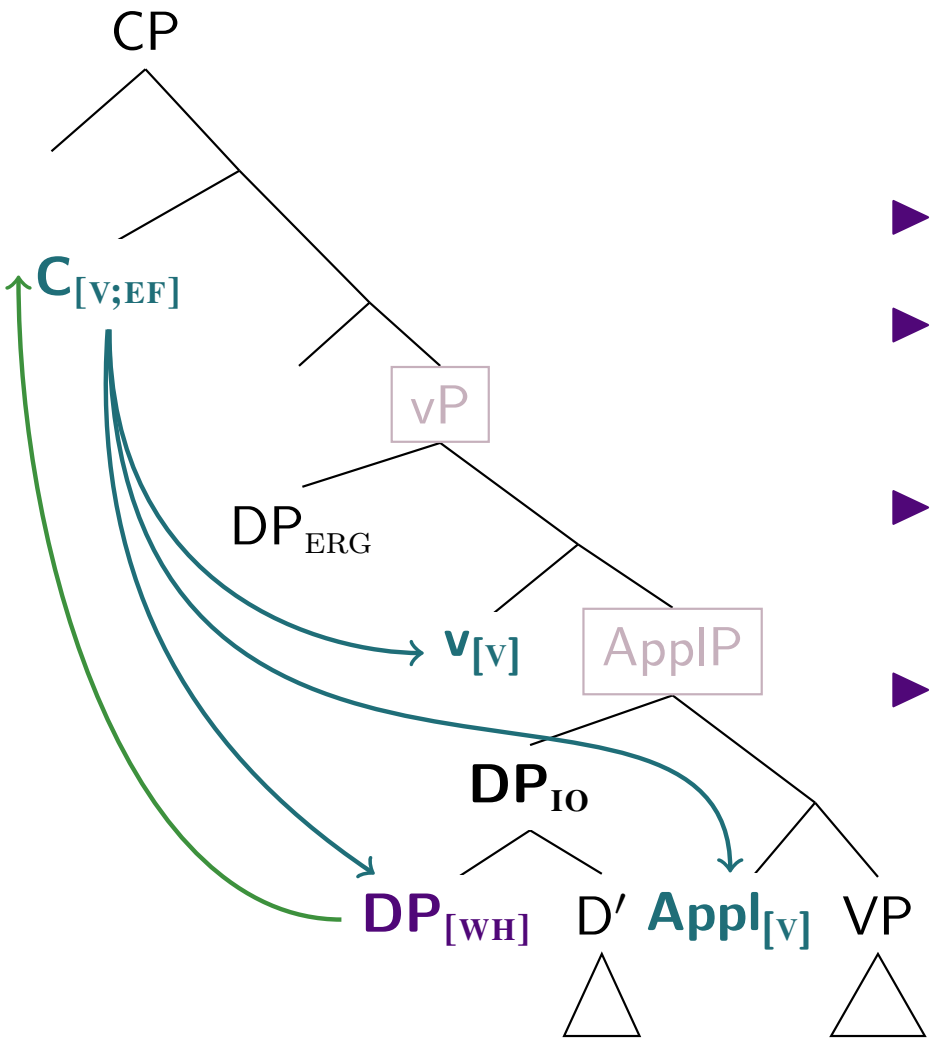

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Long-distance relativization: possessor of ERG can move

[CP1 **Op$_i$** [CP2 ***t*$_i$** **[*t*$_i$** **zjə-**sabəj-xe-m] wered

WH.POSS-child-PL-OBL song

Ø-q-**a-**ʔʷenew] wəmədere] -r

3ABS-DIR-**3PL.ERG-**say.MOD.ADV you did not consent -ABS

lit. ‘the one whose you did not consent for [__ children] to sing?’

Long-distance relativization: possessor of ERG can move

[CP1 **Op$_i$** [CP2 ***t*$_i$** **[*t*$_i$** **zjə-**sabəj-xe-m] wered

WH.POSS-child-PL-OBL song

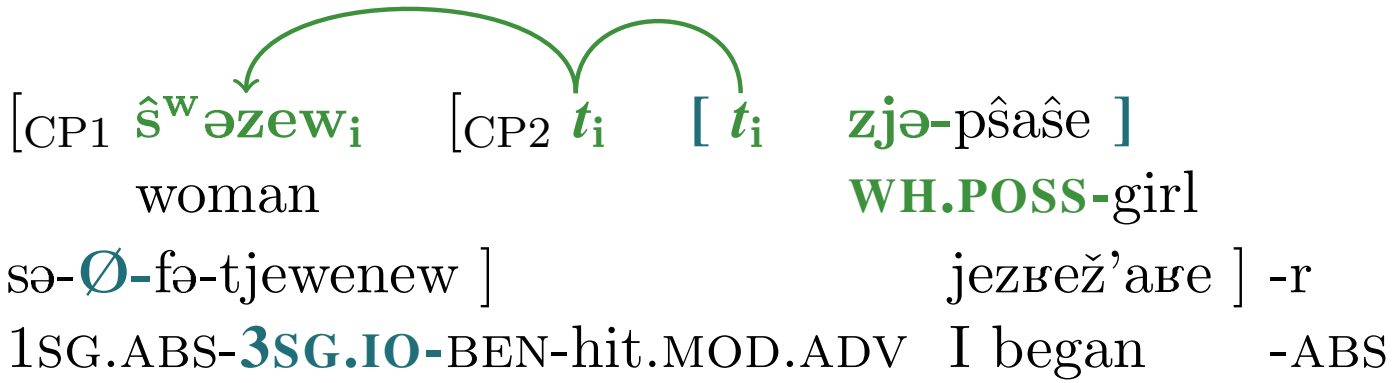
Ø-q-**a-**ʔʷenew] wəmədere] -r

3ABS-DIR-**3PL.ERG-**say.MOD.ADV you did not consent -ABS

lit. 'the one whose you did not consent for [__ children] to sing?'

*Embedded clause is a full CP (Ershova 2024)

Long-distance relativization: possessor of IO can move



lit. 'the woman whose I began to call [__ daughter]'

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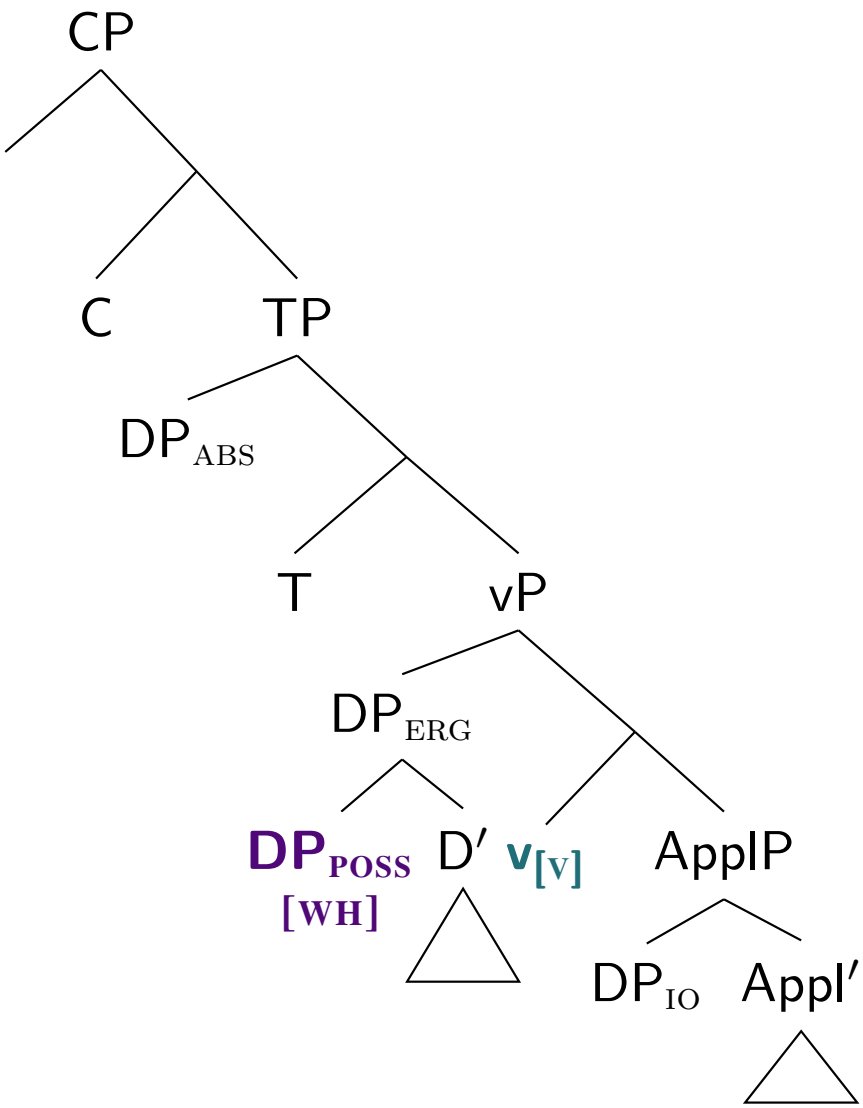
Answer: difference between contentful [WH] and edge feature [EF]

- [WH] probes **before** [V]
- [EF] probes **after** [V]
- Feature ordering: [WH > V > EF] (Georgi 2017)

Agree can't save clausebound possessor extraction



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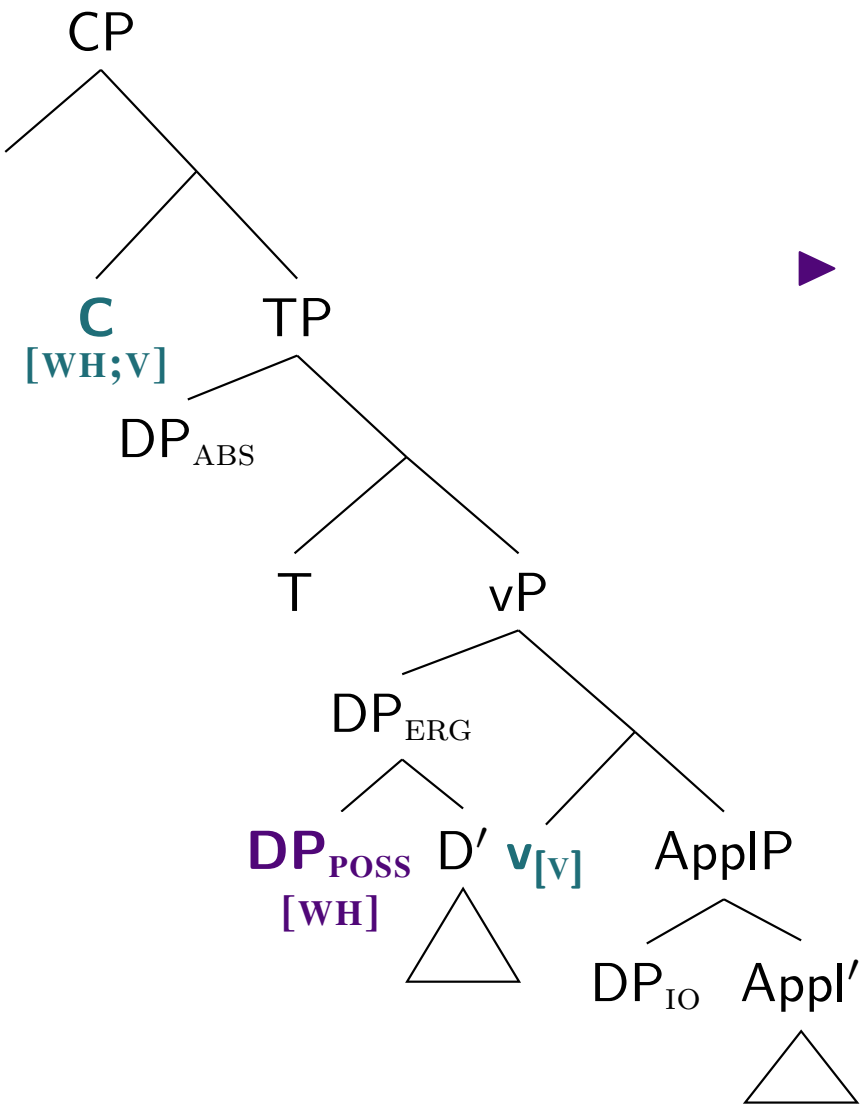

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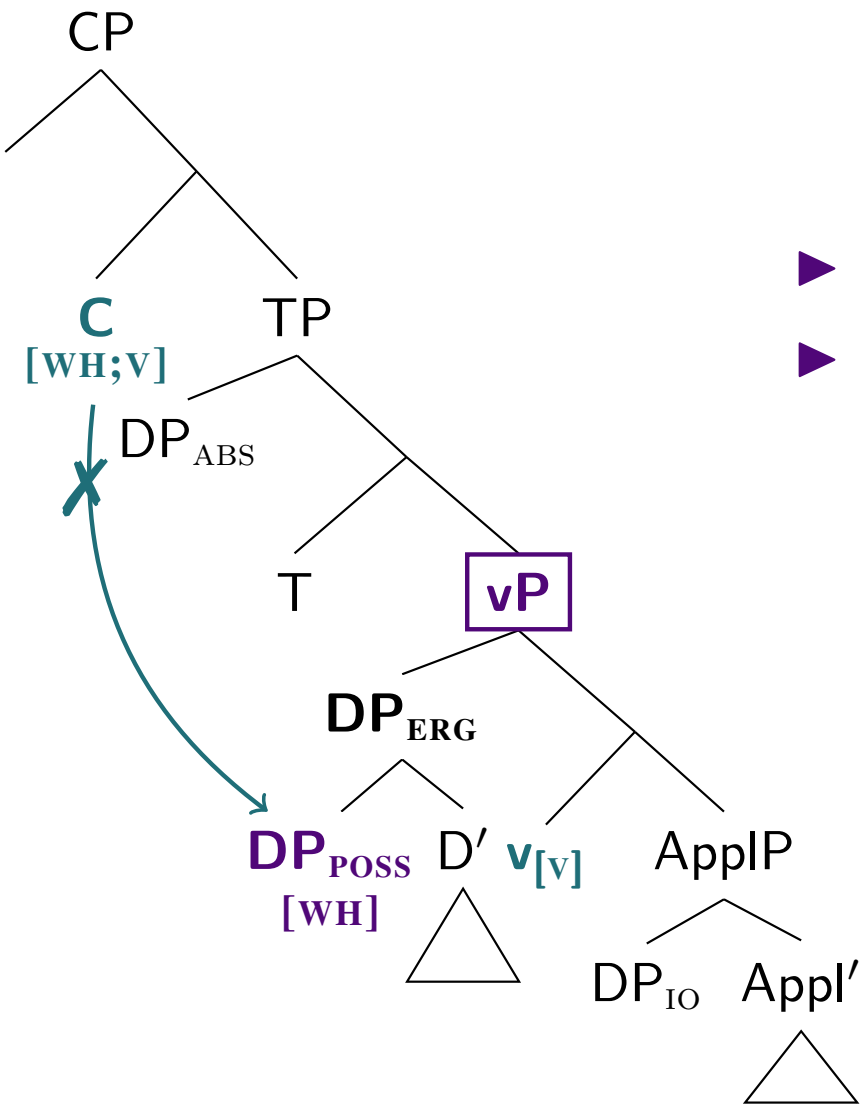

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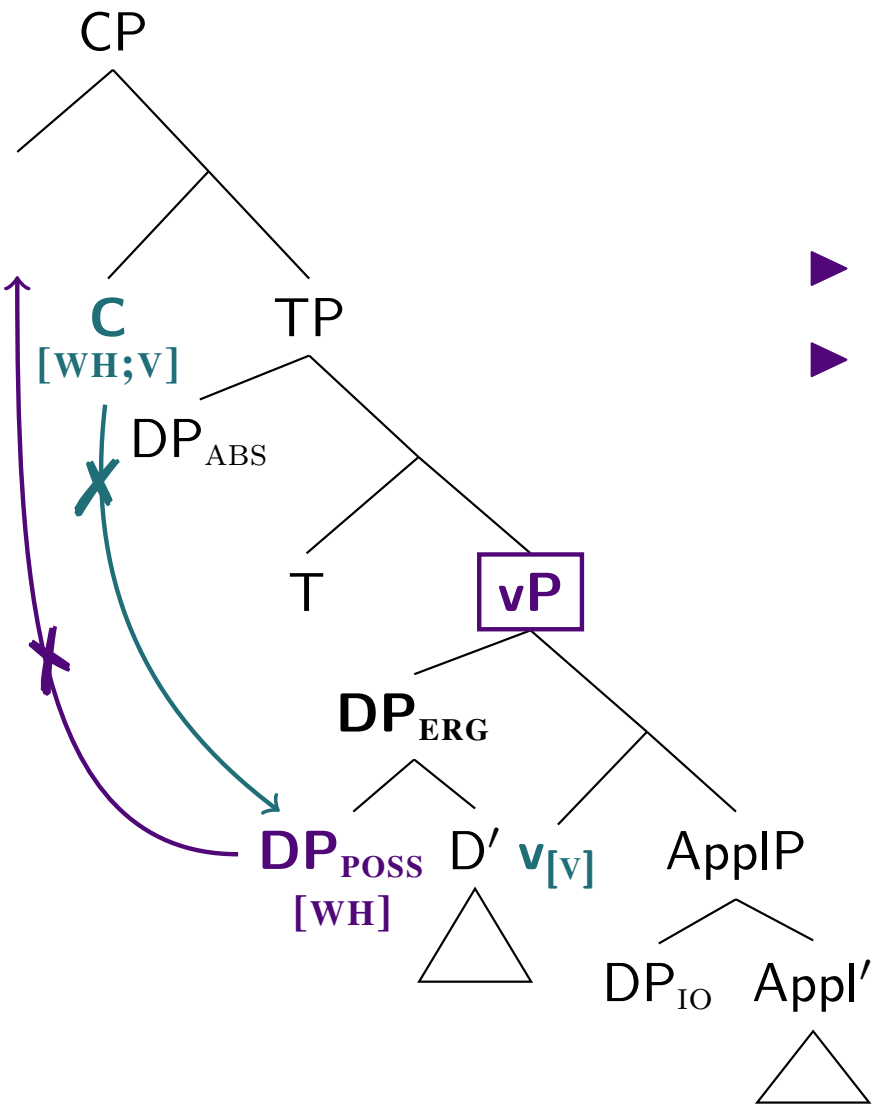

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> Not all syntactic phases are spellout domains.

Roadmap

- Background on West Circassian
- Phases in the syntax: interveners for Agree
- **Phases at the interface: spelling out polysynthesis**
- Wrapping up: phases in polysynthesis

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Connection between phase opacity and spellout

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

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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)

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- **nominal head** + **modifiers**

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    milk -[sweet -too] -warm -ABS

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

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    [ɕʷeqe- əčʼjə- š'əʁən]- tʷəčʼan -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'

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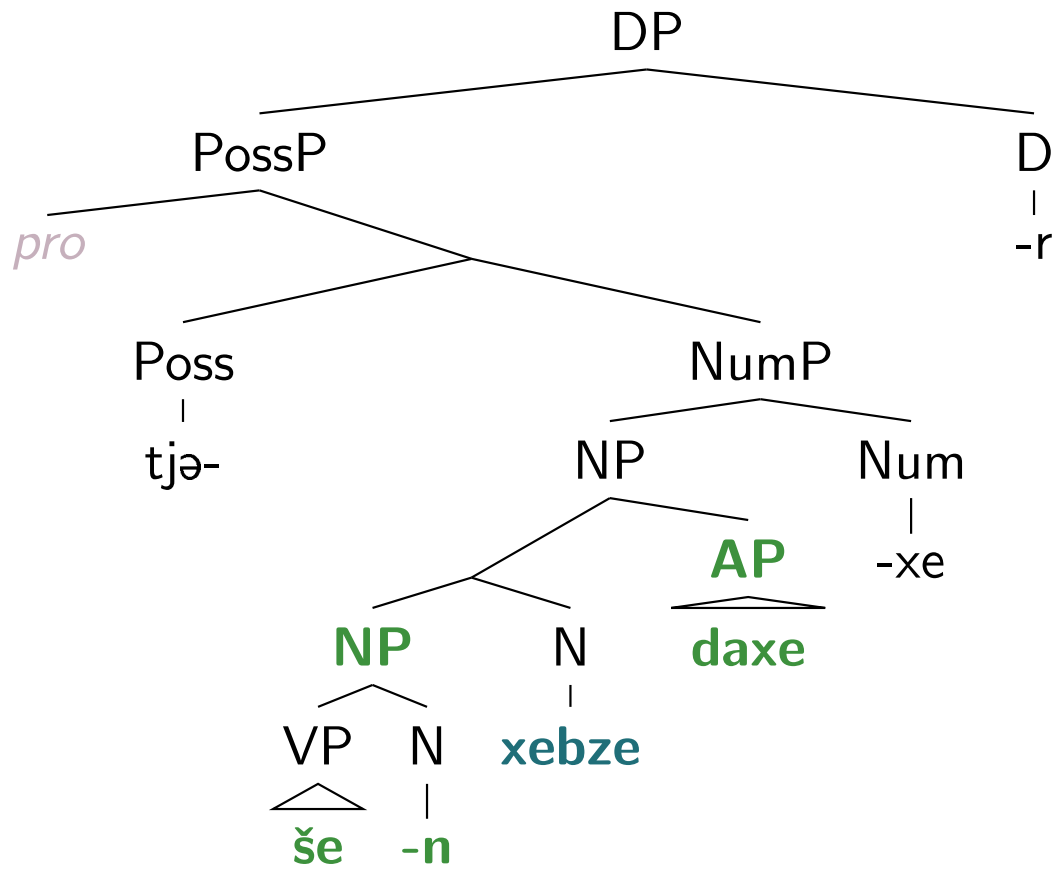

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Expected: 'I washed dishes'

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Evidence from nominalizations

Nominalizations: deficient verbal extended projection

Ershova (2020)

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‘I am washing dishes.’

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Ershova (2020)

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- nominalizations include causatives

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3SG.POSS-	rule-	CAUS-	perish	-NML

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

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ja-	haẑʷə-	**de-**	ǯegʷə	-č̣'e
3PL.POSS-	puppy-	**COM-**	play	-NML

'their way of playing with puppies'

Nominalizations include vP

External arguments are present, overtly or as PRO:

Nominalizations include vP

External arguments are present, overtly or as PRO:

[**PRO$_{PL}$**	qə-	**ze-**	de-	ŝʷe-nə-r]		***pro*$_{SG}$**	səgʷrjehə
	DIR-	**REC-**	COM-	dance-NML-ABS			I like

lit. '**I$_{SG}$** like [**PRO$_{PL}$** dancing with each other].' (Ershova 2020:457)

Verbal structure in nominalizations

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Nominalizations include vP and ApplP.

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Ershova (2023a): C **licenses** agreement on v and Appl

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However: no verbal φ-agreement

Ershova (2023a): C **licenses** agreement on v and Appl

← The same agreement unlocks vP and ApplP!

Nominalizations: vP is pronounced as part of one word

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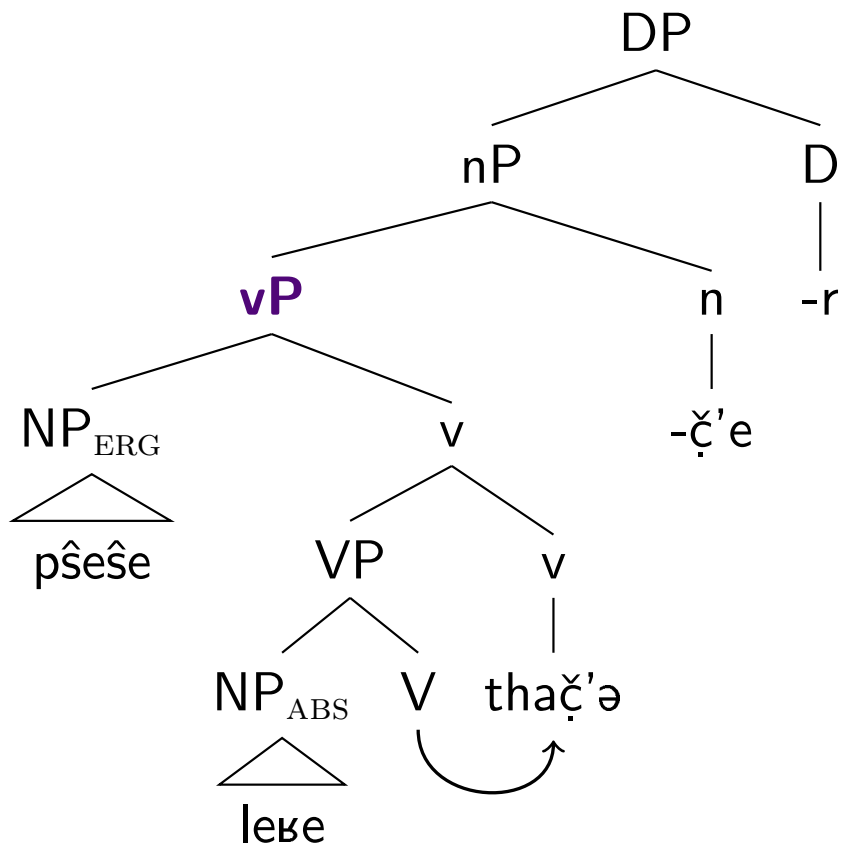

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Finite clause: vP is mapped to multiple words

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that-OBL	dish-PL-ABS	3SG.ERG-DYN-wash

‘She is washing the dishes.’

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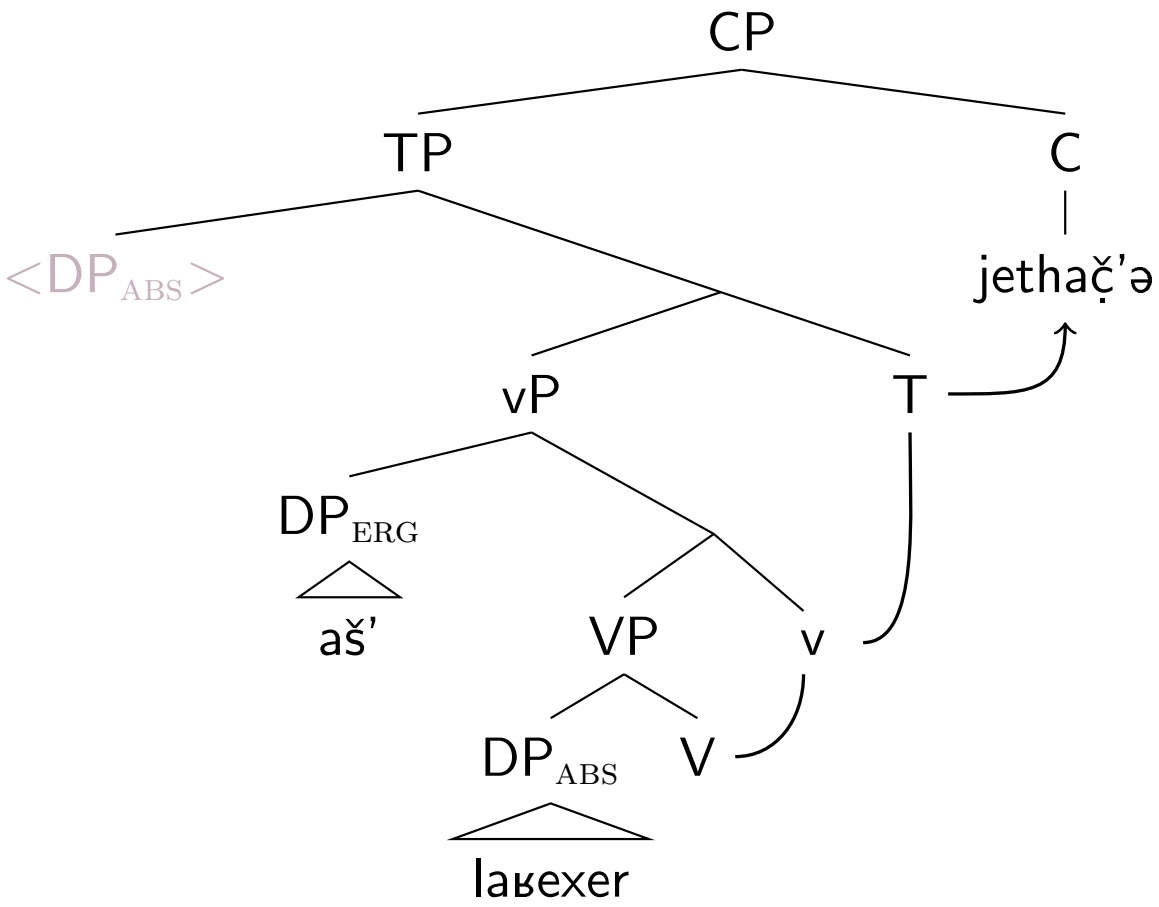

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Contrast with CP in nominalization

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CP is mapped to multiple prosodic words

Contrast with CP in nominalization

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⇒ CP and DP are prosodic domains,
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XP is a syntactic phase $\not\Rightarrow$ XP is a prosodic domain

Roadmap

- Background on West Circassian
- Phases in the syntax: interveners for Agree
- Phases at the interface: spelling out polysynthesis
- **Wrapping up: phases in polysynthesis**

Wrapping up: locality and spellout

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- **syntax-to-prosody rules** map phrasal constituents to phonological words (Ershova 2020)
  These constituents are identifiable as spellout domains

  > Phases (vP and ApplP) are spelled out differently depending on the larger spellout domain (CP or DP).

Thank you!

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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)