

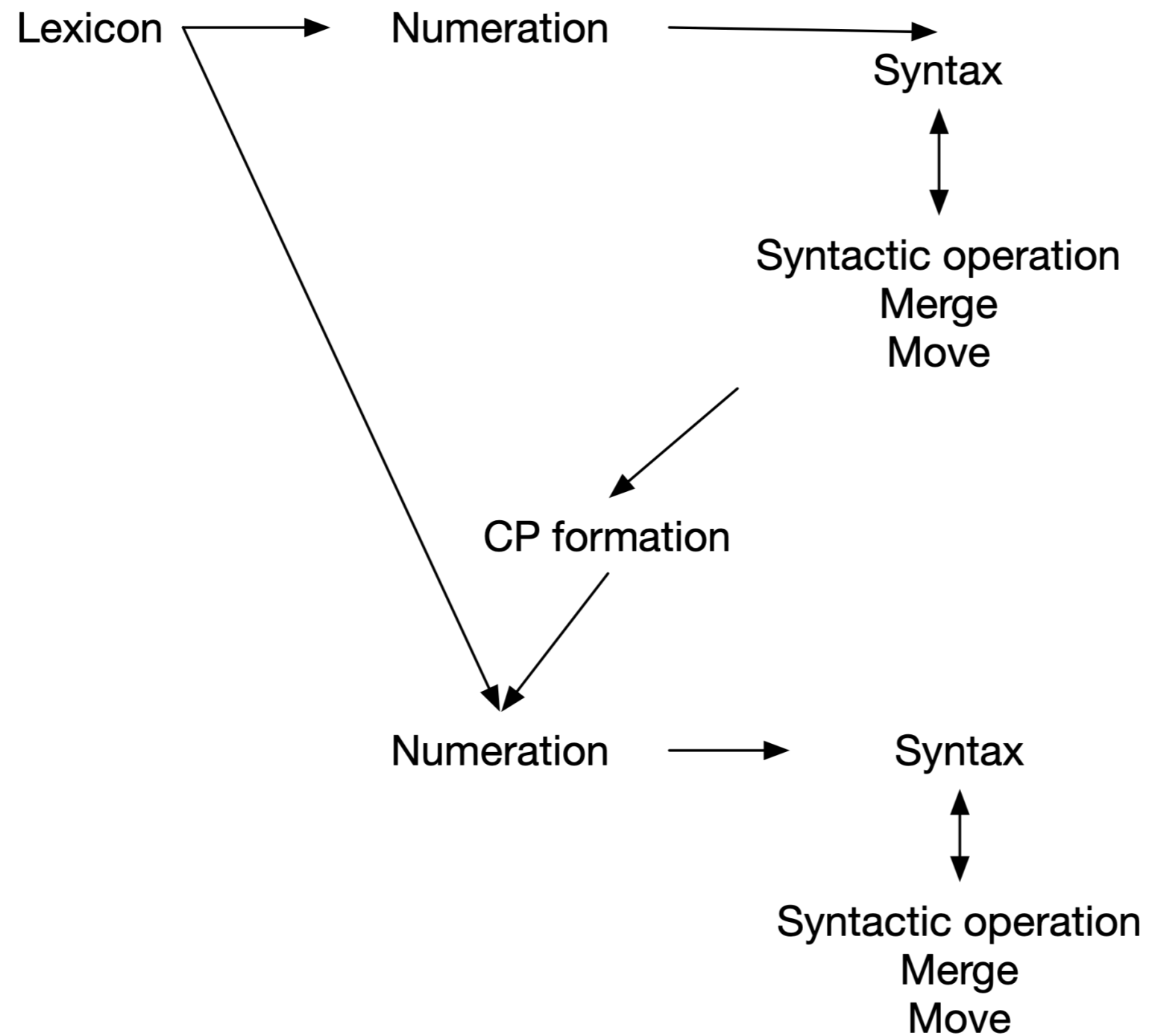
Phases Class III

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Up until now

- CP is a phase
 - Evidence from Numeration Chunking required for Merge over Move
 - Spell-out involves adding CP to a new Numeration

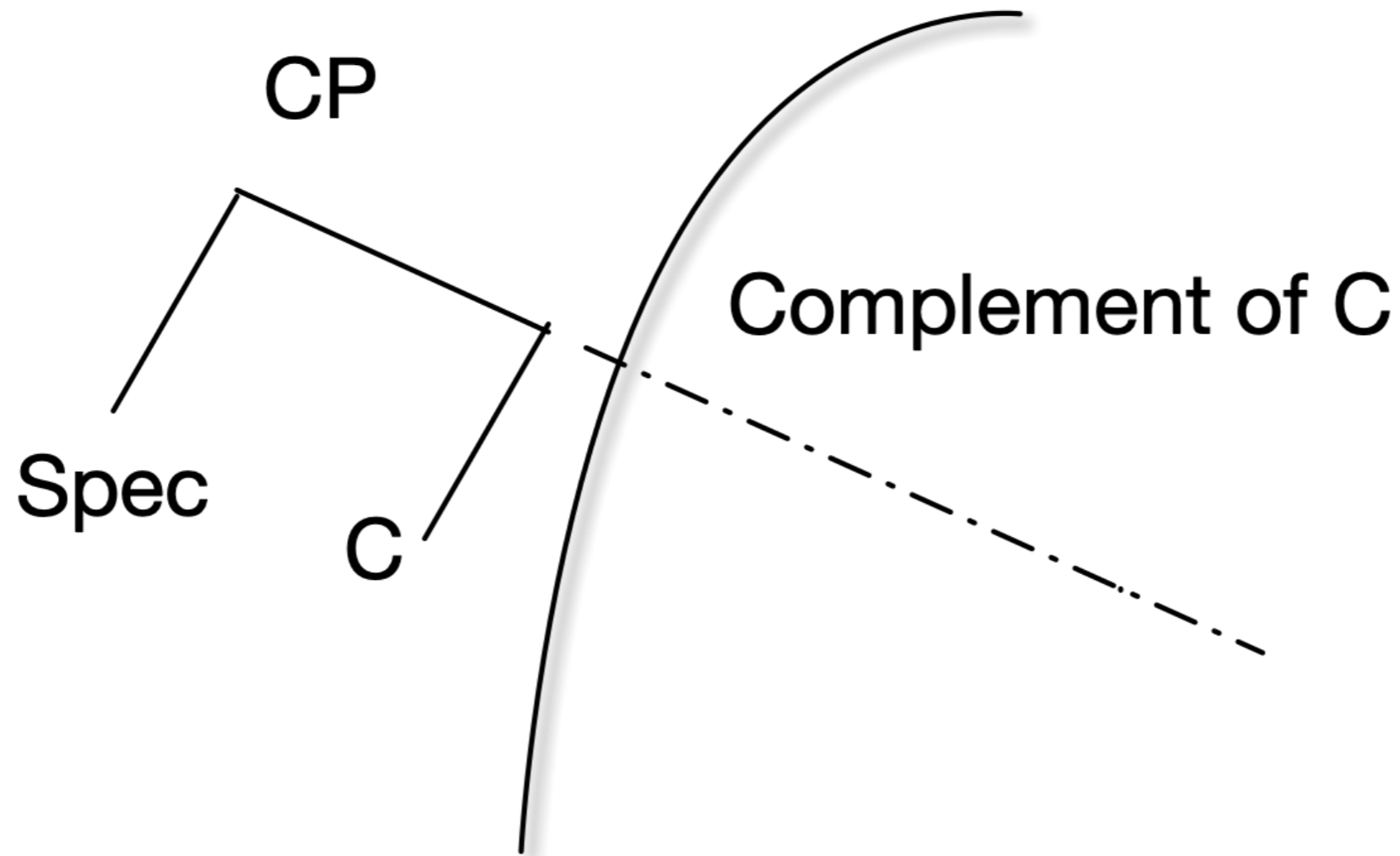
CP in the numeration



Not everything is frozen

- PIC needed, if not for anything else than for CP to be C-selected by higher functional heads.
- Head C and Spec CP are available for subsequent syntactic computations.
- Complement of C is not

What is sent to PF (S-M)



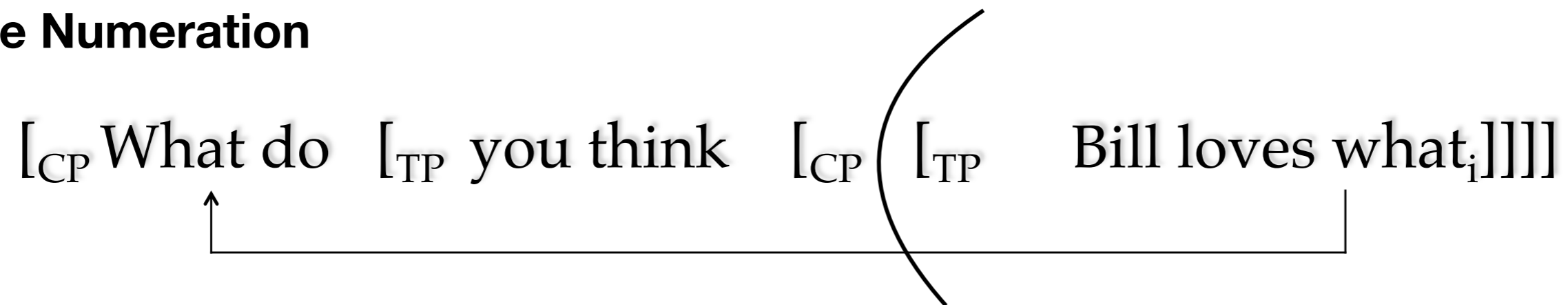
- C and Spec-C need to be accessible to further computation that affects PF and LF
- Complement of C is 'frozen' PF wise

PIC provides escape hatch for cyclic move

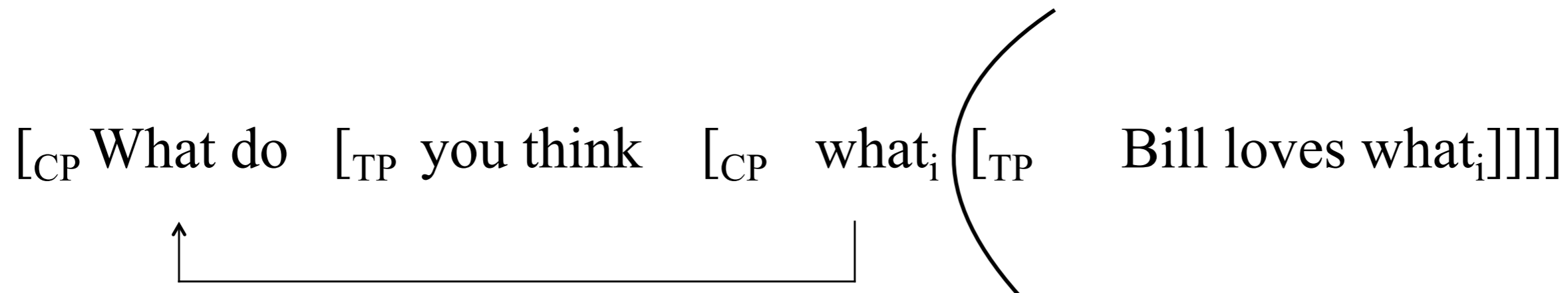
- Spec CP is available for movement out of CP that does not terminate at CP but moves up further
- Note there is an inherent ‘look ahead’ in such an approach
- We need to have a C with EPP/P features a priori before we have access to the terminal C that actually triggers move

Phases and PIC force cyclicly

One Numeration



Two Numerations



Add CP to new Numeration - making CP edge accessible

Evidence for cyclic move

- CP cyclic movement is supported by
 - Stranding effects - bits and pieces of moved wh are left behind in intermediate CP's
 - Agreement at CP - wh moves via CP and triggers C-Wh agreement
 - Languages with dedicated CP's for movement are sensitive to cyclic move
 - V2 is triggered in cyclic movement
 - Inversion phenomena in embedded CP's

Wh All stranding

- Stranded all in West Ulster English (James McCloskey. 2001. Quantifier float and wh-movement in an Irish English. *Linguistic Inquiry* 31:57-84.)
- a. What **all** did he say (that) he wanted?
- b. What did he say (that) he wanted **all**?
- c. What did he say **all** (that) he wanted?
- a. Where do you think **all** they'll want to visit?
- b. Who did Frank tell you **all** that they were after?
- c. What do they claim **all** (that) we did?

Irish all stranded at intermediate position

- The data is argued to show that ‘all’ is left behind in an intermediate position of movement
- All does not need to check an wh feature
- Whatever P feature intermediate C had was checked via wh movement, so was the EPP
- Wh expression must raise further to license wh feature

Agreement in CP

- **K**-u Isaa foog [CP **k**-u a bëgg]?
agr-c Isaa think agr-c 2sg love
'Who does Isaa think you love?'
- **F**-u Isaa wax ne [CP **f**-u-ma jàng-e taalif y-a]?
agr-c Isaa say frc agr-c-1sg read-loc poem def
'Where did Isaa say that I read the poems?'
- (Torrence 2012:22) Wolof phi agreement between C and moved wh phrase as far as class.
- Agreement in lower C suggests a local configuration between C and WH - this is called parasitic agreement.

2 CP in Irish

- Creidim [CP gu-r inis sé bréag].
believe.1sgc.dcl-past tell he lie
'I believe that he told a lie.'
- an fhilíocht [CP a chum. sí___]
the poetry. c.ext composed she
'the poetry that she composed'
- There two types of C in Irish, one via which an XP has moved, and one which has not (McCloskey 2002:185–186)

Cyclic movement trigger

Extraction trace

- an t-ainm [CP **a** hinnseadh dúinn [CP **a** bhí ____ ar an áit]]
the name. c.ext was-told. to-us. c.ext was on the place
'the name that we were told was on the place'
- (McCloskey 2002:185)
- Wh movement triggers a movement type C in embedded Cps

V2 effects

- Wen sagt Johan [CP__**sehe** er___]?
who. acc says Johan see.sbj he
'Who does Johan say that he is seeing?'
- *Wen sagt Johan [CP er **sehe**___]?
who.acc says Johan he see.sbj
'Who does Johan say that he is seeing?'
- German has V2 effects (German; Thiersch 1978:135)

V2 effects in cyclic move

Coppe Von Urk (2020)

- In welche Schule sagte Leo [CP ___ sei er gegangen]?
to which school said Leo is.sbj he went
'To which school did Leo say he went?'
- *In welche Schule sagte Leo [CP er sei gegangen]
to which school said Leo he is.sbj went
'To which school did Leo say he went?'

Inversion in Belfast English

- Who did John hope [CP **would** he see ____]?
- What did Mary claim [CP **did** they steal ____]?
- Irish rises inversion in embedded CP (Belfast English; Henry 1995:109)

CP spell out predicts that There should be C-I and SM effects

- CP's are propositions - semantic units
- CP's are targets of binding, quantifier scope resolution
- Phonological processes, such as ellipsis are CP sensitive

Sluicing

- Sluicing elision of TP
- I met someone but I do not know who ~~I met~~
- Susan thought that John met someone but I do not know who ~~Susan thought that John met~~
- Ellipsis targets complement of C but spares its Spec.
- Ellipsis is Suppression of PF

Reconstruction and Binding

- We also observe reconstruction effects that are CP sensitive
 - Binding conditions apply at intermediate positions
 - Scope interpreted at intermediate positions

QR

- There needs to be a component of syntactic computation that has no effect on PF:
- Some boy read every book
 - One book read every book
 - For every book there was a boy who read it
- Quantifier Raising (here movement of every above some) derives second meaning
- QR has no effect on word order
 - Need for syntactic computation after word order is established

Binding/reconstruction effects

- Reconstruction in Wh movement
 - Condition A - reconstruction has to be below Sam above Kim
 - Which picture of herself_{1/2} did you tell Sam₁ ✓ [Kim₂ likes_]?

Binding combined with scope

- Relative clause does not need to be interpreted in base position:
 - [DP Which argument that **John_i** made] did **he_i** believe?
- Condition C - wh expression has to reconstruct to **t'** for 'every student' >he, and no violation of Condition C
- [Which (of the) paper(s) that **he₁** gave to **Ms. Brown₂**] did **every student₁** hope [CP **t'** that **she₂** will read t?]
- *[Which (of the) paper(s) that **he₁** gave to **Ms. Brown₂**] did **she₂** hope [CP **t'** that **every student₁** will revise t?]
- (Fox 1999: 173, citing Lebeaux 1990, Citko 2014, van Urk 2020)

CP phase

- Shows overt syntactic evidence of phase
- Binding/ reconstruction evidence of phase at C-I
- Ellipsis evidence of phase at S-M

Spell out~transfer

- For PIC to operate for such operations like Move, we only need to have spell out to S-M since Move changes word order
- How about ‘covert’ operations, like Agree or covert move argued to be responsible for English multiple wh-move or Japanese Wh move
- Is Move blocked at the same time as covert operations?

The nature of covert operations crucial

- We can have simultaneous C-I and S-M Transfer if we assume that covert movement is copies spelled out in situ (movement has no PF effect)
- This predicts that covert movement is not different from overt i.e same island sensitivity in covert phrasal movement
- That is problematic

Islands in wh and QR

QR behaves like wh

- Coordinate Structure Constraint: movement must not originate from only one conjunct.
- (2) *Which beer did someone [ate fries and drink t] after leaving class?
- Someone [ate fries and drank every beer] after leaving class
 - *every>someone no wide scope for every beer there was a student who drank it after class

Islands in WH and QR

QR does not behave like wh

- subject are islands for wh movement (Subject Island Constraint).
- *What country does [someone in t] adores Chomsky?
- [Someone in every country] adores Chomsky.
 - every > someone For every country, there is someone who adores Chomsky

Intervention effects

- German: intervention above wh-in-situ, rescued by scrambling
- Wer hat Luise **wo** angetroffen?
who has Luise where met
'Who met Luise where'?
- *Wer hat niemanden **wo** angetroffen?
who has no one where met
- Wer hat **wo** niemanden angetroffen?
who has where no one met
'Who didn't meet anybody where'?
- Covert move - pair list reading. John in Boston, Mary in Syracuse, etc (Beck 1996)
- Covert wh move does not alleviate intervention effects, which are arguably not PF effects.
- Covert and overt wh are not identical.

Maybe PF has an impact

- Fox & Pesetsky 2005, linearization (via C-command a la Kayne 1995) at Phase edge
 - $wh > C1$
 - $C2 > C1$
 - $wh > C2 \rightarrow wh > C1$
- Richards 2011 Wh-movement is PF driven (Prosodic locality between C and WH)
 - Japanese vs English

PF deletion impacts Islands

- Well known facts, sluicing alleviates islands
- They hired a linguist who spoke some dialect but I do not know which dialect [~~they hired a linguist who spoke~~]
- Island alleviation maybe associated with
 - Linearization wh does not need to move because of PF deletion
 - Deletion of intermediate copies alleviates (Fox and Lasnik 2001) - but then islands are not derivational but representational

VP Phases

- vP's seem to have phase properties
- PF - vP ellipsis
- Mary will buy groceries on Monday and Bob will too
~~buy groceries on Monday~~

vP cyclic movement

Effects (via von Urk 2020)

- Defaka -kè appears on all intermediate verbs (Bennett et al. 2012:294):
- Bruce ndò Bòmá jírí-**kè** [CP___ á ésé-mà]
Bruce foc Boma. know-ext her see-nfut
'It is Bruce that Boma knows saw her.'
- áyá jíkà ndò Bòmá ì biè-**kè** [CP ì ísò___ sónó-mà-**kè**]
new house foc Boma I ask-ext I iso buy-nfut-ext
'It is a new house that Boma asked me if I'm going to buy.'
- First example subject long distance extraction, Second non subject wh.
- Note no ke in subordinate vP in Su extraction since that is where Su originates.

Subject in Spec-v Does not trigger ke

- Ke- does not show up in simple clause Su raising to T
- But in simple clause non su extraction out of vP triggers ke
- ì kò Bòmá ésé-kà-rè
Ifoc.sbj Boma. see-fut-neg
'It is me that will not see Boma.'
- tári ndo Àmànyà ómgbìnyà sònò àmà-**kè**___ kí!á !té?
who foc Amaya shirt buy. give-ext market p
'Who did Amaya buy a shirt for at the market?'

Phase edge can be filled Via Merge

- External arguments are assumed to be Merged in Spec-v
- Extraction of non-subjects out of vP requires multiple Specifiers since even after subject raises to Spec-T it leaves a copy
- An EPP/P feature on a phase head can license an additional Spec
- English v has multiple Spec's
- But C cannot since then we would have multiple wh like in Slavic
- Komu co Ja chce by Jan kupit
whom what I want subj Jab buy ~~whom~~ ~~what~~
What do I want John to buy for whom

Parasitic agree on vP

- Wot nit pahtoliyas [CP Mali elitahasi-c-**il**
this that priest Mary ic.think-3conj-part.obv
[CP eli wen kisi-komutonom-ac-**il**]
C someone perf-rob.ao-3conj-part.obv
'This is the priest that Mary thinks someone robbed.'
- il 3rd person obviate agreement (Passamaquoddy; Bruening 2006:34) via Coppe van Urk (2020)

V2 in vP/CP

- Dinka (von Urk & Richard 2015) has v2 in CP and vP
- CP V2
- Yè nà yùukù luêeel [CP___ cé cuîn câam]?
be who hab.1pl say.nf prf food eat.nf
'Who do we say [CP___ has eaten food]?'
- *Yè nà yùukù luêeel [CP cuîn à-cí câam]?
be who hab.1pl say.nf food 3sg-prf.ov eat.nf
'Who do we say [CP has eaten food]?'

V2 in vP

- vP has V2 effect:
- Yîin cé [vP Àyén gàam cáa].
you prf.sv Ayen give.nf milk
'You have given Ayen milk.'
- *Yîin cé [vP___ gàam cáa Àyén].
you prf.sv give.nf milk Ayen
'You have given Ayen milk.'

V2 in vP cyclic move

- Object extraction
- Yè nọ [CP cíi môt [vP___ yiĚEn Bòl]]?
be what prf.ov man.gen give.nf Bol
'What has the man given Bol?'
- *Yè nọ [CP cíi môt [vP Bòl yiĚEn]]
be what prf.ov man.gen. Bol. give.nf"
'What has the man given'

Does movement Go through vP and CP edge?

- All-stranding at vP and CP in East Derry English:
- What did he [vP **all** do ___ in Derry]?
- What did he say [CP **all** that he did ___ in Derry]?
- What did he [vP **all** say [CP that he did ___ in Derry]]?
- (Henry 2012:31)

Reconstruction to intermediate vP (Legate 2003) - showing passive v a phase head

- [At which of the parties that he_i invited $Mary_j$ to] was every man_i \checkmark introduced to her_j *
- * [At which of the parties that he_i invited $Mary_i$ to] was she_j * introduced to every man_i * ?
- Clauses with a wh-phrase must reconstruct below every man/woman in order for he/she to be bound, and above Mary/John for the construction to obey Condition C.

QR, AC and VP

- ACD resolution via QR (Fox 1995)
- Infinite regress
- I visited every city that you did ~~visit every city [that you did visit every city [that you....~~
- Need an antecedent with no DP and RC (RC late insertion)
- I <sup>←
QR of Every City</sup>every city visited t [that you did visited t]
- How do we know QR is vP

QR to vP

- Negative polarity
- Mary didn't [vp introduce John to [DP anyone you did [vP2e]]].
- Scope
- Some woman [vp gave John [DP every message you did [vP2 e]]].

Agreement

- Examine PIC to account for Agreement
- Since we now have CP and vP how do they Spell out respective to each other.

PIC revised

- The domain of H is not accessible to operations outside HP only H and its edge are accessible to such operations. STRONGPIC/PIC1 “Minimalist Inquiries”
- The domain of H is not accessible to operations at ZP only H and its edge are accessible to such operations. WEAKPIC/PIC2 “Derivation by phase”

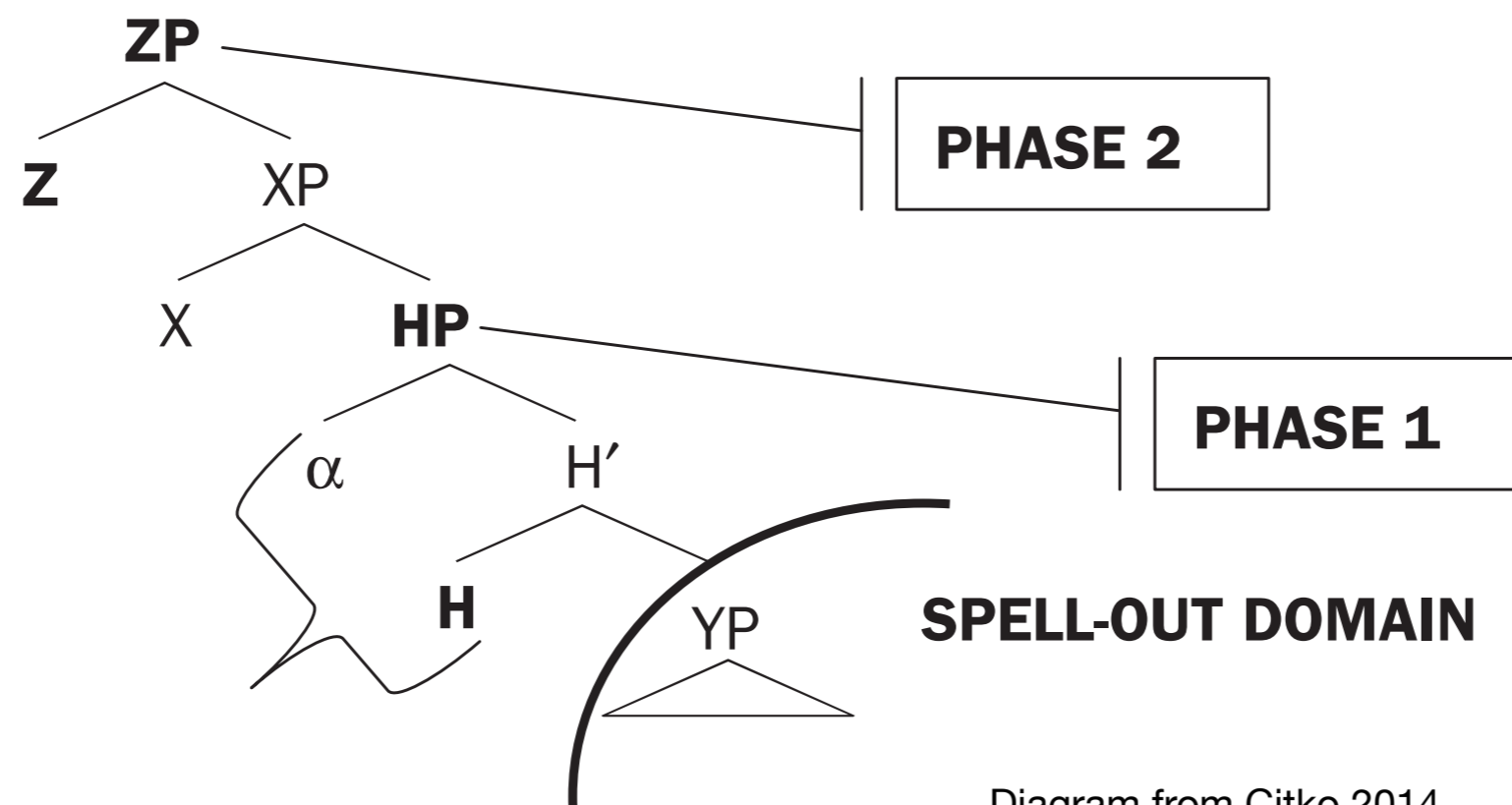
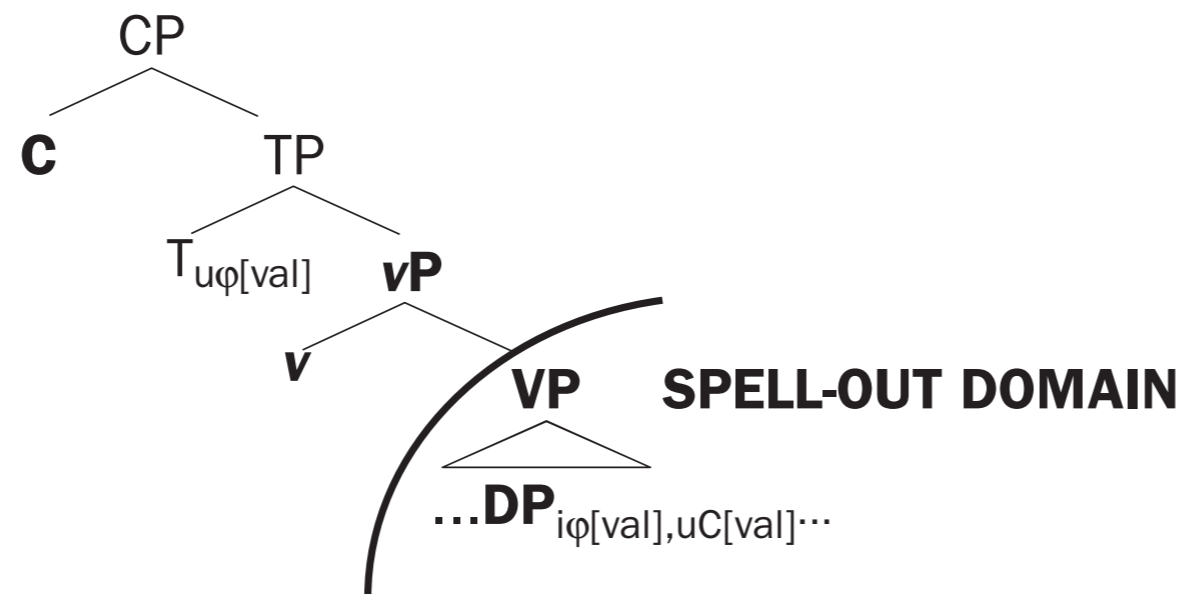
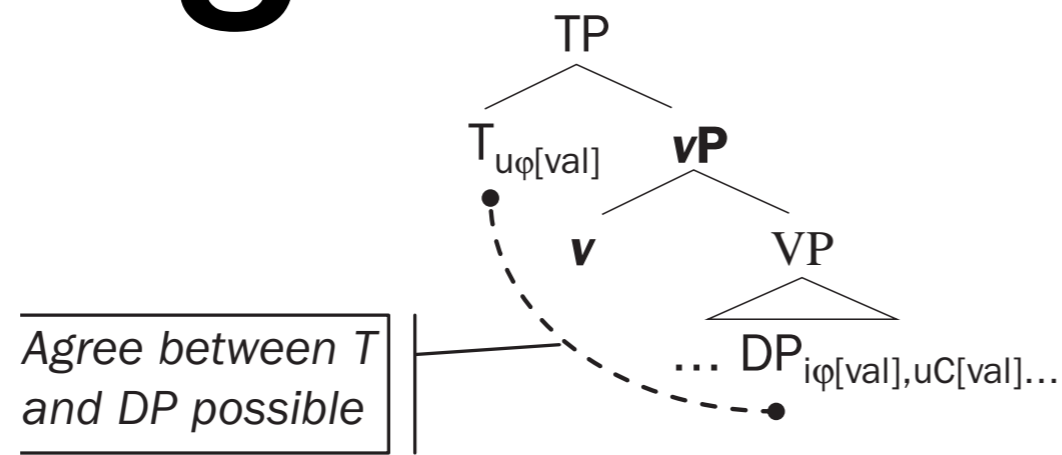


Diagram from Citko 2014

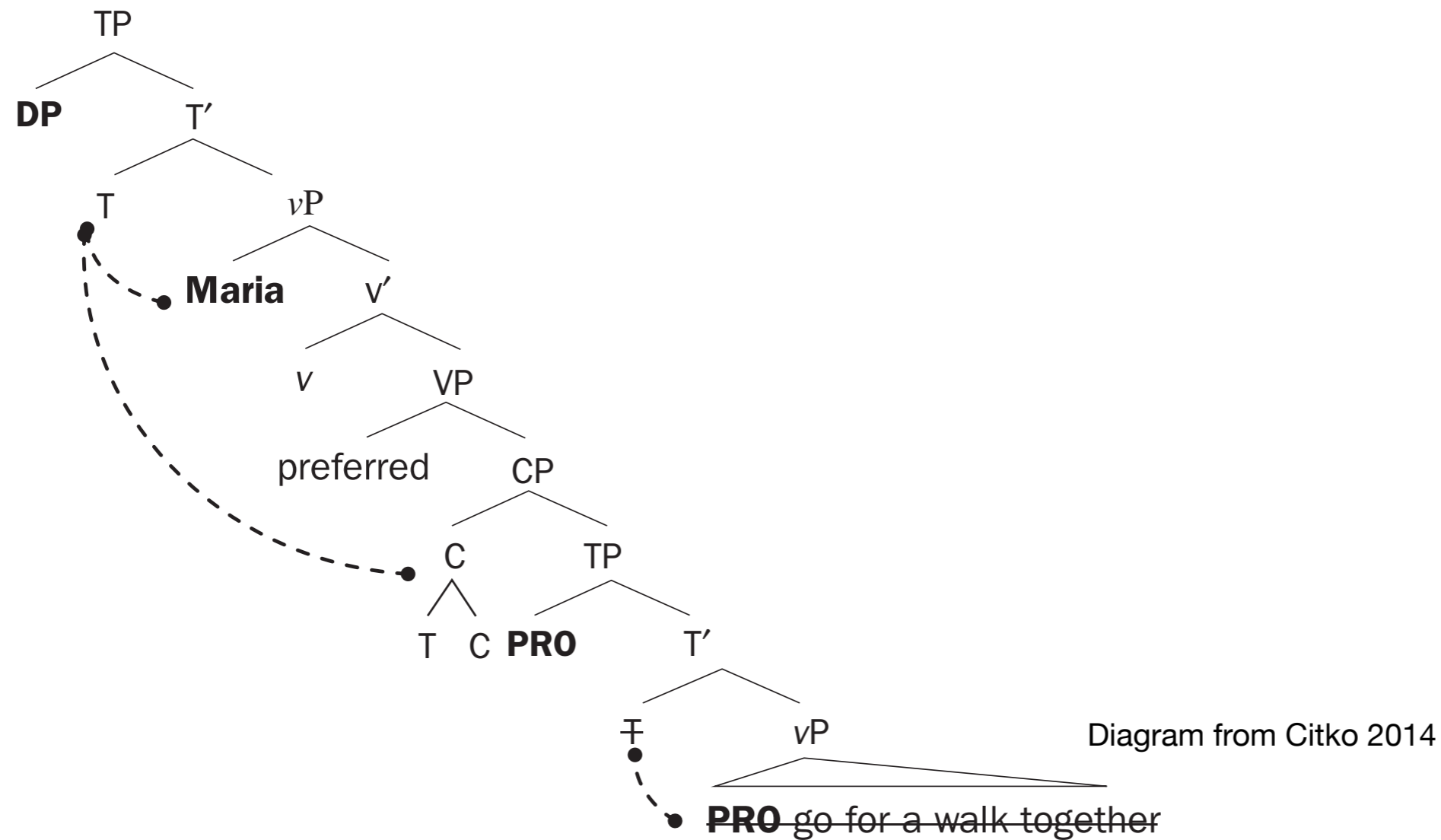
Agreement



- Henni höfðu leiðstPeir. [Icelandic]
her.DAT had.3PLbored.at they.NOM
‘She had found them boring.’ (Sigurðsson2002: 692)
- Marii podobała się ta książka. (Polish Citko 2014)
Maria.DAT please. REFL this book.NOM
‘Maria liked this book.’

Diagram from Citko 2014

Partial control Landau 2000



- Maria₁ preferred [PRO₁+to go for a walk together]
- Partial control - allows plural PRO (together)

Full control Landau 2000

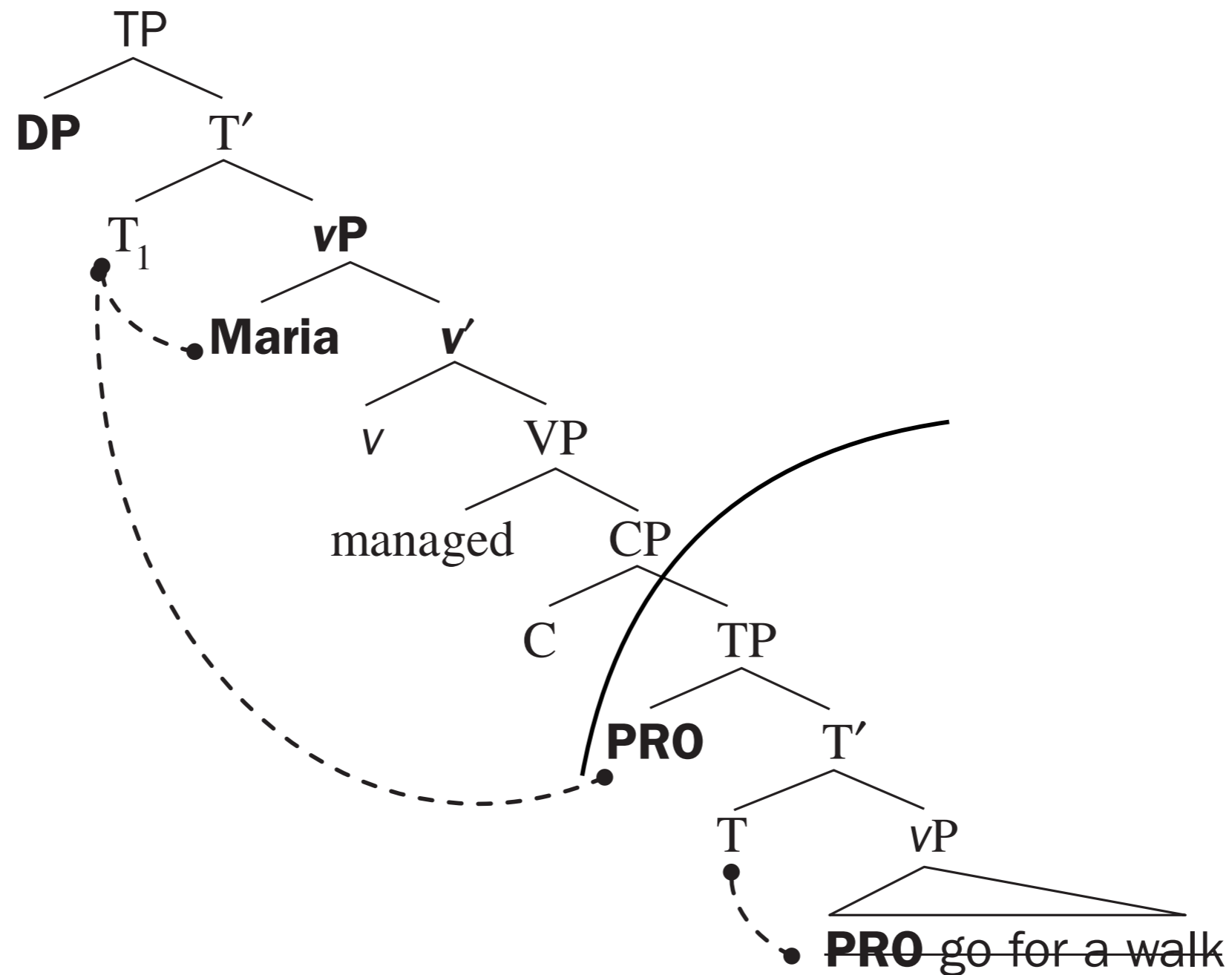


Diagram from Citko 2014

- . Maria₁ managed [PRO₁ to go for a walk].

Control and PIC

- PIC needs to be modified to allow Agree violating PIC if Goal has interpretable features Landau 2000
- Problematic
 - Transfer and PIC are disjoint
 - PIC more a condition on Merge (Internal and External)

Long Distance Agreement

- enir [užā magalu bāc'ruḷi] b-iyxo.
Mother [boy bread.III.ABS ate] III-know
The mother knows [the boy ate the bread].
'The mother knows the boy ate the bread.' (Polinsky & Potsdam2001: 584)
- Agreement between matrix verb and embedded object in tensed clause
- LDA either PIC needs revising
- Or there is movement going on here