Phases class V

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No fixed null heads Consequences

- In some cases we see as if a whole phase is elided not just the complement.
- Extraction interaction with ellipsis

Sluicing and extraction

- movement out of ellipsis sites must be possible, including A′-movement,sluicing

- They arrested someone, but I don’t know [CP whoi C [IP they arrested ti]].

Japanese

- Hanako-wa [CP zinbun-no teian-ga saiyoosareru to]
  Hanako-TOP self-GEN proposal-NOM accepted.be that
  omotteiru ga,Taroo-wa omotte inai
  think though Taro-TOP think not
  ‘Hanako$_i$ thinks that her$_i$ proposal will be accepted, but Taro$_j$ does not think ~~that her$_i$/his$_j$ proposal will be accepted.’~~

- This is ellipsis since sloppy strict readings

- But CP is deleted

Phase head ellipsis

- IF whole CP is deleted and
- No spurious empty heads
- Then we cal elide a phase head
- Bošković 2014 claims this accounts for lack of extraction in Japanese CP ellipsis

Extraction out of elided CP not possible

- *Hon-o$_i$ Taroo-wa [CP Hanako-ga t$_i$ katta to] itta ga,
  book-ACC Taro-TOP Hanako-NOM bought that said though
  zassi-oj Ziroo-wa itta.
  magazine-ACC Ziroo-wa said
  'Taro said that Hanako bought a book, but Ziro said that she bought a magazine.'

- Scrambling not possible from null CP, possible in non null

Why movement out of elided CP out

- Once higher phase head is merged (PIC-weak) lower phase head active
  - Either assigns PF deletion to its complement
  - Or is slated for PF deletion as a whole
- The latter freezes PF operations such as move

Not all movement frozen

- Ik wou hem dat boek helemaal niet geven, maar ik moest
  I wanted him that book at.all not give but I must.PAST
  [~~hem dat boek geven~~].
  him that book give
  ‘I didn’t want to give him that book at all, but I had to.’

- Analyzes as T complement deletion (Aelbrecht 2010:51), not

- Modal complement deletion

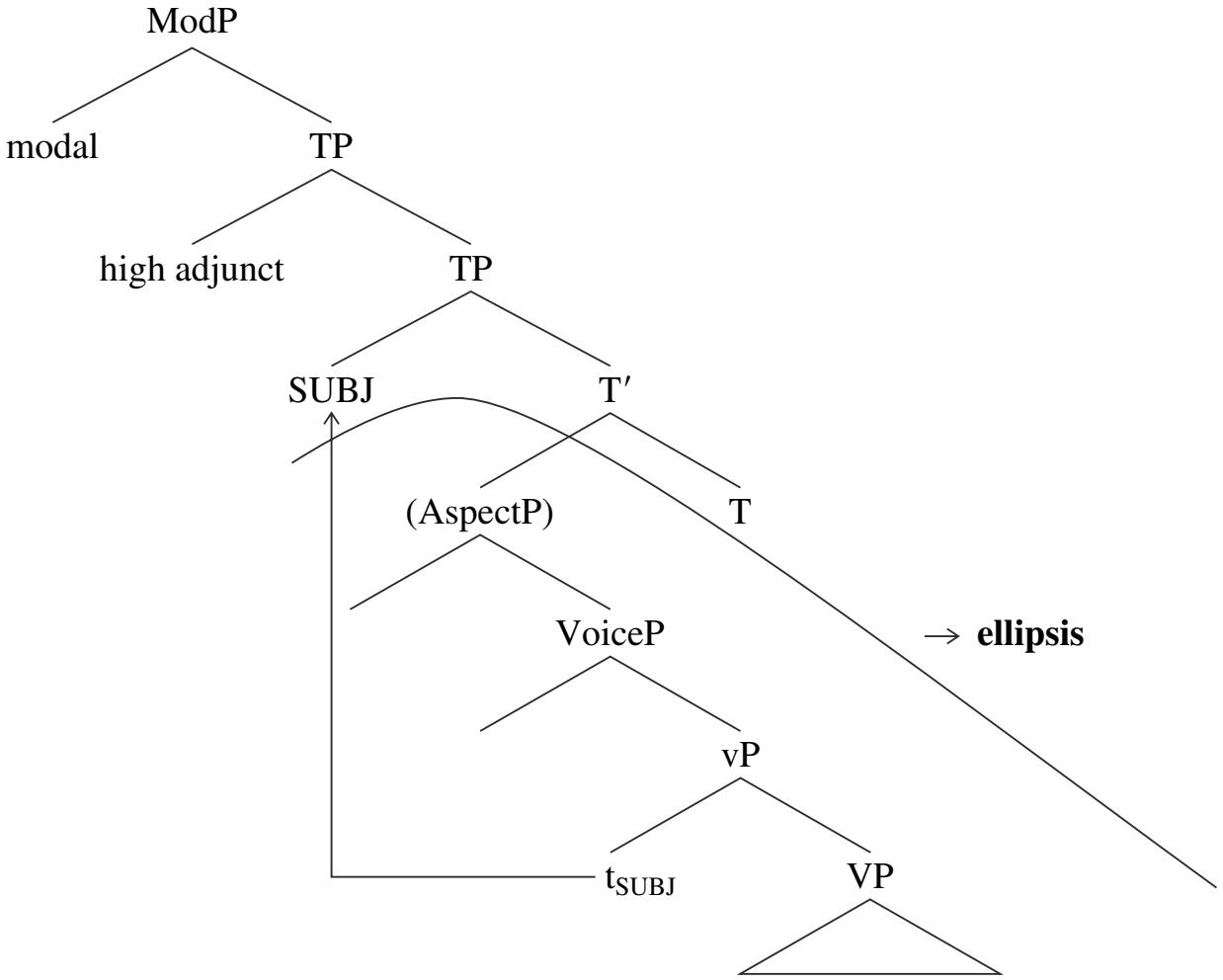
TP complement deletion

- A: Gaat er iemand naar het feestje morgen?
  goes there someone to the party tomorrow
  ‘Is anyone going to the party tomorrow?’

- B: Er moet toch [iemand[naar het feestje gaan]].
  there must still someone to the party go
  ‘Well, SOMEONE has to.’

- Someone is in SPecT, still adjunct of TP (Aelbrecht 2010:56)

Diagram Albrecht 2010



A-move allowed since top phase head not there yet, no PF freezing

Wh move not allowed

- *Ik weet niet wie Thomas moet uitnodigen, maar ik weet wel wie hij niet
  I know not who Thomas must invite but I knowAFF who he not mag.
  is.allowed
  ‘I don’t know who Thomas HAS to invite, but I do know who he isn’t ALLOWED to.’(Aelbrecht 2010:128)

Ellipsis and phases
PIC

- One problem how do we avoid PIC when ellipsis target multiple embedded phases
- I thought it appears that John seems to suspect that Susan sneezed and so did Bob [think it appears…]
- v head of think has e feature
- But what about all the embedded phases - do they all have E features?
  - If not then they cannot have PF deletion, PIC prevents it
  - If they do then why we cannot have spotty ellipsis
  - *I said that Susan thinks Bob left and so did Ken ~~say that Susan~~ think ~~Bob left~~

Timing

- Multiple phases require precise timing when
  - P/EPP edge features are triggered
  - Ellipsis freezes phase head
- For Bošković 2014 to work Ellipsis needs to precede cyclic move

When does cyclic move occur

- There is problem with this analysis
  - Cyclic move like any other needs to be structure building
  - Spec-CP licensed prior to next phase head being in structure
  - EPP/P feature needs to be uninterpretable - those need to be checked ASAP

Look Ahead

- Look ahead is a problem in derivational systems where operation in cycle n is motivated by cycles n+x
- Cyclic move
  - Choice of head with P/EPP features in fixed phase head system
  - In Bošković 2014 the problem is even more acute since a phase head is only known after phase is built
    - No tampering violated if we add features later

DP Phase

- Nominals are argued to be phases
- There are tell tale signs

CHol DP

- Ch’ol has postnominal possessors:

- Tyi yajl-i [DP i-plato aj-Maria]
  prf fall-intr 3s-plate cl-Maria
  ‘Maria’s plate fell.’

- (Ch’ol; Coon 2009:166)

Chol internal DP movement

- Wh-possessor moves inside pied-piped DP:

- [DP Maxki i-plato] tyi yajl-i?
  who3s-plate prf fall-intr
  ‘Whose plate fell?’

- *[DP I-plato maxki] tyi yajl-i?
  3s-plate who prf fall-intr
  ‘Whose plate fell?’

- (Ch’ol; Coon 2009:166) following van Urk 2020

Complement extraction S-C (Bošković 2014)

(1) a. * [NP Ovog studenta]i sam prona'la [NP sliku ti].

this student am found picture

'Of this student I found the picture.'

b. Prona'la sam [NP sliku [NP ovog studenta]].

found am picture this student

c. [NP Ovog studenta]i sam pronala [NumP mnogo / deset [NP slika t1].

this student am found many/ ten pictures

'Of this student I found many / ten pictures.'

Complement extraction English

(2) a. [Of this student] I found [a picture t1].

b. *[Picture of this student]1 I found [a t1].

Anti locality and phases

- Bošković (2014) attributes the extraction asymmetries between (1a) and (2a) to Anti-Locality (Abels 2003) that prevents movement of a phase complement of a phase head into the specifier of that phase head.

- The conclusion is that NPs are phases in Serbo-Croatian, but not in English, where the closest phase is a DP. Extraction of an NP-phase complement is not possible in S-C (2a), and extraction of a DP-phase complement is not possible in English (2b).

- What is possible is extraction of an NP complement that is itself a complement of a DP-phase, as in (2a), and extraction of an NP complement if there are additional projections such as quantifiers or numerals (1c).

Polish allows complement extraction with no visible additional structure

- In Polish (3a), we see an NP complement construction, where we can wh-extract the NP complement (3b).

(3)a.On kupił [[NP tomik [poezji angielskiej]] [w skórzanej okładce]].

He purchased volume poetry English in leather jacket

‘He purchased a volume of English poetry with a leather jacket.’

b. [Jakiej poezji]1 on kupił [[NP tomik t1][w skórzanej okładce]]?

What poetry he purchased volume in leather cover

‘What poetry did he purchase a volume of with a leather jacket?’

Polish allows complement extraction with no visible additional structure

- Example (3c) provides a standard constituency test that the extracted phrase is actually a complement of the NP since the head noun cannot be separated from the complement by an adjunct.

c. *On kupił [[NP tomik] [w skórzanej okładce] [poezji angielskiej]].

He purchased volume in leather jacket poetry English

*‘He purchased a volume in a leather jacket of English poetry.’

Polish is not wysiwyg

- There needs to be more functional architecture that allows overriding Anti-locality restrictions on extraction.
- Otherwise we would not have contrast between S-C and Polish

1 a. * [nP Ovog studenta]i sam prona'la [nP sliku ti].

this student am found picture

Of this student I found the picture.'

3 b.[Jakiej poezji]1 on kupił [[XP… [nP tomik t1][w skórzanej okładce]]]?

What poetry he purchased volume in leather cover

'What poetry did he purchase a volume of with a leather jacket?'

Left Branch Extraction

- English does not allow Left Branch Extraction as seen in (10) (Ross' 1967 Left Branch Constraint):

(10) a. *Whose1 did you see [t1 movie]?

b. *Beautiful 1 I saw [t1 houses].

Polish allows LBE violations like S-C

(11) a. Czyjego1 widziałeś [t1 ojca]? (Polish)

whose see father

'Whose father did you see?'

b. Piękne1 zobaczyłem [t1 domy].

Beautiful saw houses

'Beautiful houses, I saw.'

(12) a. Čijeg1 si vidio [t1 oca]? (Serbo-Croatian)

whose are seen father

'Whose father did you see?'

b. Lijepei je vidio [ti kuće].

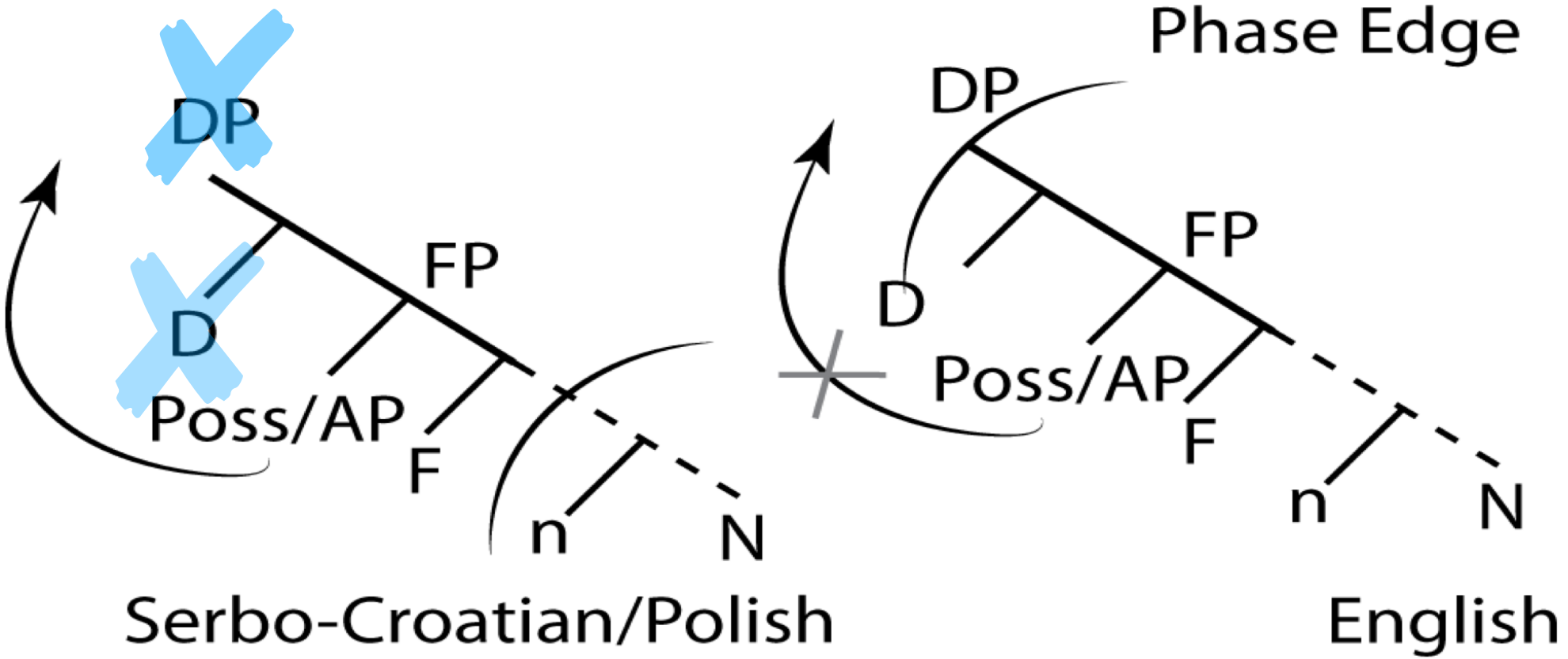
beautiful is seen houses

'Beautiful houses, he saw.'

LBE and Anti-locality

- LBE has been argued to reduce to Anti-Locality (Despić 2015).
- Serbo-Croatian and Polish allow LBE, since the nominal projection taking an AP or PossP modifier is a phase.
- However, in English, only the DP is a phase, and movement of pre-nominal modifiers is too local.

Polish patterns with S-C Wrt LBE



n=any functional head in the nominal domain

The contradiction

- Bošković (2014) suggests that LBE implies lack of DP since for nP to be a phase it has to be the topmost element in the nominal projection.

- However, Polish, with respect to LBE, patterns with Serbo-Croatian and not English.

- The data leads to a contradiction.

  - Complement extraction suggests that Polish has a DP Phase like English,

  - LBE suggests that Polish does not have a DP like Phase

Dynamic phases

- I assume that English and Polish, as well as Serbo-Croatian, have a DP layer.
  - In English the DP (or QP, if present) is a phase complement
  - In S-C some functional projection below DP is a phase complement (PC),
  - In Polish it can be either the DP or a lower head.
- A Phase Head ω is not associated with any lexical category, but only with semantic type.
- Phase complements are built via tucking in (Richards 1999) below ω
- Variation in the size of PC is a reflex of functional head movement to ω, which automatically assigns a category label.
- This extends the set of possible objects in the syntax from the set of categories in Baker (2003).
- The lack of any category label on ω will mean that at Spell-Out the topmost visible category will be the topmost Lexical/Functional Head

Tucking in Phase heads

How to build a nominal:

a. [ω [PC n N]]

b. [ω [PC ...Poss.....n...N]]

c. [ω [PC ...D...Poss...n...N]]

- Once a Phase Head emerges, subsequent merger or movement within a given extended domain will proceed through tucking in until Full Projection is achieved:

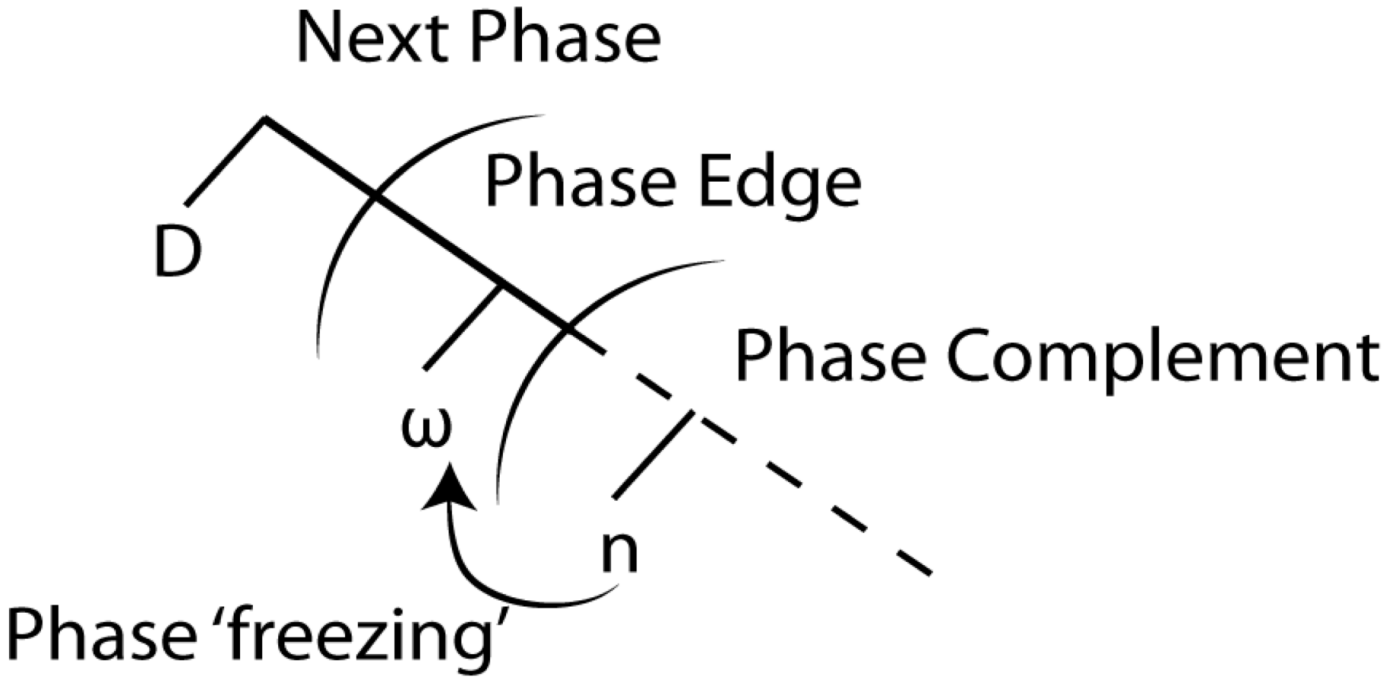
- (21) Full Projection. PC can expand until it utilizes all the functional heads of a given Lexical Projection.

- The above constraints derive the DP structure in English. A nominal starts projecting functional structure in its extended domain (Grimshaw 2000), ω emerges and a DP is built via tucking in.

- Phase Freezing allows a phase to be triggered prior to the exhaustion of all functional heads in a given Lexical Projection

Phase freezing

- English never freezes - whole lexical domain built, D moves to ω
- S-C always freezes - a head below D always moves to ω
- Polish can but does not have to freeze



S-C freezing; n=any eligible functional head in the nominal domain

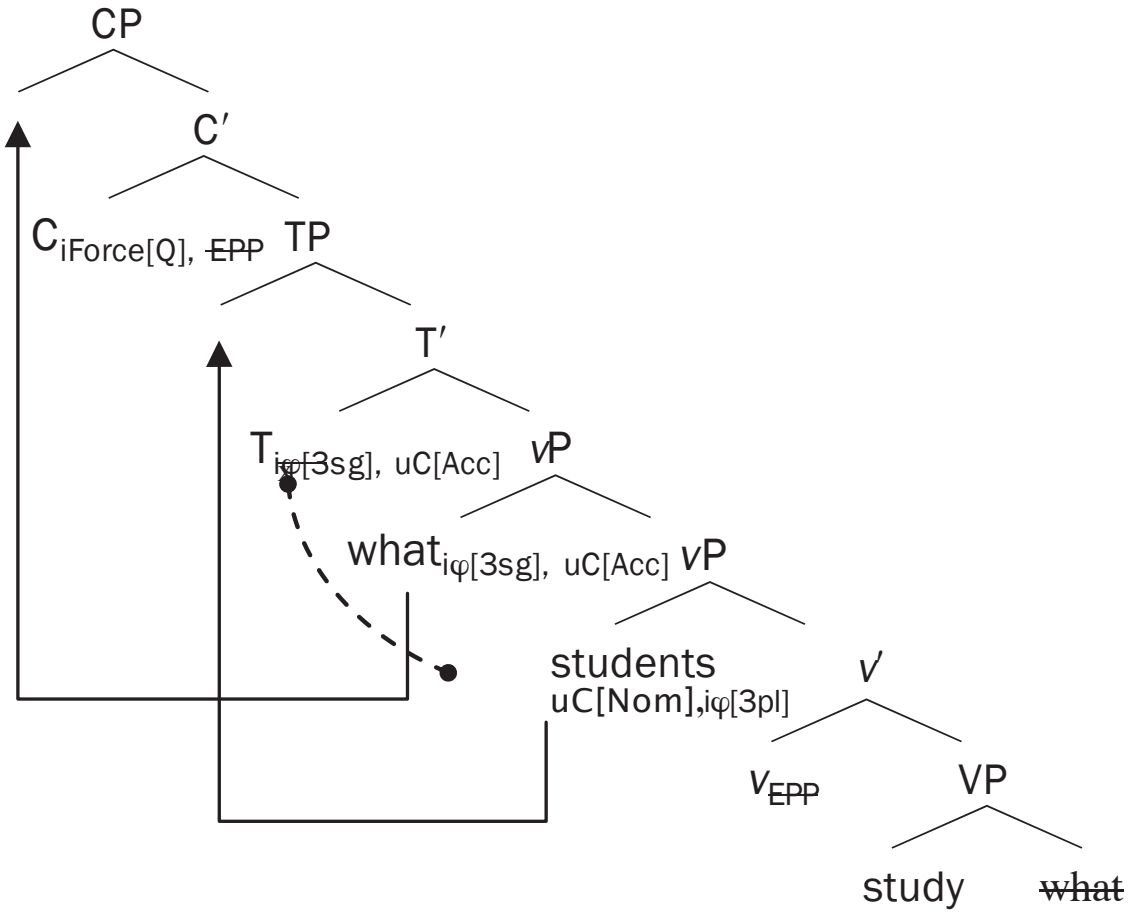
Advantages

- In this system Polish is not two languages: one having a DP layer which is a phase and one which does not have a DP
- Spell Out is triggered syntactically either via head movement (Phase Freezing) or via Internal Merge that exhausts a given Lexical Domain.
- Phase freezing is compatible with proposals that phase heads are interface heads that serve as interface information ‘portals’ (Kučerová 2018) -
- type of interface info that accessible is a function of what functional projection moves to ω, when D moves this is a regular DP, when x moves it is xP

Phases and Features

- Feature Inheritance
  - all uninterpretable features start on phase heads,
  - non-phase heads inherit uninterpretable features in the course of the derivation.

Equidistance solved



- T inherits phi features from C, both are probes (above diagram from Citko 2014)
- Wh does not block SU raising - since features of attracting both originate from C

Phases and Features

- Feature Inheritance
  - uF must spread from edge to nonedge (i.e. from C to T,v*to V, etc.)
- Value-Transfer Simultaneity
  - Value and Transfer of uFs must happen together.
- Phase Impenetrability Condition
  - The edge and nonedge (complement) of a phase are transferred separately.
  - (Mark Richards 2008: 566–8) via Citko 2014

Feature Inheritance

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- Value-Transfer Simultaneity
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- Phase Impenetrability Condition
    - The edge and non edge (complement) of a phase are transferred separately.
- Feature valuation and Transfer are simultaneous
- Uninterpretable features deleted at the time of Transfer via valuation
- Prior to transfer we know which features are interpretable, which are valued, and which are uninterpretable and to be valued.

Not all features need to be inherited

- Kpeinzen dan-k (ik) morgen goan. [West Flemish]
  I.think that-I (I) tomorrow go
  'I think that I'll go tomorrow.'(Haegeman1992)

- C agrees with embedded Subject

- Numerous cases of C exhibiting phi agreement.

Inheritance can come from different phase heads

- ECM constructions
- I want her to read a poem
- Matrix V inherits features from subordinate C

Semantic agreement Person

- Assumptions Kučerová & Szczegielniak 2022
  - A phase head is a ‘window’ to Interface valued features that trigger semantic agreement
  - Nominals that have a phase head (here D, but nothing hinges on this), have a **person feature** that requires syntax-semantics licensing for purposes of event and participant anchoring (Ritter and Wiltschko 2014 ,Zubizarreta and Pancheva 2017, Kučerová 2018).
  - Person can be licensed via C-I interface
- phase heads remain available for subsequent syntactic computations,
  - Person features at the edge of the phase are accessible to the syntactic derivation even after the corresponding phase has been transferred to the syntax-semantics interface.

Variable agreement
Pronominal behavior

(13) a. (Szanowny panie$_i$), ma pan$_i$
respected PAN.VOC.MASC.SG have.3MASC.SG pan.NOM.MASC.SG
papierosa?
cigarette.ACC

b. (Szanowny panie$_i$), masz pan$_i$
respected PAN.VOC.MASC.SG have.2MASC.SG pan.NOM.MASC.SG
papierosa?
cigarette.ACC

- PAN exhibits here semantic person agreement, mediated by via D phase head
- No extraction evidence for phase hood

D-Phase based agreement

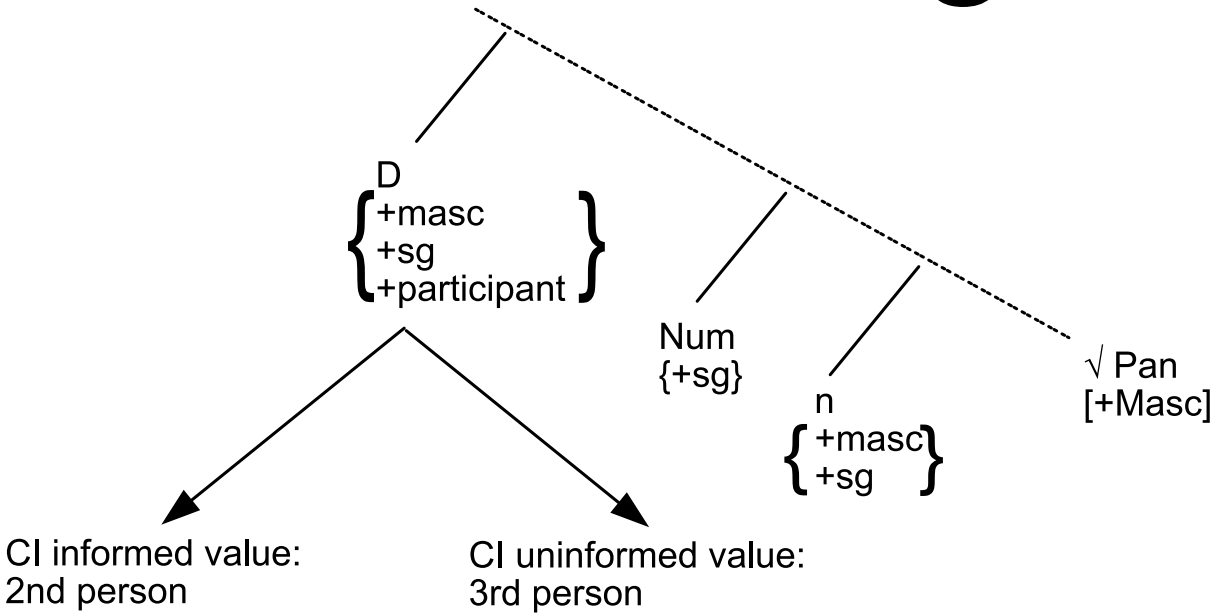


Figure 8: PAN 2nd/3rdpersonalternation

- When the feature reaches the interfaces, the syntax-semantics interface can link the narrow syntax feature to a [+Participant] representation.
- The syntax-morphology interface can then either
  - refer to the semantically informed value of the person feature,
  - or it can map the unvalued syntactic feature onto a default morphological realization.
- 3rd person default,
- 2person CI informed value

Gender Semantic Agree
Kučerová 2018, 2020

- il chirurg-o. è. andat-o
  the.m surgeon.m has gone.m
  ‘the (male) surgeon is gone’

- la chirurgo è andat-a
  the.f surgeon has gone.f
  ‘the female surgeon is gone’

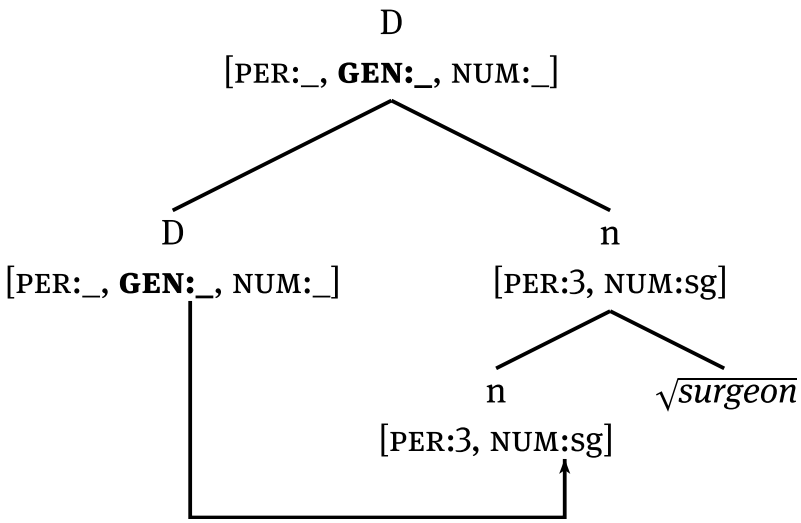
- il chirurgo è andat-a
  the.m surgeon has gone-f
  ‘the female surgeon is gone’

Unvalued features

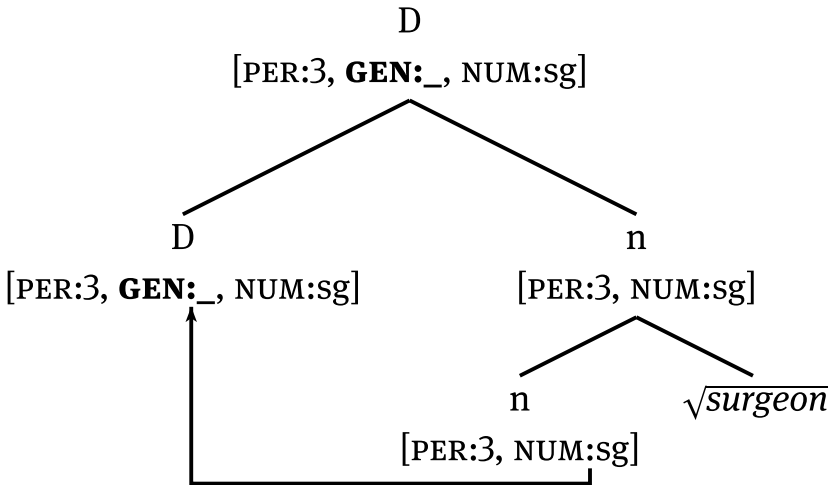
- D probes for the gender feature on n.
- no valued gender on n,
- the feature on D remains unvalued and this unvalued feature projects to the label in narrow syntax.
- Matching and valuation are dissociated

Valuation vs Agree

a. *Base generation & agree:*



b. *Valuation & syntactic labeling:*



From Kučerová 2020

- Matched but unvalued Gender is spelled out as default as Masc
- Matching and valuation are dissociated

Presuppositional Gender

- at labeling by the syntax-semantics interface associates narrow-syntax features from the label (the result of the narrow-syntax labeling) with a semantic index
- This index becomes part of the DP label during labeling by the syntax-semantics interface
- This index is interpreted in Semantics
- Phi features associated with index reflected in morphology

Deriving Feminine

- DP can be labeled both by features projected from narrow syntax and by the
- syntax-semantics interface,
- Morphological spell-out of the DP can be based
- on two different sources of information.
  - syntactic feature in the label, that is, the unvalued feature (MASC) or
  - on the presuppositional gender associated with the semantic index (FEM)
- Presuppositional Gender -> fem (Maximize presupposition).