

Two types of node-sprouting in Distributed Morphology: Evidence from Korean

BCGL 14

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Introduction

- Empirical domain
 - The discourse particle –yo in Korean
- Main points
 - Two types of –yo: obligatory and optional
 - Obligatory –yo is an agreement marker in relation to the addressee.
 - Optional –yo is a (clausal) concord marker.
 - Both types of –yo are post-syntactic elements, added by node-sprouting (or dissociated morpheme insertion).
 - Obligatory/agreemental –yo sprouts on C, licensed by the addressee argument.
 - Optional/concordial –yo sprouts on a prosodic boundary, licensed by obligatory –yo.

Outline

- Basic facts about –yo and previous analyses
- Two types of –yo: obligatory/agreemental and optional/concordial
- A DM analysis of –yo
 - Morpho-syntactic node-sprouting analysis for agreemental –yo
 - Prosodic node-sprouting analysis for concordial –yo

Basic facts

- The meaning of –yo (Choi 2016, Yun 1993)

(1) Inho-ka-yo onul-yo Seoul-eyse-yo
Inho-nom-yo today-yo Seoul-in-yo

yenghwa-lul-yo poass-e-yo.

movie-acc-yo saw-decl-yo

‘Inho saw a movie in Seoul today.’ (at-issue)

The speaker is being polite towards the addressee.

(not-at-issue)

Basic facts

- The distribution of –yo: almost any type of constituents can host –yo.

(2) Inho-ka-**yo** onul-**yo** Seoul-eyse-**yo**
Inho-nom-yo today-yo Seoul-in-yo

yenghwa-lul-**yo** poass-e-**yo**.

movie-acc-yo saw-decl-yo

‘Inho saw a movie in Seoul today.’

Basic facts

- The distribution of –yo: always followed by a pause (Lee & Park 1991, Yim & Dobashi 2016, a.o.)

(3) (Inho-ka-**yo**) **P** (onul-**yo**) **P** (Seoul-eyse-**yo**)
Inho-nom-yo today-yo Seoul-in-yo

P (yenghwa-lul-**yo**) **P** (poasse-**yo**).
movie-acc-yo saw-yo

‘Inho saw a movie in Seoul today.’

Basic facts

- Vocative and –yo (Choi 2016, Yun 1993, a.o.)

(4)	* Mina-ya, Mina-voc	Inho-ka Inho-nom	onul today	
	Seoul-eyse Seoul-in	yenghwa-lul movie-acc		poass-e- yo. saw-decl-yo
	'Mina, Inho saw a movie in Seoul today.'			

Basic facts

- Vocative and –yo (Choi 2016, Yun 1993, a.o.)

(5) Halapeci(*-ya), Inho-ka(-yo) onul(-yo)
grandfather-voc Inho-nom-yo today-yo

Seoul-eyse(-yo) yenghwa-lul(-yo) poass-e*(-yo).
Seoul-in-yo movie-acc-yo saw-decl-yo

‘Grandfather, Inho saw a movie in Seoul today.’

Previous analyses

- Lee (1976)
 - -yo is a morphological element added to certain parts of speech.
- Lee & Park (1991)
 - -yo is a syntactic element added to a “major constituent”, i.e., a phrasal category XP.
- Kim (1983)
 - -yo occurs between constituents in a loose syntactic relation.
- Yoon (1994)
 - -yo occurs with a unit which is separable.
- What is commonly noted in above works is the fact that –yo accompanies an intonational pause.

Yim & Dobashi (2016)

- The nominal in bold (*calmos-i*) can host –yo in (6) (Lee&Park 1991: 23), but not in (7) (Yoon 1994: 4g’).
- The addition of the adverb (*celtaylo*) results in the prosodic structure more compatible for –yo.

(6) ***/??**Kuken ku salam **calmos-i-yo** aniey-yo.
 that.topthat person mistake-nom-yo not.be-yo
 ‘That isn’t the man’s mistake.’

(7) Kuken ku salam **calmos-i-yo** celtaylo aniey-yo.
 that.topthat person mistake-nom-yo at.all not.be-yo
 ‘That isn’t the man’s mistake whatsoever.’

Yim & Dobashi (2016)

- Proposal: –yo appears at the edge of a prosodic phrase.
- Unmarked prosodic derivation of SOV word order is derived as follows, assuming direct syntax-prosody mapping (Dobashi 2003, 2009),
 - $[_{CP} [_{TP} \text{Subject} [_{VP} [_{VP} \text{Object V}] v] T] C]$
 - Step 1: Spell-out of VP results in (V) with the object left for the next spell-out
 - Step 2: Spell-out of TP results in (Obj) with the subject left for the next spell-out
 - Step 3: Spell-out of the root results in (Subj)
 - Step 4: (Subj) (Obj) (V)
 - Step 5: (Subj) ((Obj) (V))

Yim & Dobashi (2016)

- Prosodic constraint: –yo appears at the edge of a prosodic phrase.

- *Well-formed prosodic derivation*

Syntax:	Subj-yo	Obj	V-yo
		↓	
ϕ -formation:	$\phi(\text{Subj-}\mathbf{yo})$	$\phi(\text{Obj})$	$\phi(\text{V-}\mathbf{yo})$
		↓	
ι -formation:	$\iota(\phi(\text{Subj-}\mathbf{yo}))$	$\iota(\phi(\text{Obj}))$	$\phi(\text{V-}\mathbf{yo})$

Yim & Dobashi (2016)

- Proposal: –yo appears at the edge of a prosodic phrase.
- *Ill-formed prosodic derivation*

Syntax:	Subj-yo	Obj-yo	V-yo
		↓	
ϕ -formation:	$\phi(\text{Subj-}\mathbf{yo})$	$\phi(\text{Obj-}\mathbf{yo})$	$\phi(\text{V-}\mathbf{yo})$
		↓	
ι -formation:	$\iota(\phi(\text{Subj-}\mathbf{yo}))$	$\iota(\phi(\text{Obj-}\mathbf{yo}))$	$\phi(\text{V-}\mathbf{yo})$

Problems of Yim & Dobashi (2016)

- First, the prosodic constraint on –yo serves as a PF filter.
- Second, –yo is banned to occur at a prosodic boundary created after a vocative:

(8)	* _i (_φ (Halapeci-yo)),	Inho-ka-yo	onul-yo
	grandfather-yo	Inho-nom-yo	today-yo
	Seoul-eyse-yo	yenghwa-lul-yo	poass-e-yo.
	Seoul-in-yo	movie-acc-yo	saw-decl-yo

Interim summary

- –yo expresses politeness or honorification towards the addressee.
- Two types of –yo: obligatory –yo and optional –yo.
- Its distribution is prosodically governed: the position of –yo coincides with a prosodic boundary, except for [vocative + -yo] combo.

Proposals

- Obligatory –yo is a politeness/honorification marker in an agreement relationship with the addressee.
- Optional –yo is a (clausal) concord marker.
- Both types of –yo is post-syntactically added via node-sprouting (or dissociated morpheme insertion).

obligatory –yo vs. optional –yo 1: optionality

- (Subject-verb) agreement is obligatory.

(9) John go*(**es**) to school by bus.

(10) Halapeci, Inho-ka-yo onul-yo
grandfather Inho-nom-yo today-yo

Seoul-eyse-yo yenghwa-lul-yo poass-e*(-**yo**).
Seoul-in-yo movie-acc-yo saw-decl-yo

‘Grandfather, Inho saw a movie in Seoul today.’

obligatory –yo vs. optional –yo 1: optionality

- Concord is optional in some languages, e.g., Nez Perce (Deal 2010).

(11) '-e-pewi-tx **yoosyoos-na** **wixsilikeecet'es-ne**
3OBJ-look.for-IMPER.PL blue-OBJ chair-OBJ
'I am looking for the blue chair.'

(12) '-e-pewi-tx **yoosyoos** **wixsilikeecet'es-ne**
3OBJ-look.for-IMPER.PL blue chair-OBJ
'Look for the blue chair.'

obligatory –yo vs. optional –yo 1: optionality

- Concord is optional in some languages, e.g., Nez Perce (Deal 2010).

(13) Halapeci, Inho-ka(-yo) onul(-yo)
grandfather Inho-nom-yo today-yo

Seoul-eyes(-yo) yenghwa-lul(-yo) poass-e*(-yo).
Seoul-in-yo movie-acc-yo saw-decl-yo

‘Grandfather, Inho saw a movie in Seoul today.’

obligatory –yo vs. optional –yo 2: one vs. many

- Agreement is marked once.

(14) John go*(**es**) to school by bus.

(15) Halapeci, Inho-ka-yo onul-yo
grandfather Inho-nom-yo today-yo

Seoul-eyse-yo yenghwa-lul-yo poass-e*(-**yo**).
Seoul-in-yo movie-acc-yo saw-decl-yo
‘Grandfather, Inho saw a movie in Seoul today.’

obligatory –yo vs. optional –yo 2: one vs. many

- Concord can be marked multiple times (Norris 2014)

(16) kōik see ilus maailm
all.**nom** this.**nom** beautiful.**nom** world.**nom**
'all this beautiful world'

(17) Halapeci, Inho-ka-**yo** onul-**yo**
grandfather Inho-nom-yo today-yo

Seoul-eyse-**yo** yenghwa-lul-**yo** poass-e-yo.
Seoul-in-yo movie-acc-yo saw-decl-yo
'Grandfather, Inho saw a movie in Seoul today.'

obligatory –yo vs. optional –yo 3: parts of speech of the host

- Agreement is marked on verbs.

(18) John go*(**es**) to school by bus.

(19) Halapeci, Inho-ka-yo onul-yo
grandfather Inho-nom-yo today-yo

Seoul-eyse-yo yenghwa-lul-yo poass-e*(-**yo**).
Seoul-in-yo movie-acc-yo saw-decl-yo

‘Grandfather, Inho saw a movie in Seoul today.’

obligatory –yo vs. optional –yo 3: parts of speech of the host

- Concord is expressed on materials of various parts of speech.

(20) kōik see ilus maailm
all.**nom** this.**nom** beautiful.**nom** world.**nom**
'all this beautiful world'

(21) Halapeci, Inho-ka-**yo** onul-**yo**
grandfather Inho-nom-yo today-yo

Seoul-eyse-**yo** yenghwa-lul-**yo** poass-e-yo.
Seoul-in-yo movie-acc-yo saw-decl-yo
'Grandfather, Inho saw a movie in Seoul today.'

obligatory –yo vs. optional –yo 4: syntactic status of the host

- Agreement is marked on the head.

(22) John go*(**es**) to school by bus.

(23) Inho-ka onul yenghwa-lul poass-e-yo.
Inho-nom today movie-acc-yo saw-decl-yo
'Inho saw a movie today.'

obligatory –yo vs. optional –yo 4: syntactic status of the host

- Concord can be marked on constituents of various syntactic status.

(24) kōik see ilus maailm
all.**nom** this.**nom** beautiful.**nom** world.**nom**
'all this beautiful world'

(25) Halapeci, Inho-ka-**yo** onul-**yo**
grandfather Inho-nom-yo today-yo

Seoul-eyse-**yo** yenghwa-lul-**yo** poass-e-yo.
Seoul-in-yo movie-acc-yo saw-decl-yo
'Grandfather, Inho saw a movie in Seoul today.'

obligatory –yo vs. optional –yo 5: feature origin

- Agreement marks a relationship between two different extended projections. That is, the agreeing feature originates externally.

(26) **John** goes to school by bus.

(27) **Halapeci,** Inho-ka-yo onul-yo
grandfather Inho-nom-yo today-yo

Seoul-eyse-yo yenghwa-lul-yo poass-e-**yo**.
Seoul-in-yo movie-acc-yo saw-decl-yo
'Grandfather, Inho saw a movie in Seoul today.'

obligatory –yo vs. optional –yo 5: feature origin

- Concord marks a relationship between an extended projection and its members. That is, the agreeing feature originates internally.

(28) kōik see ilus mailm
 all.**nom** this.**nom** beautiful.**nom** world.**nom**
 ‘all this beautiful world’

(29) Halapeci,
 grandfather

 Seoul-eyse-**yo**
 Seoul-in-yo
 ‘Grandfather, Inho saw a movie in Seoul today.’

Inho-ka- yo	onul- yo
Inho-nom-yo	today-yo
yenghwa-lul- yo	poass-e- yo .
movie-acc-yo	saw-decl-yo

obligatory –yo vs. optional –yo: summary

	Agreement	obligatory –yo	Concord	optional –yo
optionality	obligatory	obligatory	optional	optional
part of speech	verb	verb	many	many
syntactic status	head	head	head specifier adjunct	head complement specifier adjunct
Number	1	1	many	many
feature origin	external	external	internal	internal

Why is –yo post-syntactic?

- If –yo is present in syntax, mismatches of –yo between antecedent and ellipsis site should be impossible under syntactic-identity theories of ellipsis (e.g., Merchant 2013).
- Light verb stranding ellipsis:

(30) Student: Inho-nun ku chayk-ul-yo kwuip hayss-e-yo.
Inho-top the book-acc-yo purchase did-decl-yo
'Inho bought the book.'

Prof.: Mina-nun <ku chayk-ul kwuip> an hayss-e.
Mina-top the book-acc purchase neg did-decl
'Mina didn't (buy the book).'

Why is –yo post-syntactic?

- Assuming cyclic spell-out derivation, when the Spell-Out domain containing the object is spelled-out, neither the obligatory –yo nor the vocative is present in the syntax. How can the optional –yo below be licensed in syntax?

(31) **Halapeci,** Mina-nun ku chayk-ul-**yo** cengmal
grandfather Mina-top the book-acc-yo really

sass-e-**yo**.

bought-decl-yo

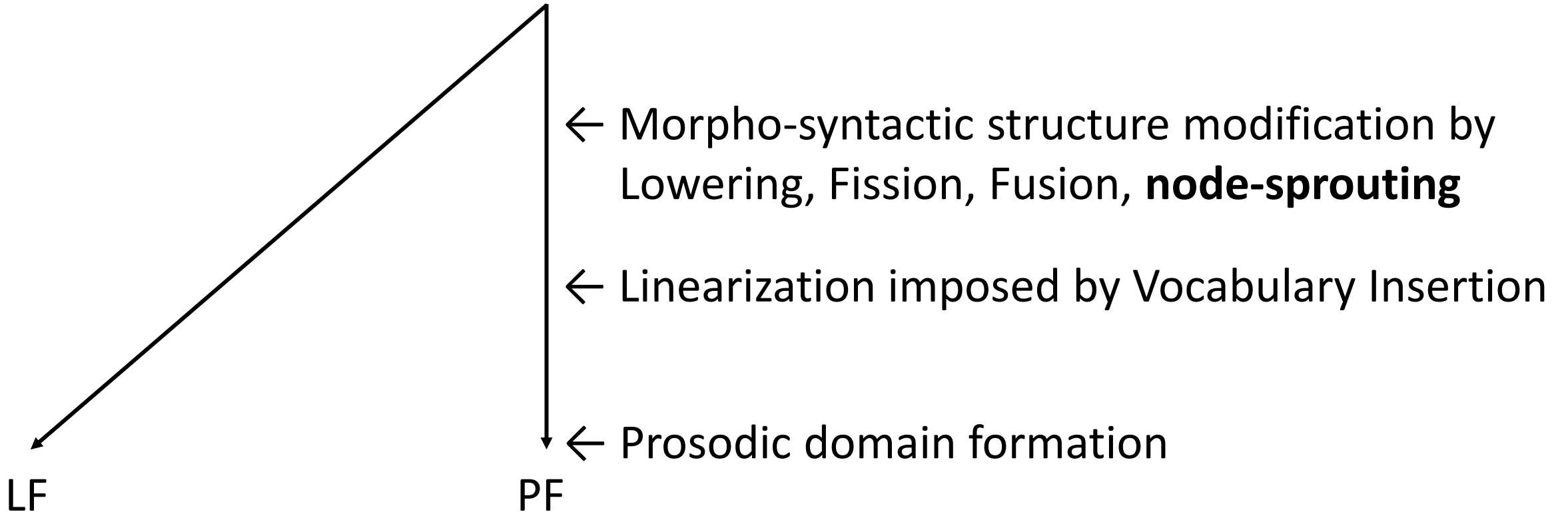
‘Mina really bought the book.’

A DM analysis of –yo

- Framework: Distributed Morphology (Halle & Marantz 1993)
- Post-syntactic treatment of agreement:
 - node-sprouting (Choi & Harley 2019) for subject honorification in Korean (a.k.a. dissociated morpheme insertion (Halle & Marantz 1993, Embick 1997, a.o.)

Distributed Morphology

Syntactic unit spelled-out by phase

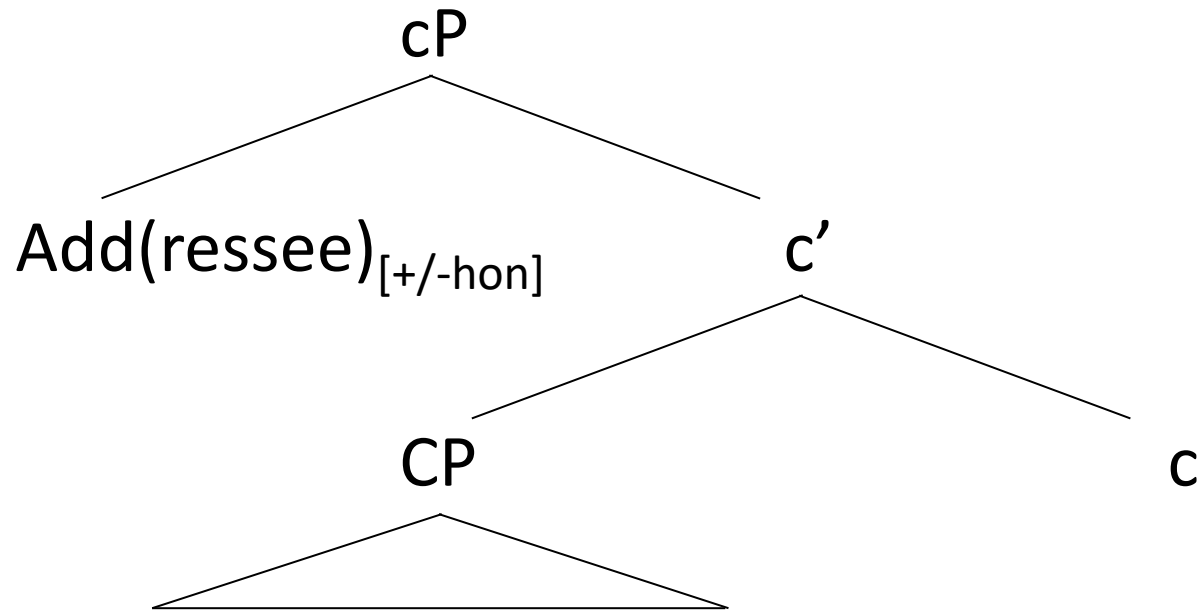


Node-sprouting

- Choi & Harley (2019): subject honorification marker –si is a post-syntactic element added to the morpho-syntactic structure by the rule below:
- *Hon(orification)-sprouting rule*:
$$v \rightarrow [v \text{ Hon}] / [NP_{[+\text{hon}]} \dots [\dots _ \dots]]$$
- I call this ‘morpho-syntactic node-sprouting’ and extend it to the case of politeness agreement between obligatory –yo and the addressee.

Morpho-syntactic node-sprouting

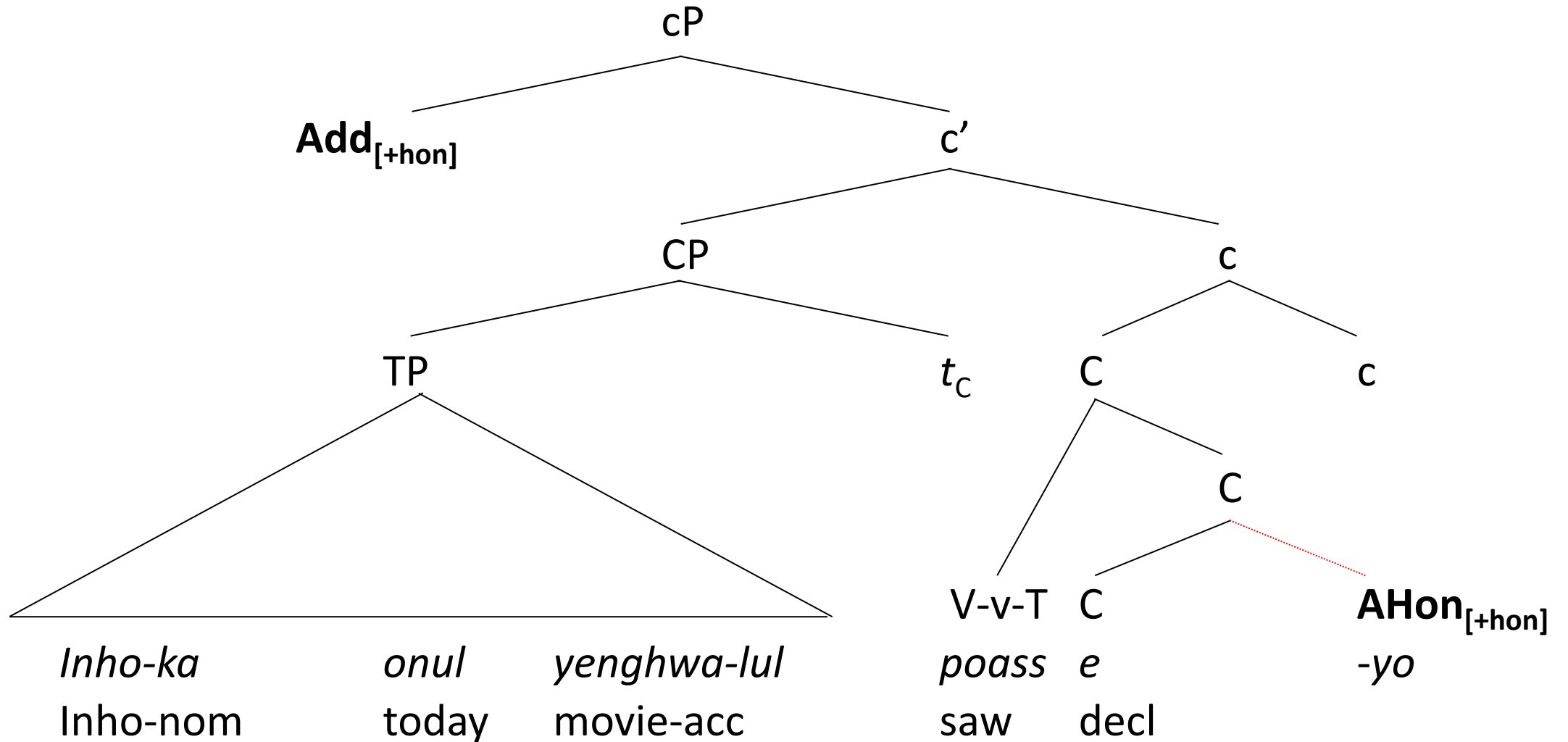
- CP is further embedded by cP (Portner et al. 2019) encoding pragmatic information (e.g., speaker-addressee relationship) (see also Speech Act Phrase analysis by Choi (2016) and Discourse Sentence analysis by Yun (1993)).



Morpho-syntactic node-sprouting

- A functional head AHon(Addressee Honorification) sprouts on C in the presence of a c-commanding honorific addressee argument in Spec, cP.
- *AH-sprouting rule for the agreemental -yo:*
$$C \rightarrow [C \text{ AHon}] / [\text{Add}_{[+\text{hon}]} \dots [\dots \text{ __ } \dots]]$$

Morpho-syntactic node-sprouting



Prosodic node-sprouting

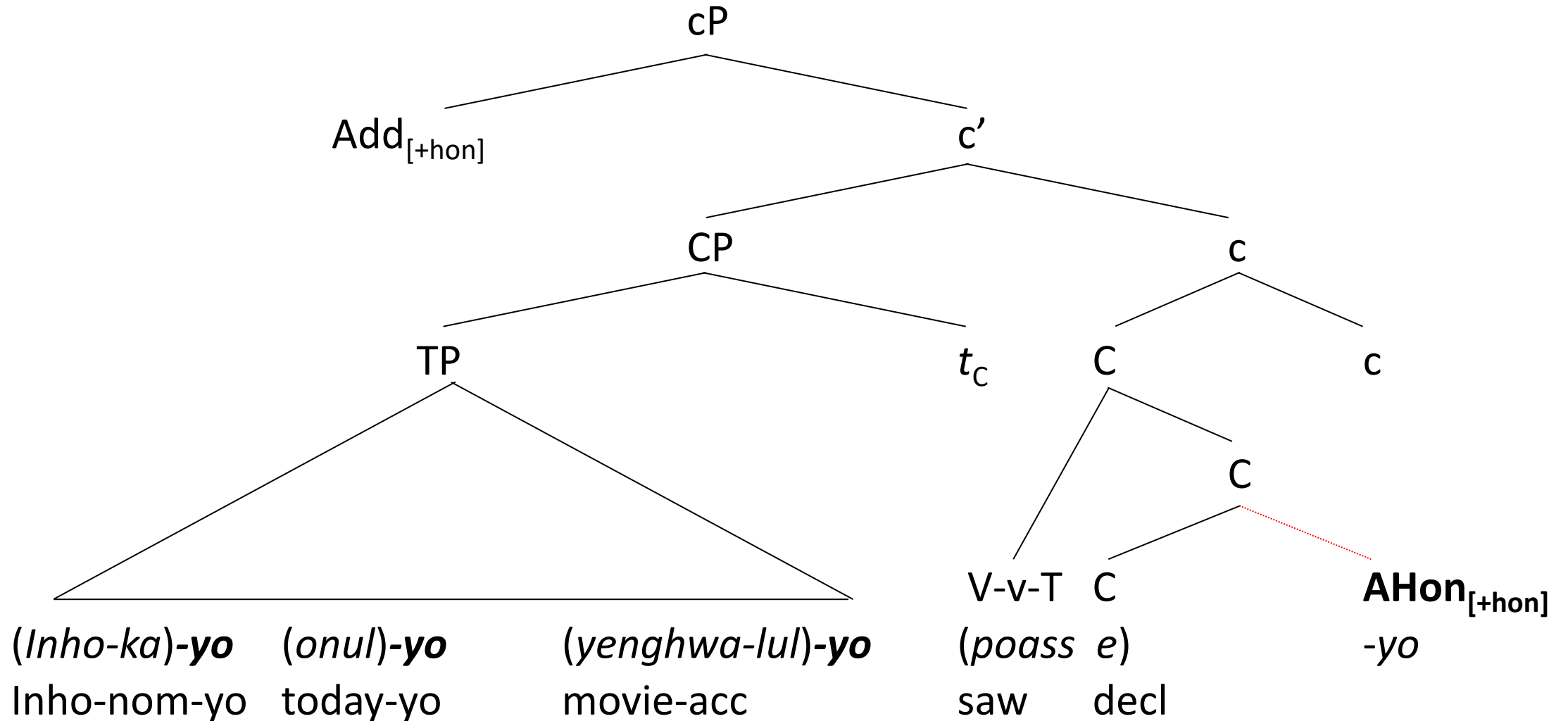
- Prosodic domains are formed following Linearization.
- The AHon, which has sprouted on C, licenses AHon-sprouting at the edge of prosodic constituent within its c-commanding domain.
- ***AHon-sprouting rule for the optional -yo:***
$$p \rightarrow [p \text{ AHon}^0] / \dots [\dots (([\dots _])_{\phi})_l \dots \text{AHon}]_{cP}$$
- Interaction between morpho-syntactic feature and phonological content is not unprecedented (e.g., Chung 2009, Kandybowicz 2007).

Prosodic node-sprouting

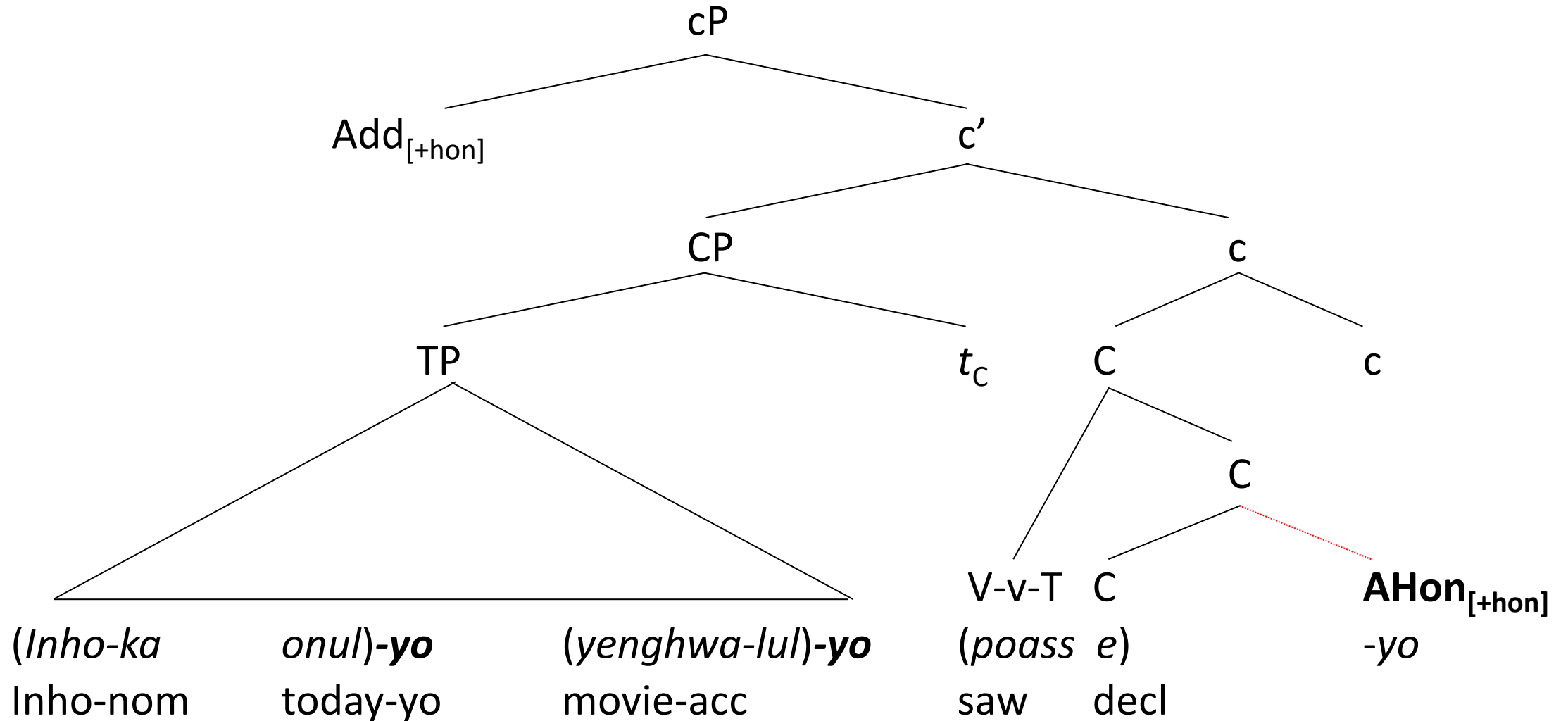
- Non-deletion view of Vocabulary Insertion (Embick 2015) is adopted.
 - Vocabulary Insertion does not involve the deletion of formal features of a terminal node.
- We can explain that not only the obligatory –yo but also –supnita can license optional –yo.

(1)	Halapeci, grandfather	Inho-ka(-yo) Inho-nom-yo	onul(-yo) today-yo
	Seoul-eyes(-yo) Seoul-in-yo	yenghwa-lul(-yo) movie-acc-yo	poass*(-supnita). saw-supnita
	'Grandfather, Inho saw a movie in Seoul today.'		

Prosodic node-sprouting



Prosodic node-sprouting

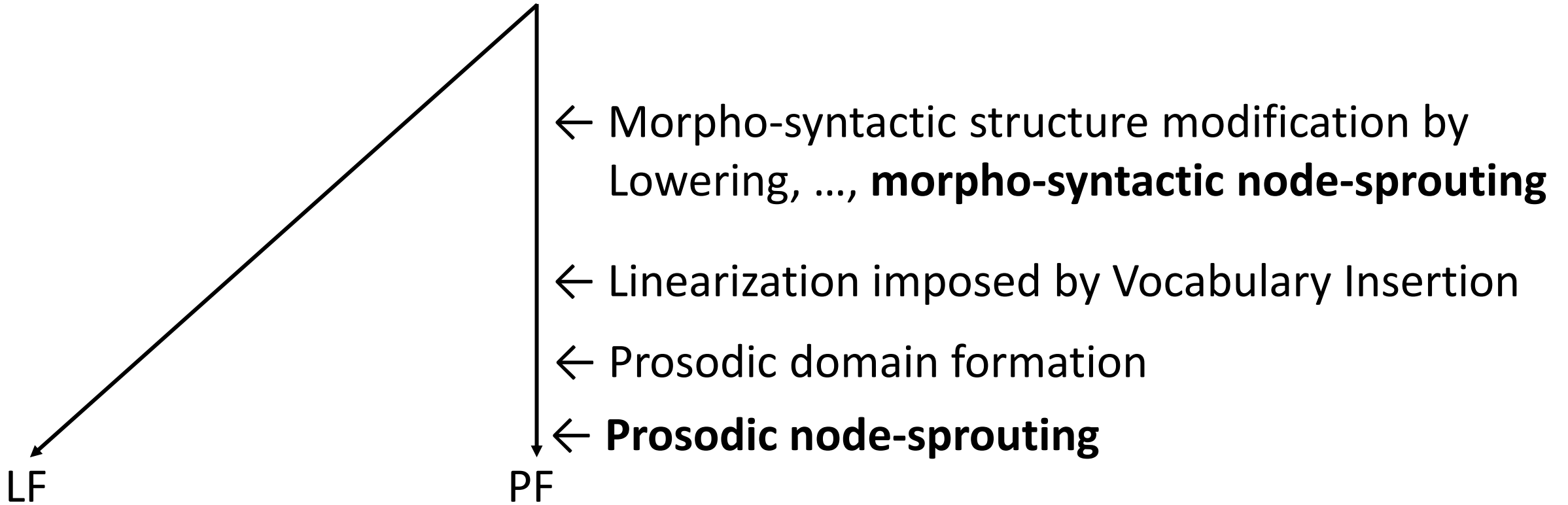


Prosodic node-sprouting

- The proposed analysis captures the dependent relationship between the agreemental –yo and the concordial –yo.
- It also prevents the concordial –yo from occurring inside a prosodic boundary. Thus, no need to filter out ungrammatical outcomes.
- The fact that vocatives cannot host –yo follows since vocatives do not meet the structural condition of AHon-sprouting rule.

Distributed Morphology

Syntactic unit spelled-out by phase



Summary

- The obligatory –yo is an agreement marker, which sprouts on C licensed by an addressee argument.
- The optional –yo is a concord marker, which sprouts on a prosodic unit licensed by the obligatory –yo.

Selected references

- Choi, Jaehoon. 2016. The discourse particle *-yo* in Korean: Its implications for the clausal architecture. *Rivista di Grammatica Generativa* 38: 65-73.
- Choi, Jaehoon & Heidi Harley. 2019. Locality domains and morpho-syntactic rules. *Natural Language and Linguistic Theory* 37: 1319-1365.
- Embick, David. 2015. *The Morpheme: A Theoretical Introduction*. De Gruyter Mouton.
- Lee, Chungmin, & Sunghyun Park. 1991. ‘-Yo’ *ssuimuy kwucowa kinung* [The structure and function of the mid-sentential *-yo* construction]. *Linguistic Journal of Korea* 16: 361–389.
- Yim, Changguk, & Yoshihito Dobashi. 2016. A prosodic account of *-yo* attachment in Korean. *Journal of East Asian Linguistics* 25: 213-241.
- Yoon, Suk-min. 1994b. ‘-Yo’uy *tamhwa kinung* [The discourse function of *-yo*]. *Text Linguistics* 2: 459-484.
- Yun, Sung Kyu. 1993. *Honorific agreement*. Ph. D. thesis. University of Hawaii.
- Portner, Paul, Miok Pak, & Raffaella Zanuttini. 2019. The speaker-addressee relation at the syntax-semantics interface. *Language* 95: 1–36.