Root suppletion and phrasal lexicalisation: support from Korean

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Morpho-Syn Syndicate Speaker Series & Reading Group
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Outline

Outline

A late insertion model of grammar

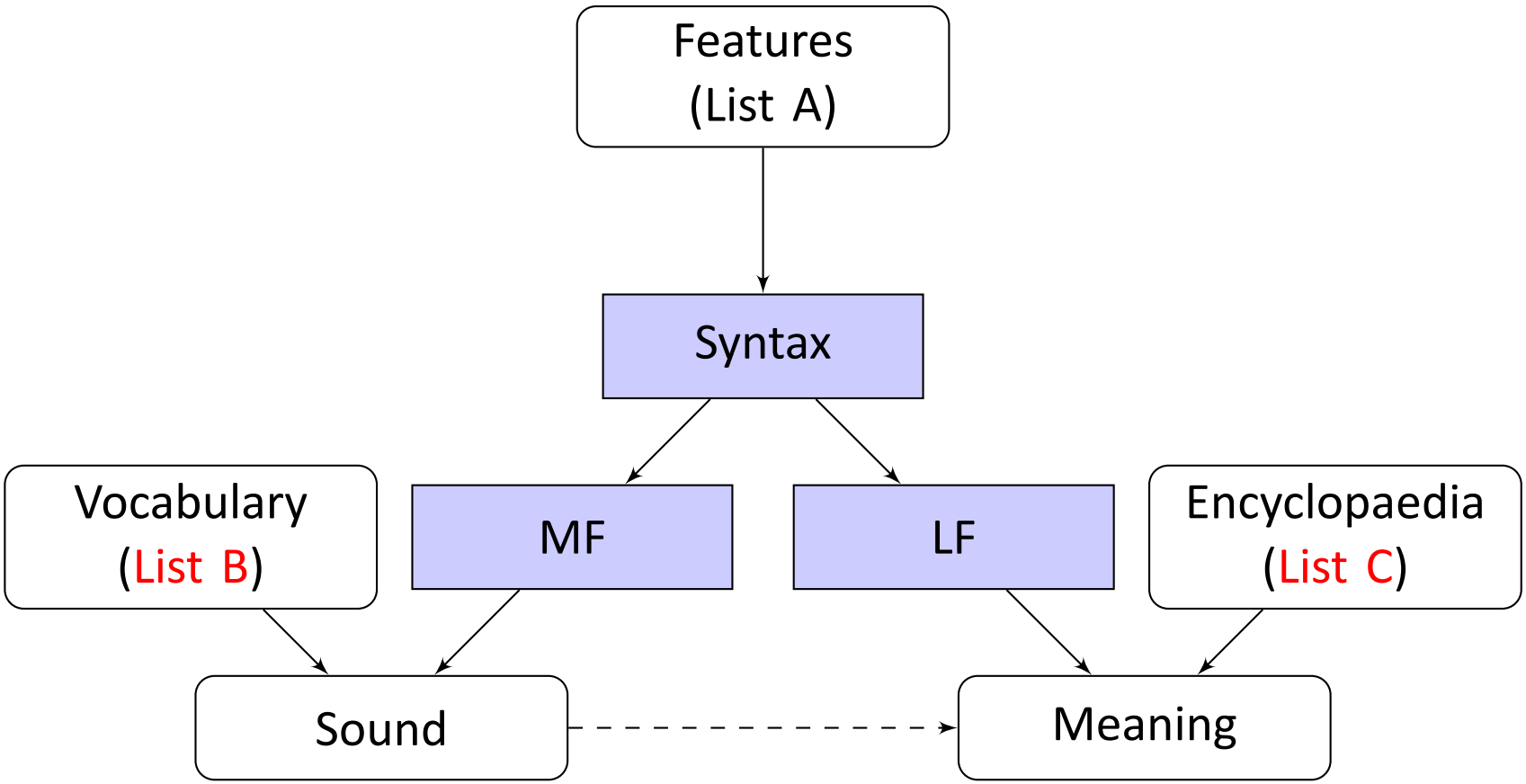


Figure 1: The DM model as in Harley & Noyer (1999)

Late Insertion

- Two advantages of Late Insertion models:

1. Universality
2. Modularity

Late Insertion

- Two advantages of Late Insertion models:

1. Universality
2. Modularity

(1) *Strong Modularity Thesis* (SMT)
Syntactic representations only contain entities that are relevant for the application of syntactic principles and operations.

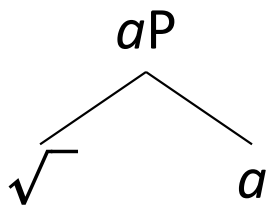
Goals

- Discuss a potential challenge for Universality and SMT having to do with the treatment of suppletion
- Propose an alternative treatment in terms of phrasal lexicalisation
- Discuss two potential problems for phrasal lexicalisation:
  - Multiple exponence
  - Non-local allomorphy

Outline

The challenge

(2) a.



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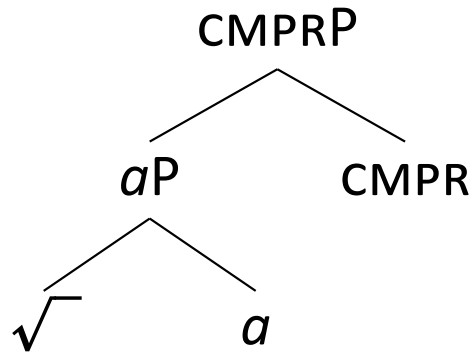


(3) a. $\sqrt{}$ ⇔ *good, nice, happy, small, old, …*

b. $\sqrt{}$ ⇔ *bett- / ___] a]* CMPR]

c. *a* ⇔ ∅

d. CMPR ⇔ *-er*

The challenge

- Two solutions:
  - suppletive adjectives belong to the functional vocabulary (List A), see (4) (Marantz 1997)
  - roots are individuated by means of an index, see (5) (Pfau 2000; Harley 2014)

(4) a. [EVAL:POSITIVE] $\Leftrightarrow$ *bett-* / ___] *a*] CMPR]
b. [EVAL:POSITIVE] $\Leftrightarrow$ *good*

(5) a. $\sqrt{153}$ $\Leftrightarrow$ *bett-* / ___] *a*] CMPR]
b. $\sqrt{153}$ $\Leftrightarrow$ *good*

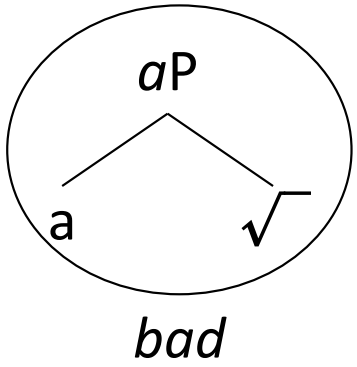
The challenge

- Marantz' solution does not generalise to all cases of suppletion (Harley 2014).
- Harley's violates SMT: the index on the root is not relevant to the syntactic computation.
- Harley's also raises questions about universality:
  - is the set of all indexed roots $\{\sqrt{1}, \ldots, \sqrt{n}\}$ the same for all languages?
  - do we have indexed roots for cultural artefacts like books, bicycles, smartphones, …?

Outline

Phrasal lexicalisation and pointers

(6) a.



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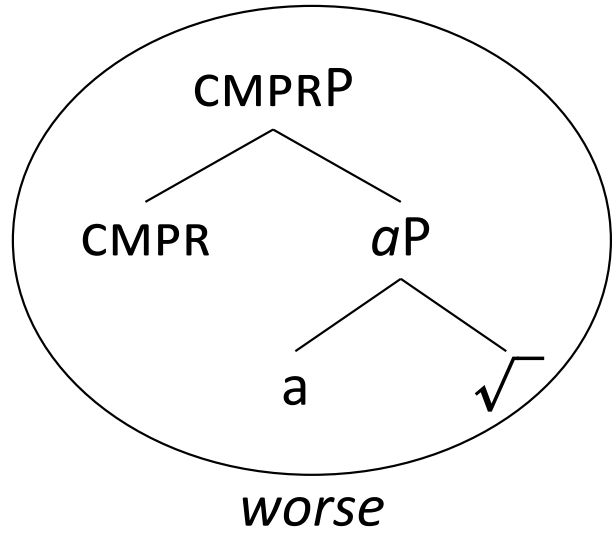
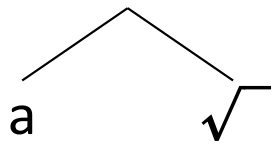
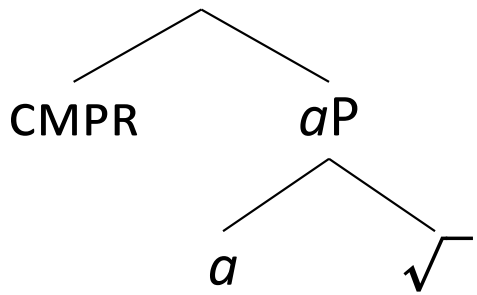


Phrasal lexicalisation and pointers

(7) aP ⟺ *bad, good, nice, kind, small, intelligent, …*

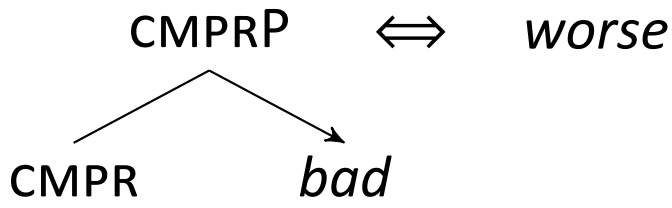


(8) CMPRP ⟺ *worse*



Phrasal lexicalisation and pointers

(9)



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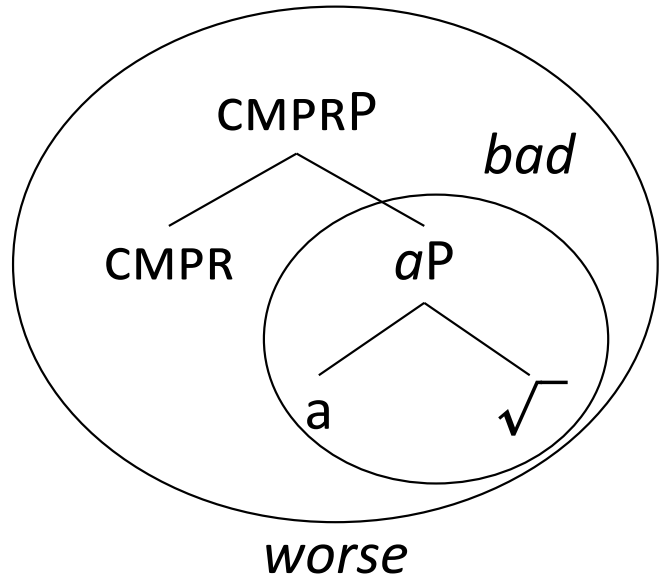
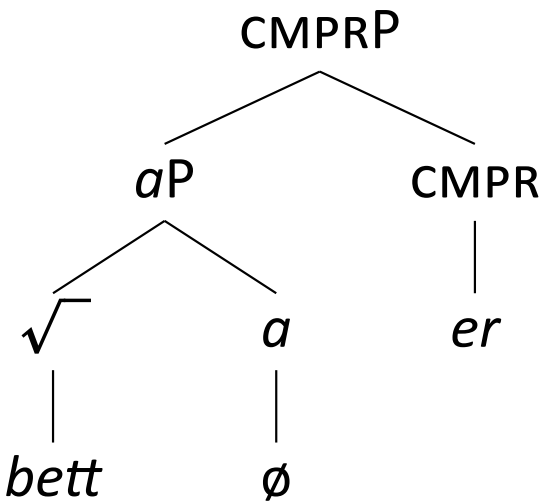


Outline

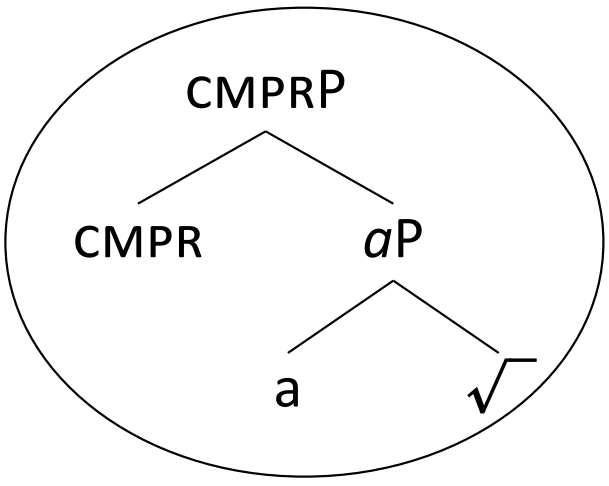
Multiple exponence

(11)



Multiple exponence

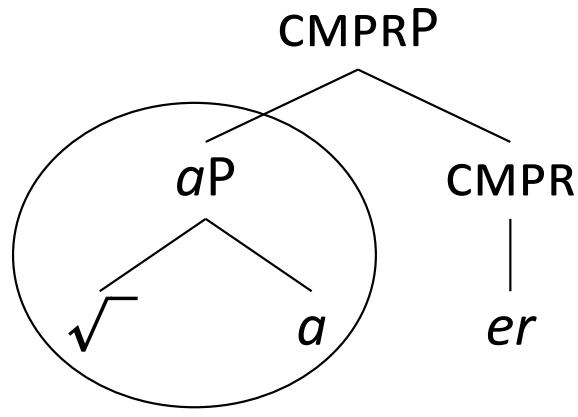
(12)



bett

?-*er*?

(13)



?*bett*?

?*good*?

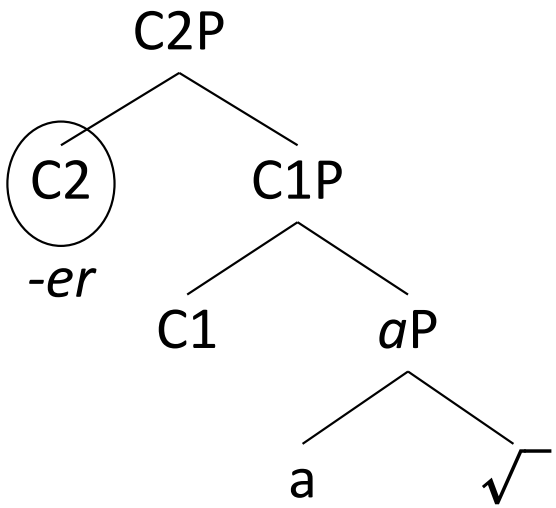
Full vs reduced marking of the comparative

(14)

	reduced	full
CMPR	-er	mo-re
SPRL	-est	mo-st

Splitting CMPR

(15)



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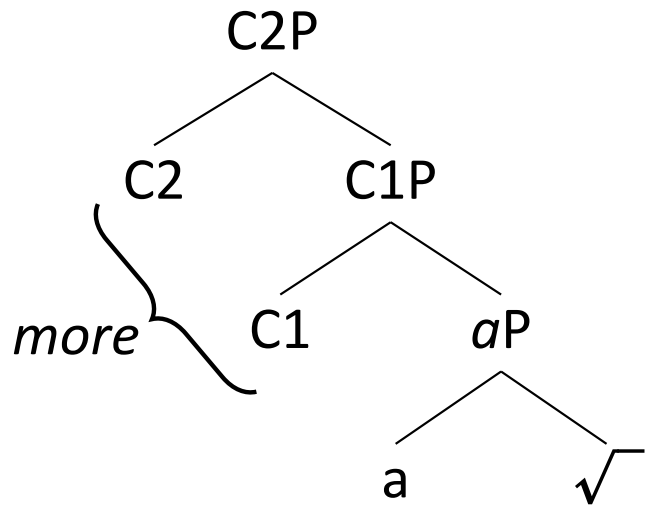
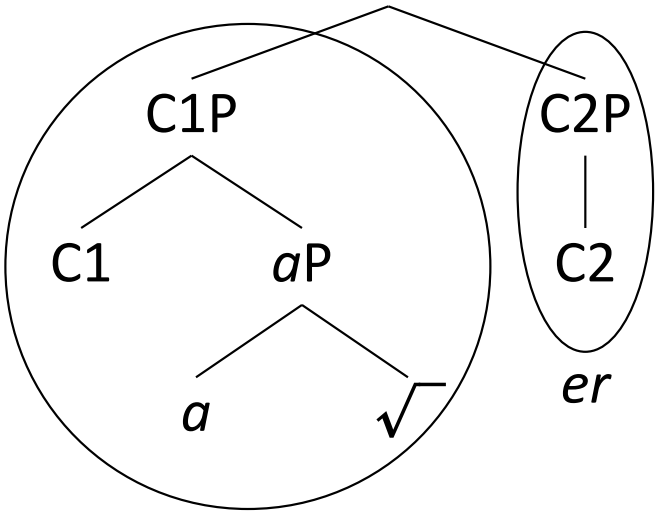


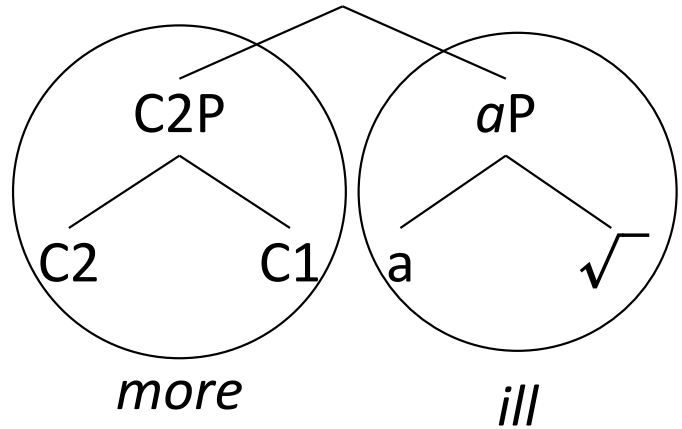
Large root, small affix

(17)



smart
old
nice
…

(18)

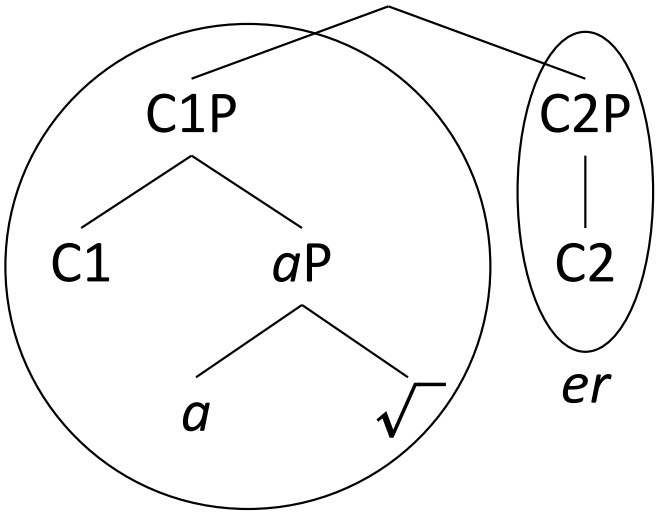


more

ill
intelligent
severe
…

Large root, small affix

(17)



smart
old
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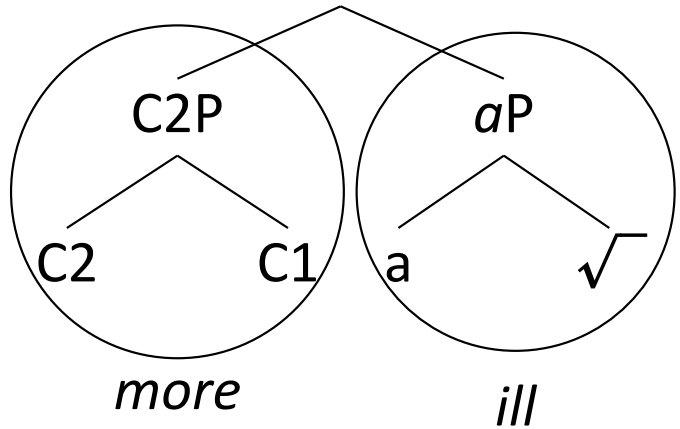
…

(18)



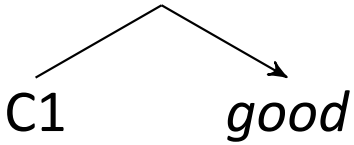
more

ill
intelligent
severe
…

(19) *The Superset Principle* (Starke 2009)
A lexically stored tree L matches a syntactic node S iff L contains the syntactic tree dominated by S as a subtree

Multiple exponence again

(20) C1P $\Leftrightarrow$ *bett*



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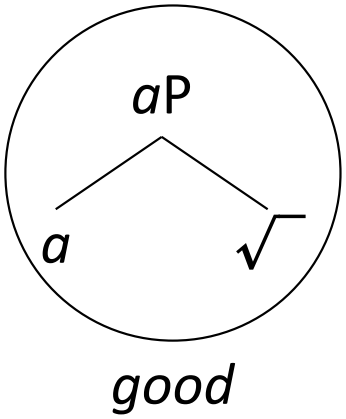

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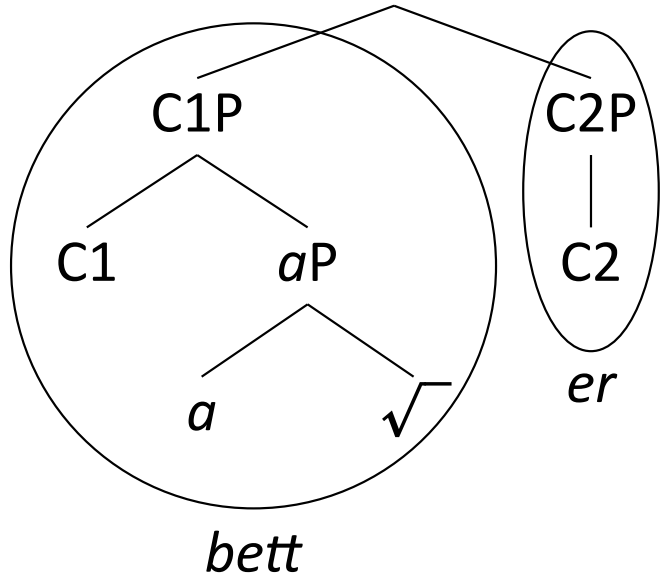
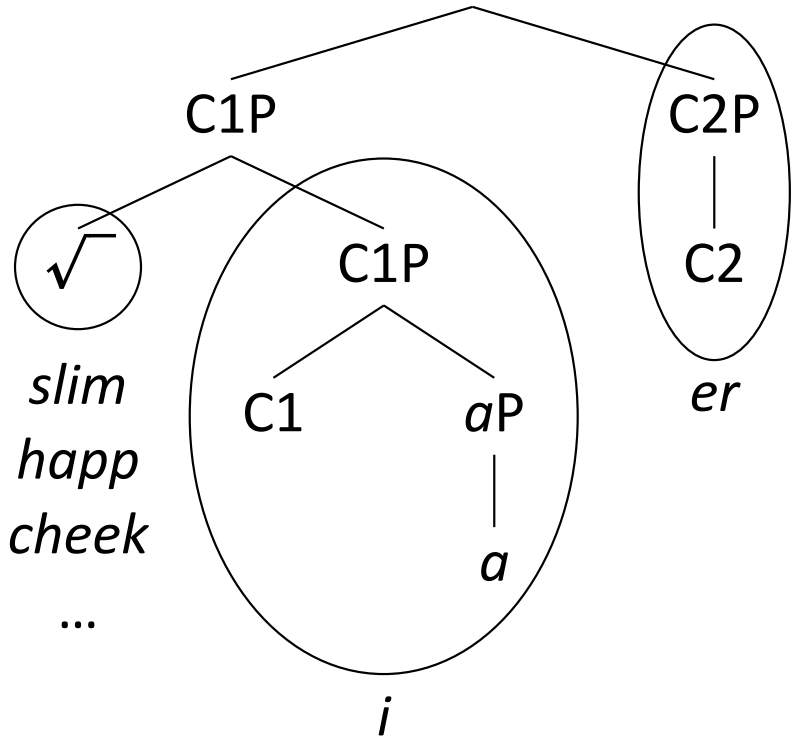


Multiple exponence

(23) a. *slim-i-er, happ-i-er, cheek-i-er, …*

b.

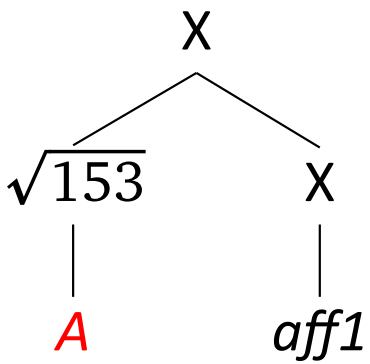


Outline

Non-local allomorphy

- Choi & Harley (2019) discuss a case from Korean where root allomorphy is conditioned by a head across an intervening affix.

(24) a.



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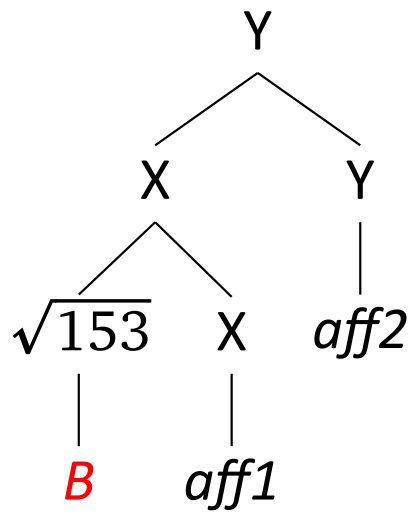


Non-local allomorphy

- what appears to be nonlocal is only so under certain assumptions about the structure
- if we enrich the structure, what looked like a case of nonlocal allomorphy starts looking like local allomorphy

Outline

A Korean paradox

(25)

	regular pattern	$\sqrt{\text{EXIST}}$	$\sqrt{\text{KNOW}}$
a.	$\sqrt{X}$	iss	al
b.	NEG $\sqrt{X}$	eps	molu
c.	$\sqrt{X}$ HON	kyey-si	al-si

A Korean paradox

(25)

	regular pattern	$\sqrt{\text{EXIST}}$	$\sqrt{\text{KNOW}}$
a.	$\sqrt{X}$	iss	al
b.	NEG $\sqrt{X}$	eps	molu
c.	$\sqrt{X}$ HON	kyey-si	al-si
d.	NEG $\sqrt{X}$ HON	ani/mos kyey-si	molu-si

A Korean paradox

(25)

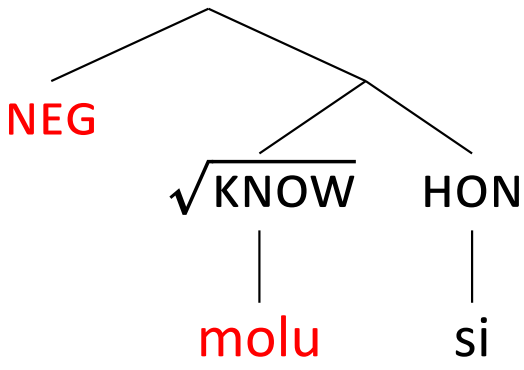
	regular pattern	$\sqrt{\text{EXIST}}$	$\sqrt{\text{KNOW}}$
a.	$\sqrt{X}$	iss	al
b.	NEG $\sqrt{X}$	eps	molu
c.	$\sqrt{X}$ HON	kyey-si	al-si
d.	NEG $\sqrt{X}$ HON	ani/mos kyey-si	molu-si

(26) a. NEG > HON > $\sqrt{\text{EXIST}}$

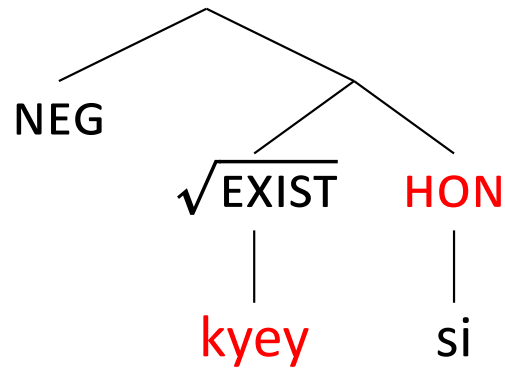
b. HON > NEG > $\sqrt{\text{KNOW}}$

A Korean paradox

(27)



(28)



Outline

Causative intervention

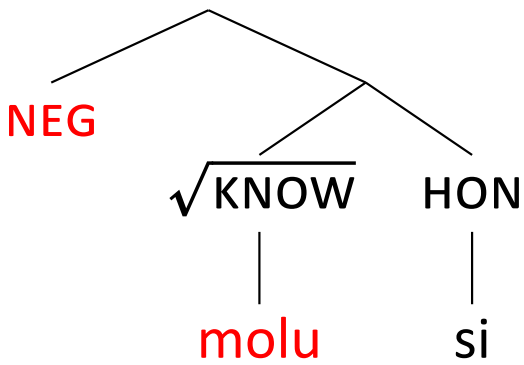
- We discuss two cases that are structurally analogous, but that show different behaviour
- When a causative head intervenes between the root and NEG or HON, suppletive realisation of the root is blocked
- This suggests that suppletion is strictly local

Causative intervention

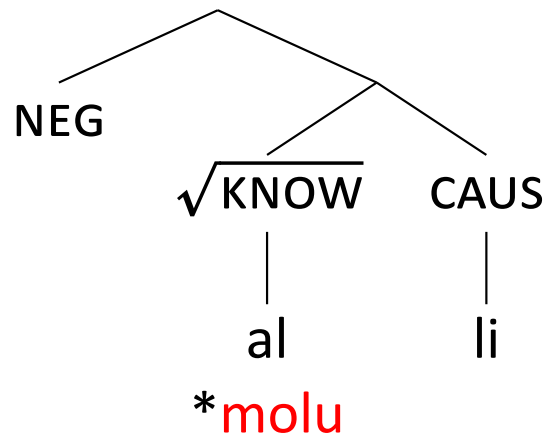
(29)	a.		$\sqrt{\text{KNOW}}$	al	‘know’
	b.	NEG	$\sqrt{\text{KNOW}}$	molu	‘not know’
	c.		$\sqrt{\text{KNOW}}$ CAUS	al-li	‘let know, inform’
	d.	NEG	$\sqrt{\text{KNOW}}$ CAUS	ani/mos al-li	‘not inform’

Causative intervention

(30)



(31)



Causative intervention

(32)

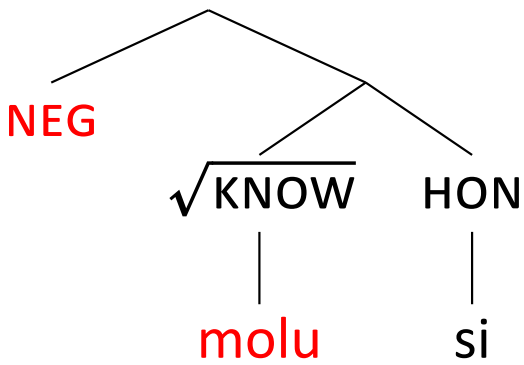
	ROOT-DECL	ROOT-HON-DECL	ROOT-HON-DECL	
a.	mek-ta	*mek-usi-ta	caps-usi-ta	‘eat’
b.	ca-ta	*ca-si-ta	cwum-usi-ta	‘sleep’
c.	iss-ta	iss-usi-ta	kyey-si-ta	‘be’

(33)

a.	$\sqrt{\text{EAT}}$	mek	‘eat’
b.	$\sqrt{\text{EAT}}$ CAUS	mek-i	‘let eat’
c.	$\sqrt{\text{EAT}}$ HON	caps-usi	‘eat’
d.	$\sqrt{\text{EAT}}$ CAUS HON	mek-i-si	‘let eat’

Causative intervention

(34)



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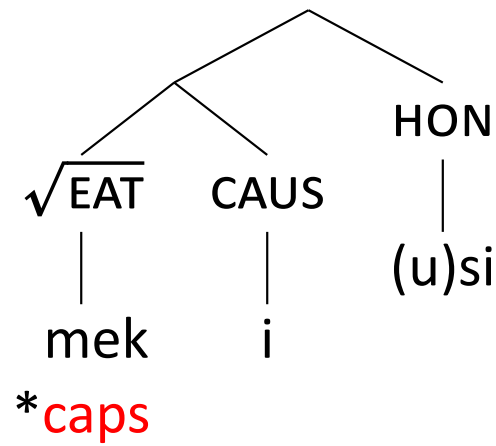
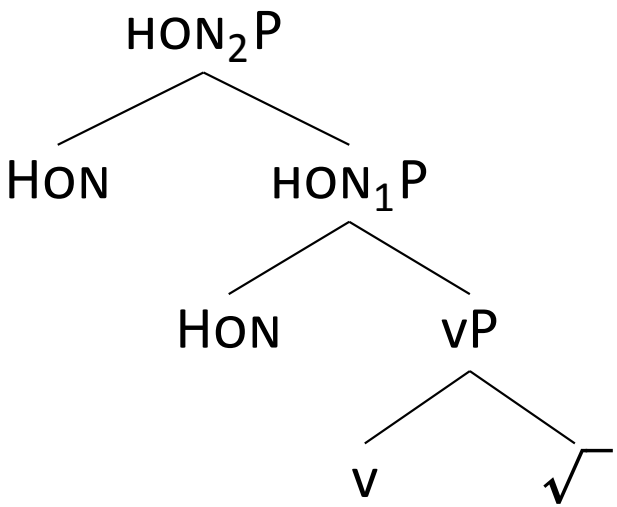


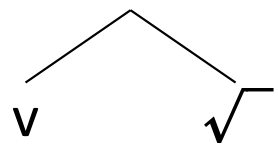
Outline

Decomposing HON

(36)



(37)



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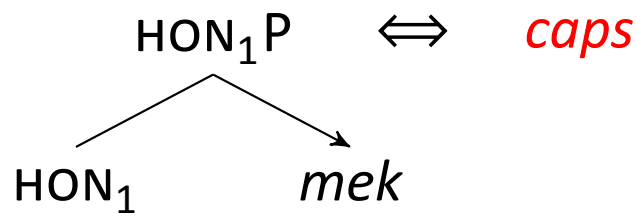
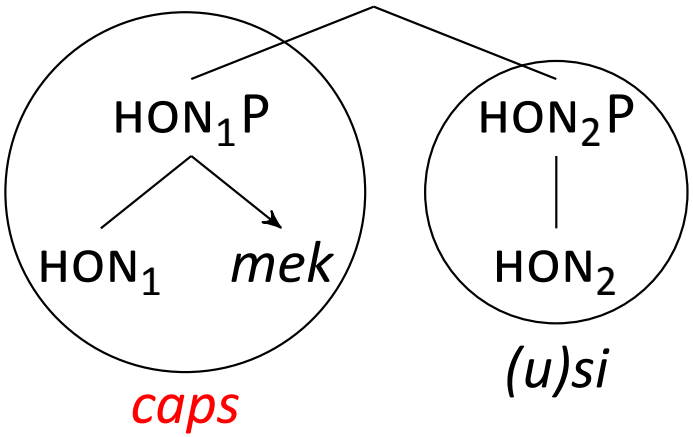


Decomposing HON

(39)



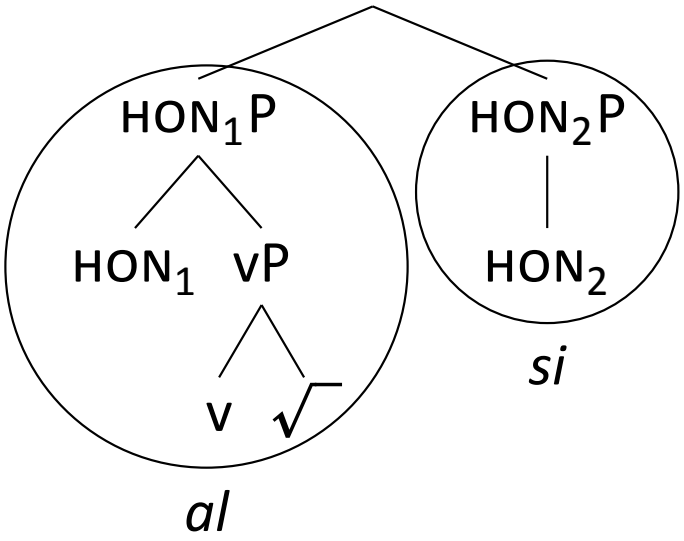
(40) $HON_2P \Leftrightarrow$ *(u)si*

HON_2P

HON_2

Decomposing HON

(41)



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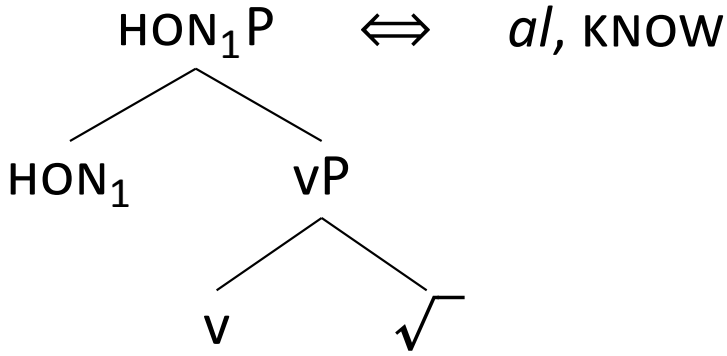
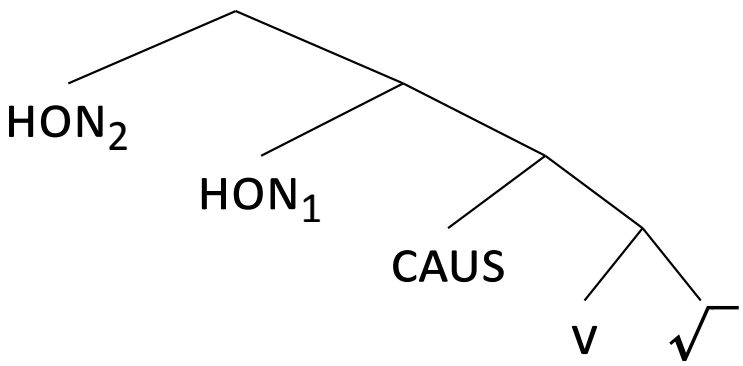


Outline

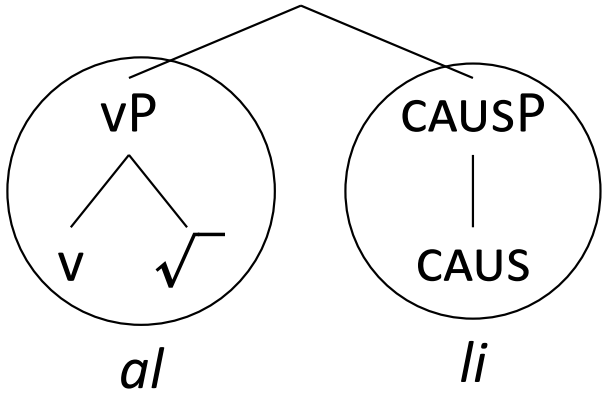
Adding causatives

(43)



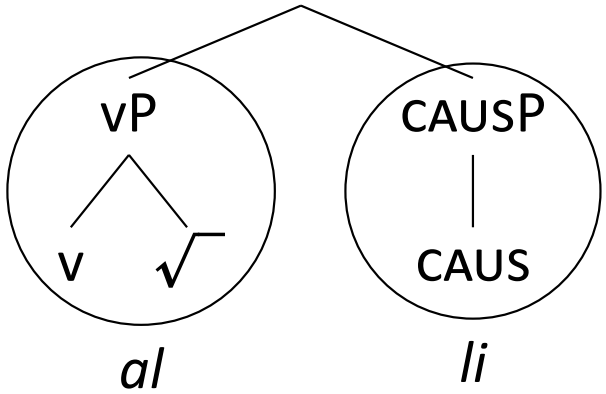
Adding causatives

(44)



Adding causatives

(44)



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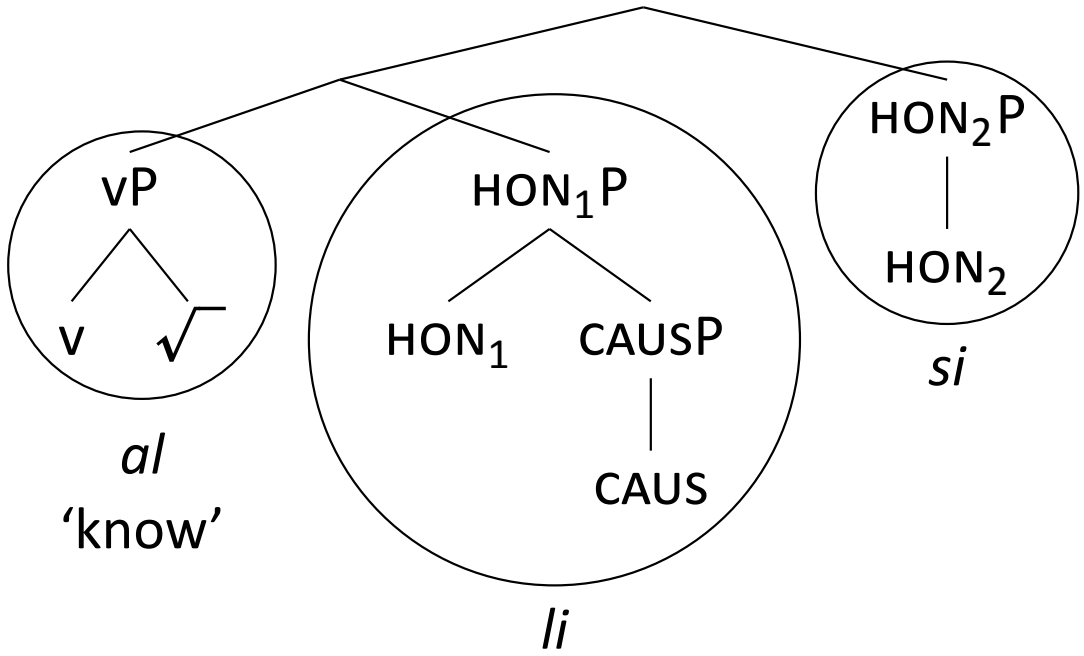
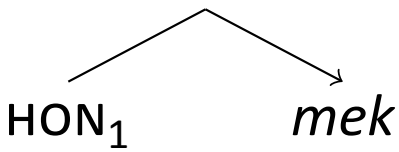


Adding causatives

(46)

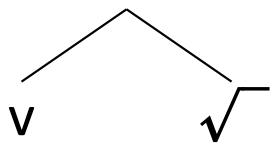
a.	$\sqrt{\text{EAT}}$	mek	‘eat’
b.	$\sqrt{\text{EAT}}$ CAUS	mek-i	‘let eat’
c.	$\sqrt{\text{EAT}}$ HON	caps-usi	‘eat’
d.	$\sqrt{\text{EAT}}$ CAUS HON	mek-i-si	‘let eat’

(47)



⟺ *caps*

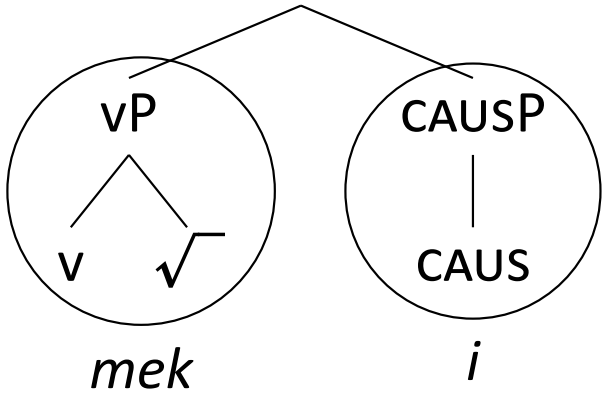
(48)



⟺ *mek*, EAT

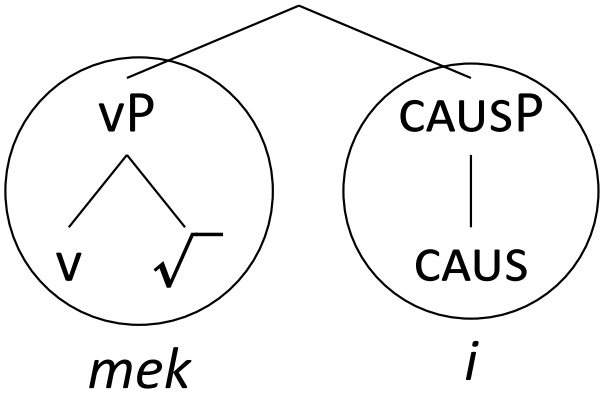
Adding causatives

(49)



Adding causatives

(49)



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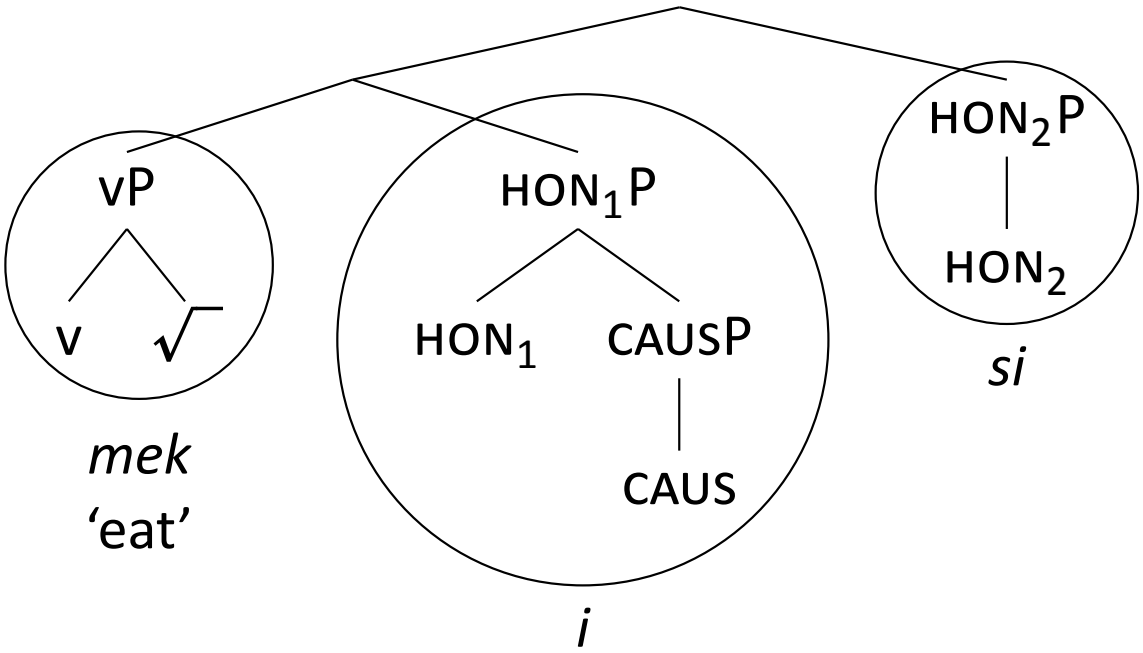
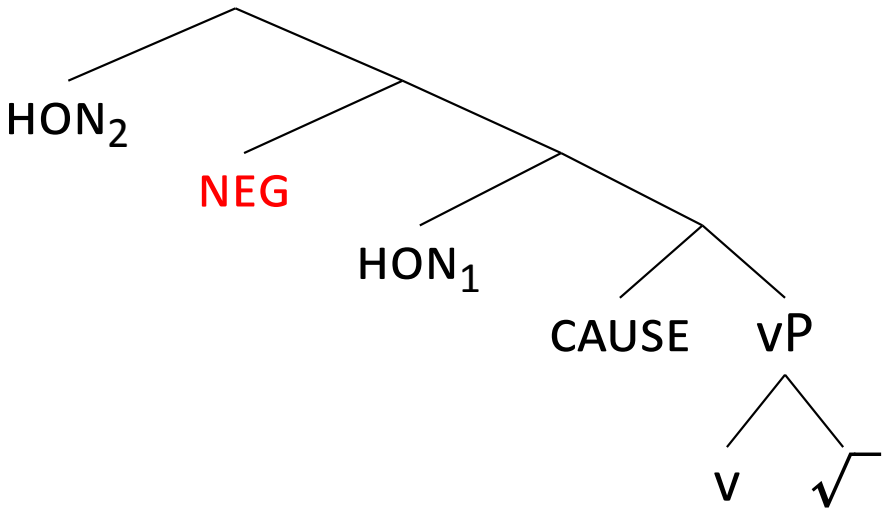


Outline

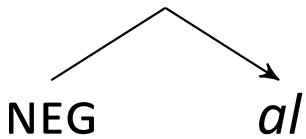
Adding negation

(51)

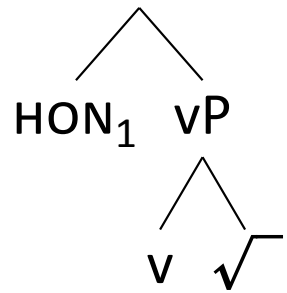


Adding negation

(52) NEGP ⟺ *molu*

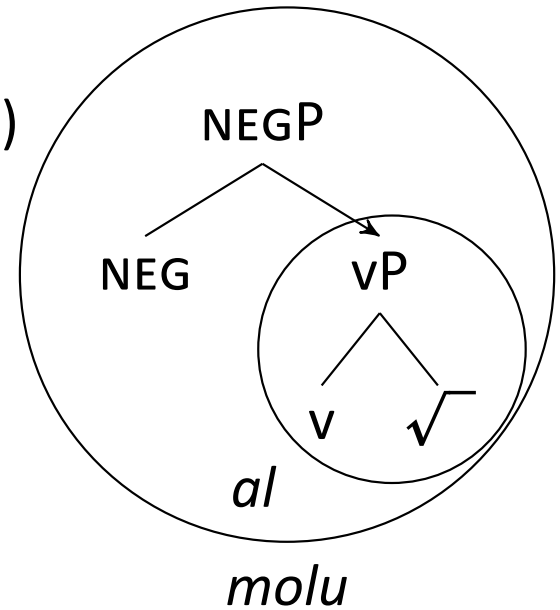


(53) HON_1P ⟺ *al*, KNOW

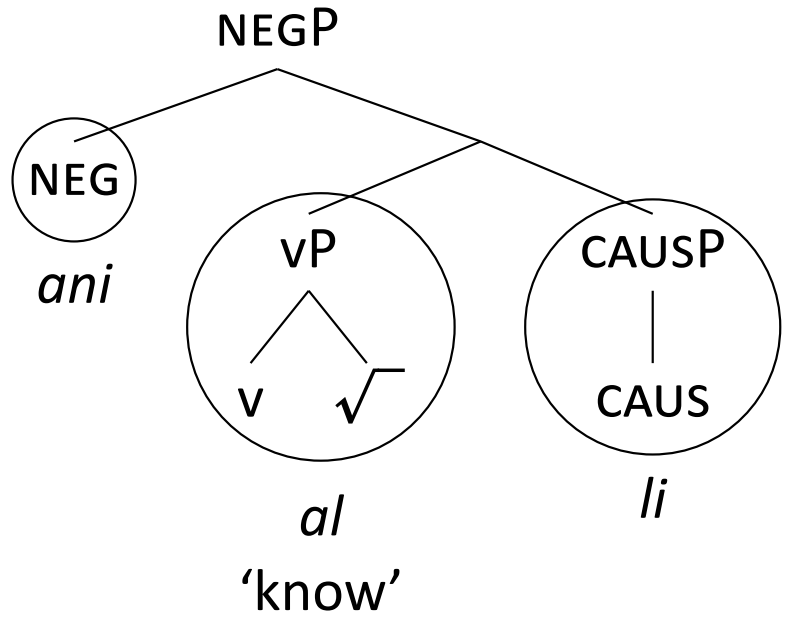


Adding negation

(54)



(55)



Adding negation

(56)	a.		$\sqrt{\text{KNOW}}$	al	‘know’
	b.	NEG	$\sqrt{\text{KNOW}}$	molu	‘not know’
	c.		$\sqrt{\text{KNOW}}$ CAUS	al-li	‘let know, inform’
	d.	NEG	$\sqrt{\text{KNOW}}$ CAUS	ani/mos al-li	‘not inform’

Outline

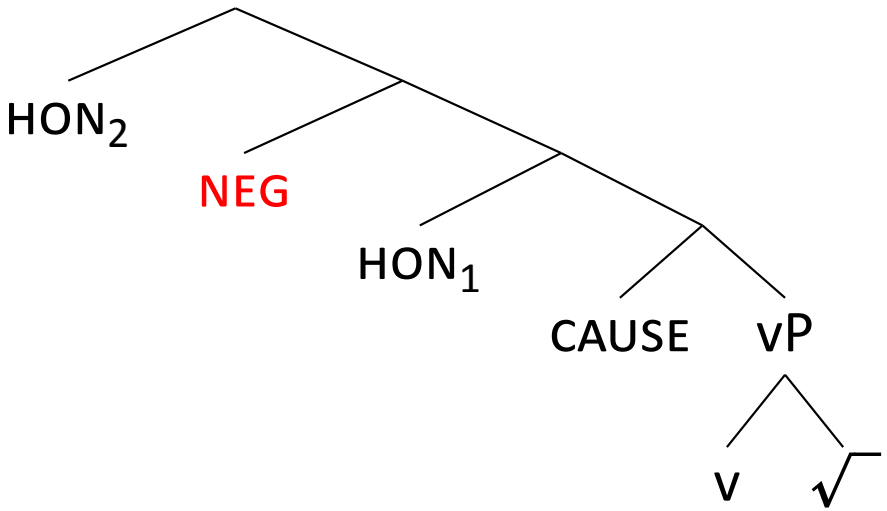
Explaining the paradox

(25)

	regular pattern	$\sqrt{\text{EXIST}}$	$\sqrt{\text{KNOW}}$
a.	$\sqrt{X}$	iss	al
b.	NEG $\sqrt{X}$	eps	molu
c.	$\sqrt{X}$ HON	kyey-si	al-si
d.	NEG $\sqrt{X}$ HON	ani/mos kyey-si	molu-si

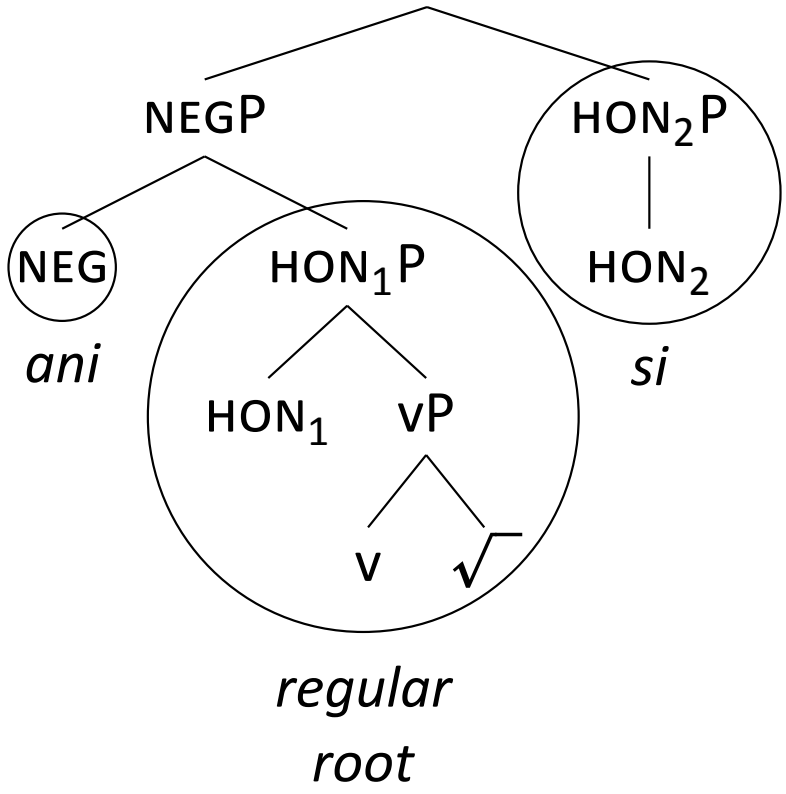
Explaining the paradox

(57)

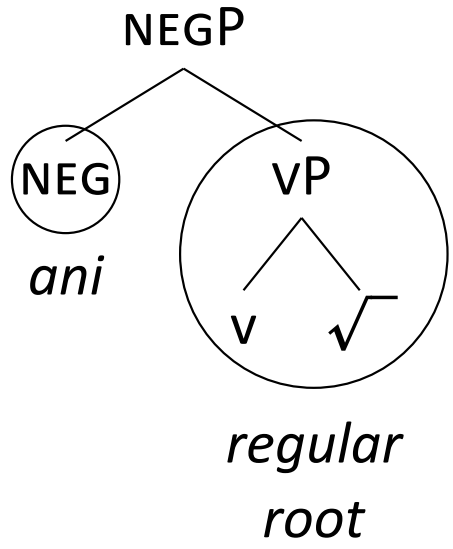


Explaining the paradox

(58)

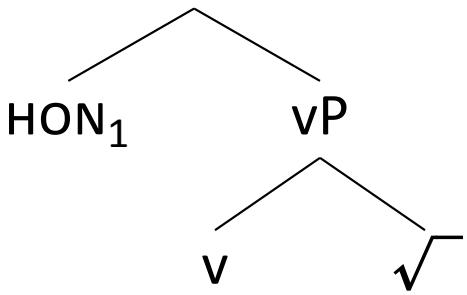


(59)

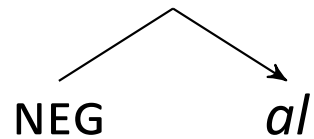


Explaining the paradox

(60) $\text{HON}_1\text{P} \Leftrightarrow$ *al*

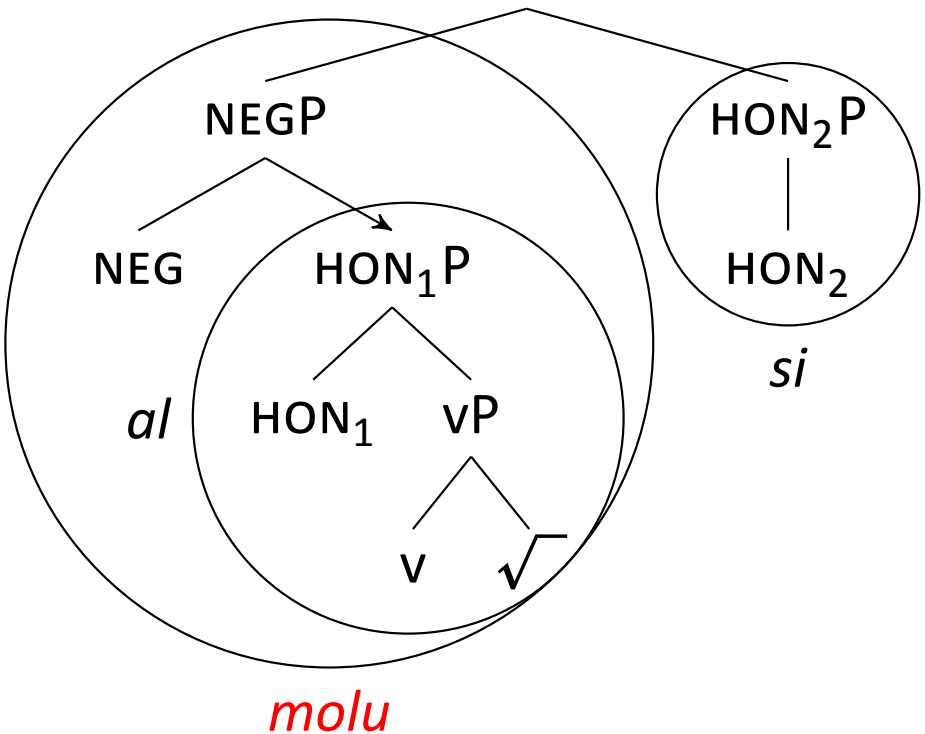


(61) $\text{NEGP} \Leftrightarrow$ *molu*

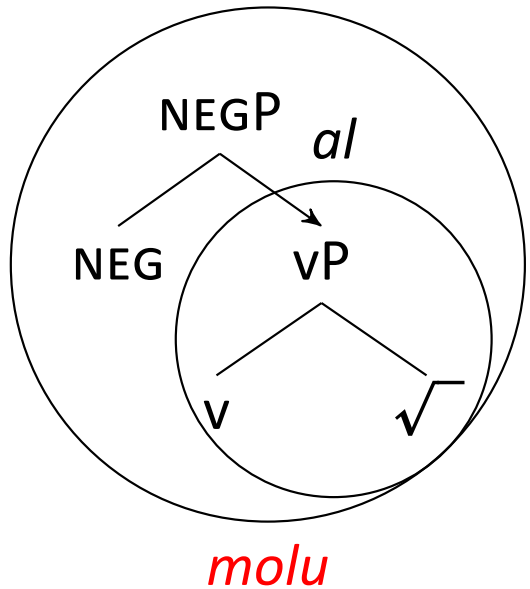


Explaining the paradox

(62)

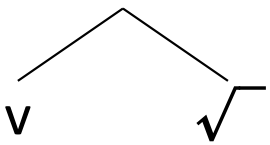


(63)

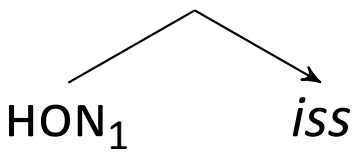


Explaining the paradox

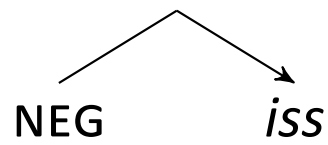
(64) vP ⟺ *iss*, EXIST



(65) HON_1P ⟺ *kyey*

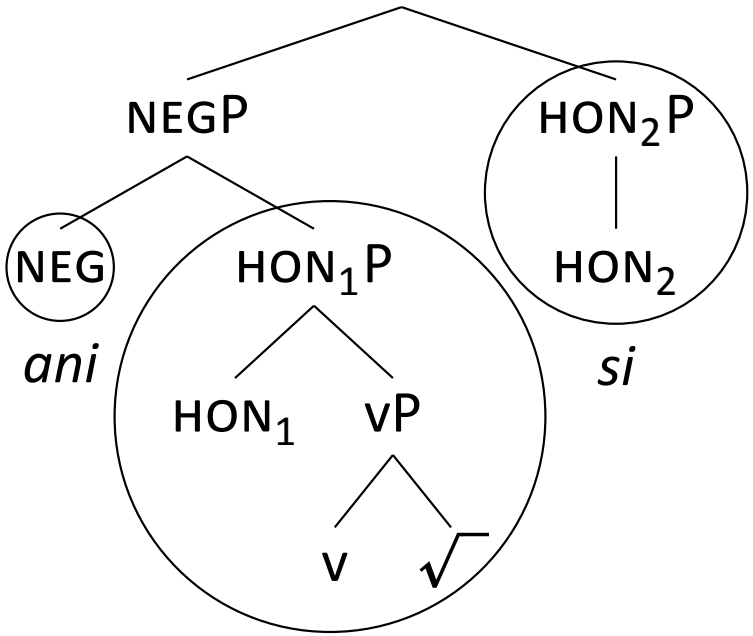


(66) NEGP ⟺ *eps*



Explaining the paradox

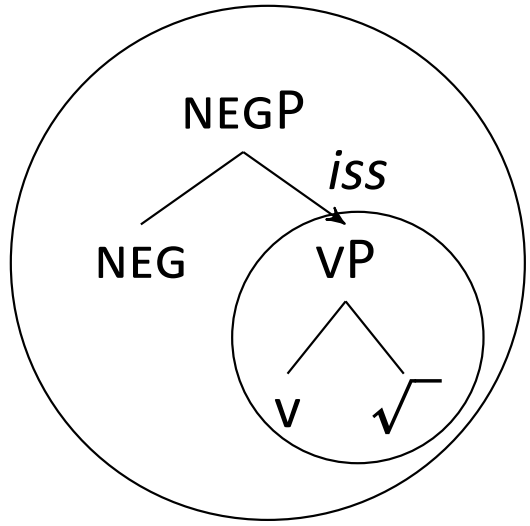
(67)



kyey

'be.HON'

(68)



eps

'not be'

Outline

A pickle?

(69) a. Halapeci-kkeyse ku chayk-ul ilk-(*usi)-e
grandfather-NOM.HON the book-ACC read-HON-E
po-si-ess-ta
try-HON-PST-DECL
'Grandfather tried to read the book.'

b. Halapeci-kkeyse pang-eyse cwum-usi-e
grandfather-NOM.HON room-in sleep-HON-E
po-si-ess-ta
try-HON-PST-DECL
'Grandfather tried to sleep in the room.'

(70) Halapeci-kkeyse cokum ca-a po-si-ess-ta
granddad-NOM.HON a.little sleep-E try-HON-PST-DECL
'Grandfather tried to sleep a little.'

Choi & Harley (2019):

- suppletive honorific verbs have been reanalysed and are no longer decomposable
- suppletion can be triggered by a higher HON-head
- -(u)si on the suppletive honorific verb is not a suffix

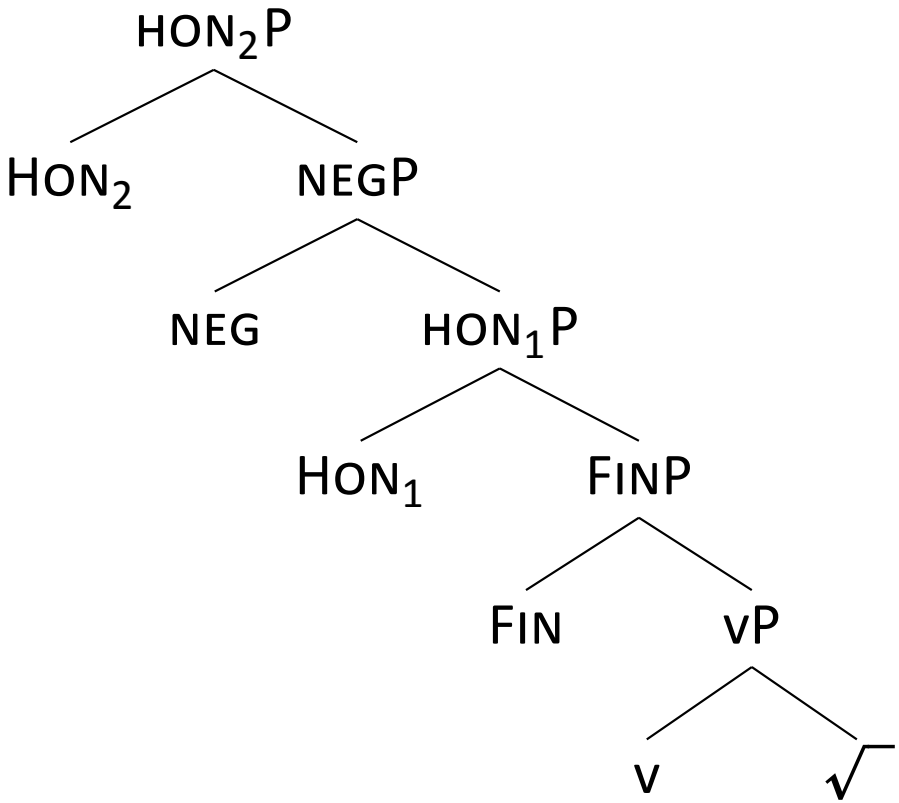
Two issues

- all the roots that show honorific suppletion end in *-(u)si*
  - Choi & Harley (2019) have to treat this as an accident
- Choi & Harley (2019) are forced to adopt an additional rule of exponence for *-(u)si*
  - HON $\longleftrightarrow$ $\emptyset$ / [{cwumwusi, kyeysi, capswusi} _]
  - HON $\longleftrightarrow$ -(u)si / elsewhere

Solution (Part 1): Restructuring

- non-finite clauses = restructuring environment (cf. Wurmbrand 2001)
- non-finite clause may be impoverished i.e. lack HON heads, even when the context is honorific

- non-finite clauses lack a FIN feature
- in finite clauses FIN sits below HON_1
- update of the fseq:

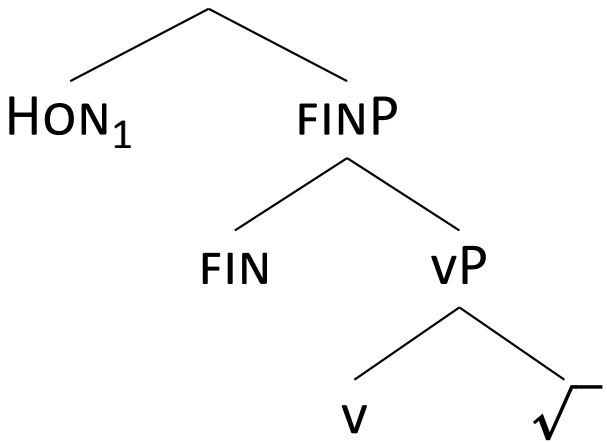


Solution (Part II): Update lexical items

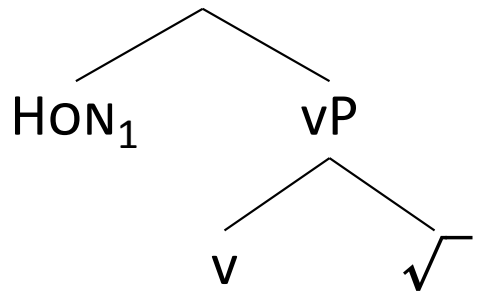
- verbs are specified for FIN
- suppletive lexical items have pointers

Regular roots: ilk ‘read’

(71) HON$_1$P ⟺ *ilk*

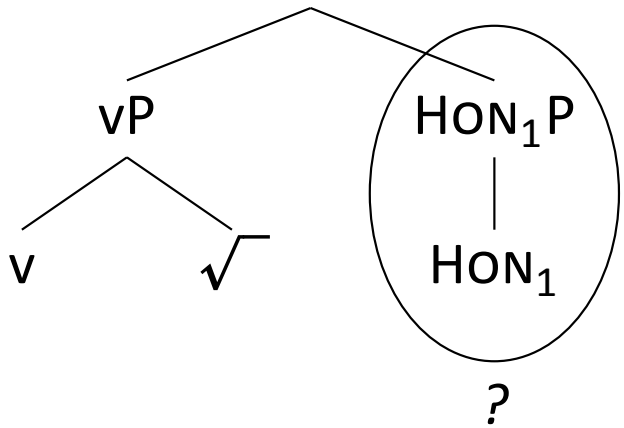


(72)



- *ilk*- ‘read’ (71) cannot lexicalise HON$_1$ in a non-finite environment (76).

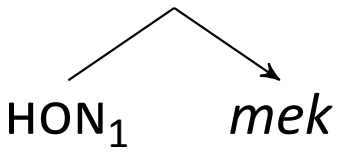
(73)



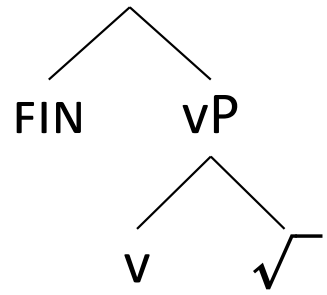
- no LI in Korean spells out just HON_1P
- HON_1 cannot be realised in non-finite environment
- derivation will backtrack, vP will be lexicalised
- HON_2 builds on HON_1 and will not be merged

Suppletive roots

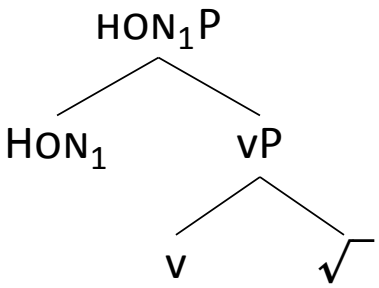
(74) $\text{HON}_1\text{P} \Leftrightarrow$ *caps*



(75) FINP $\Leftrightarrow$ *mek* 'eat'



(76)



- (74) has a pointer to the regular root (75)
- (75) can shrink at the top and lexicalise just vP, and hence a structure without FIN, (76)

Suppletive roots and free variation

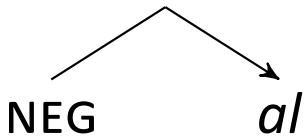
(77) Halapeci-kkeyse cokum ca-a po-si-ess-ta
granddad-NOM.HON a.little sleep-E try-HON-PST-DECL
'Grandfather tried to sleep a little.'

- only vP is lexicalised
- *po*-verbs can select for full or reduced infinitival complements
- impoverishment is optional and depends on the structure of the lexicon

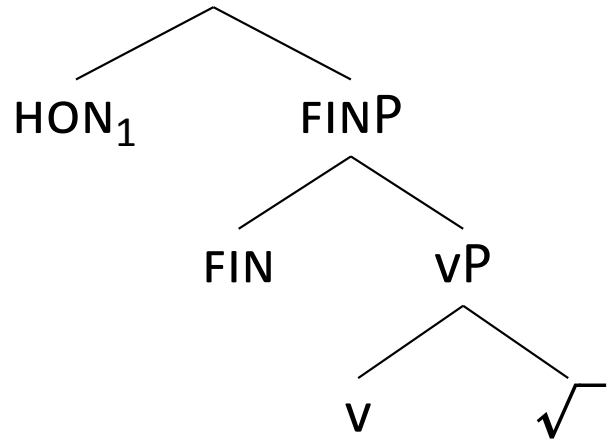
Negative suppletion in po-construction

(78) Halapeci-kkeyse ku cakphwum-uy kachi-lul
grandfather-HON.NOM DEM work-GEN value-ACC
moll-a po-si-ess-ta.
NEG.know-E see-HON-PST-DECL
'Grandfather failed to appreciate the value of the work.'

(79) NEGP ⟺ *molu*



(80) HON_1P ⟺ *al*

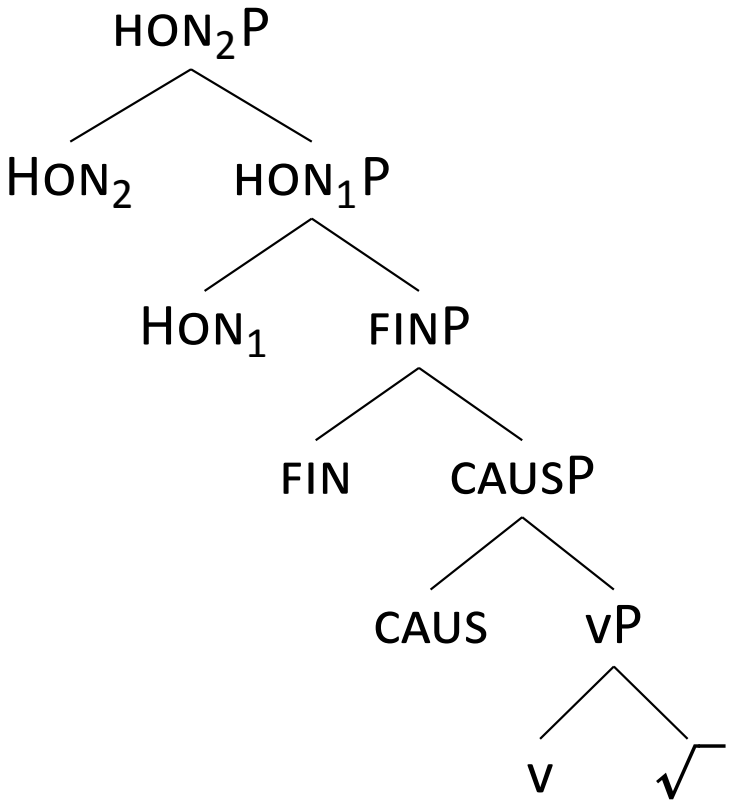


- Prediction: HON_1 cannot be present and hence HON_2 cannot be either.

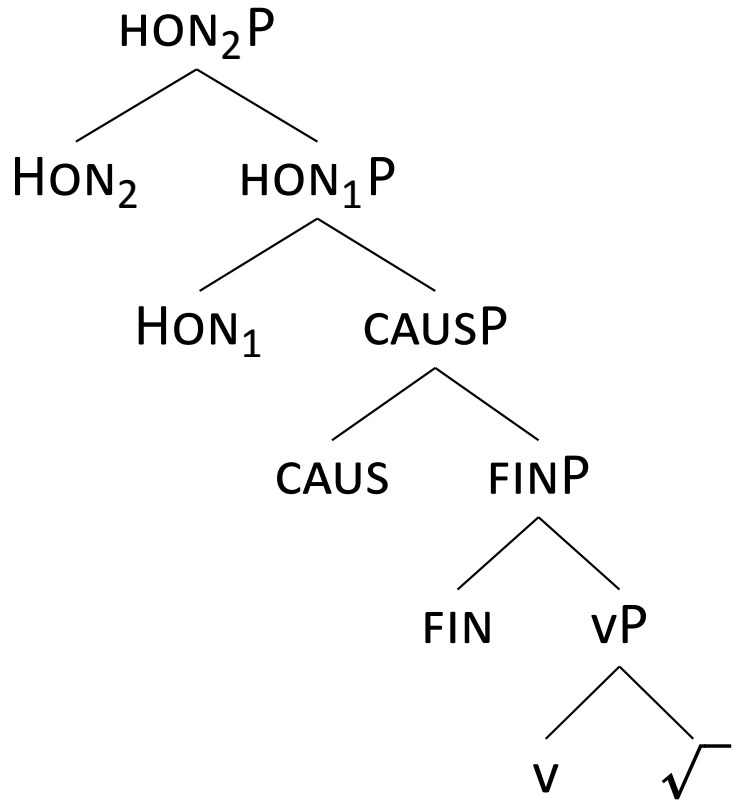
(81) Halapeci-kkeyse ku cakphwum-uy kachi-lul
grandfather-HON.NOM DEM work-GEN value-ACC
molu-(*si)-e po-si-ess-ta.
NEG.know-HON-E see-HON-PST-DECL
'Grandfather failed to appreciate the value of the work.
(Jaehoon Choi, p.c.)

What about causation?

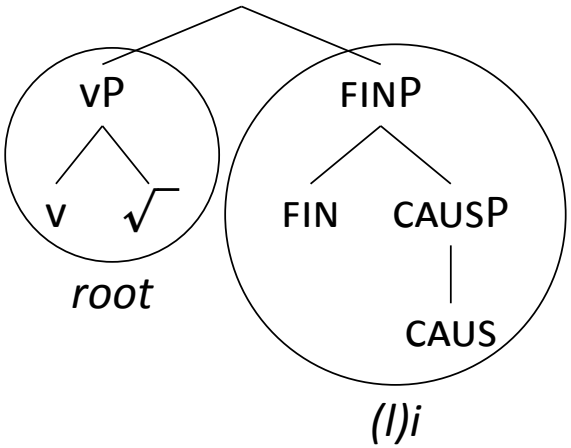
(82)

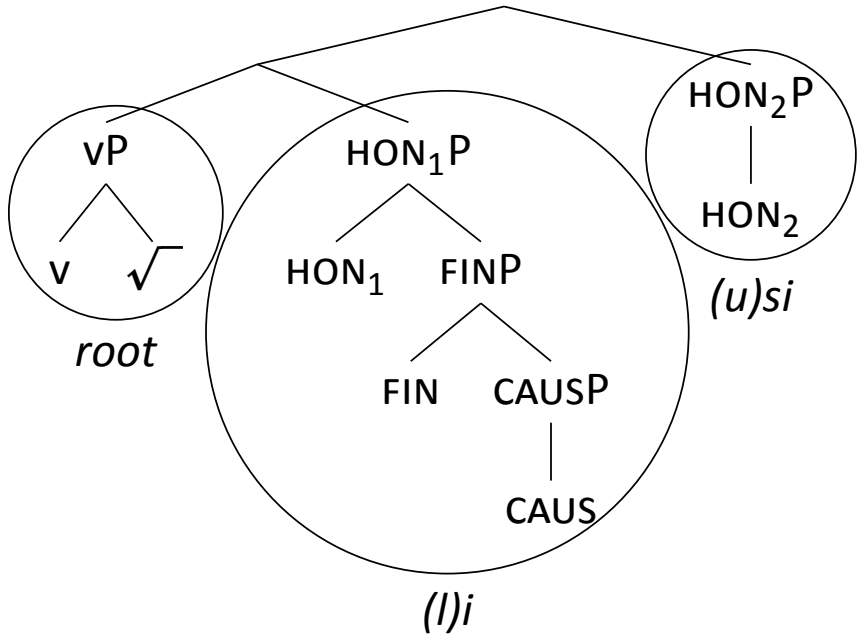


(83)



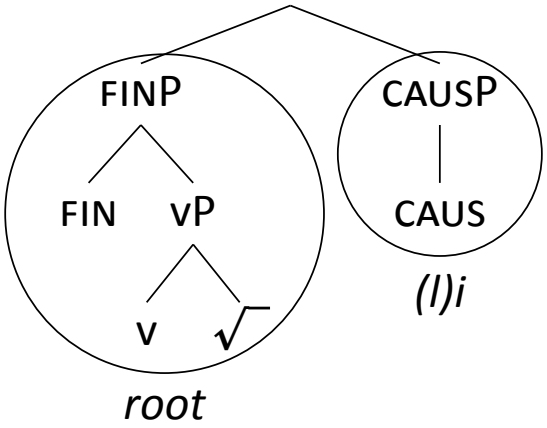
Option 1: FIN > CAUS

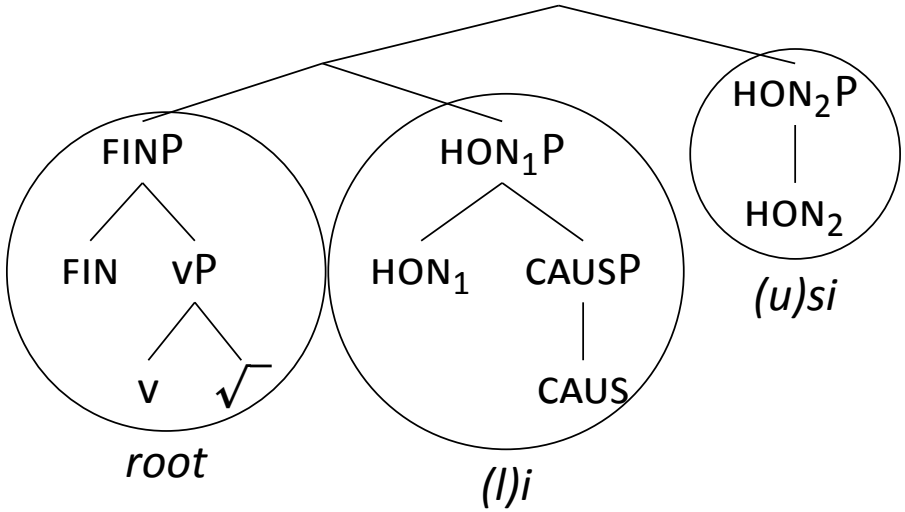




- Prediction: causatives under *po* should not allow honorific marking
- Why? presence of HON_1 presupposes presence of FIN

Option 2: CAUS > FIN





- Prediction: causatives under *po* should allow honorific marking
- Why? the root should be able to shrink to a nonfinite vP and HON_1 can be lexicalised by the causative suffix

FIN > CAUS

(84) Halapeci-kkeyse ai-tul-eykey chayk-ul
grandfather-NOM.HON children-PL-DAT book-ACC
ilk-hi-(*si)-e po-si-ess-ta.
read-CAUS-HON-E try-HON-PST-DECL
'Grandfather tried to make the children read the book.'

- the analysis we propose captures the facts without the need to treat the suppletive verbs as non-decomposable.
- we can explain why all honorific forms end in -(u)si
- we need no zero allomorph of the relevant HON head.
- a decompositional analysis of suppletive honorifics can be maintained despite the curious pattern that they exhibit in the complement of *po* 'try', and related verbs.

Outline

Conclusion

- Root suppletion can be accounted for while maintaining the SMT, if
  - bottom-up phrasal lexicalisation is adopted
  - $\sqrt{}$s are kept distinct from morphological roots
- indexed roots are dispensed with
- Multiple exponence and non-local allomorphy, often considered arguments against phrasal lexicalisation, can be dealt with nicely by a more fine-grained decomposition.

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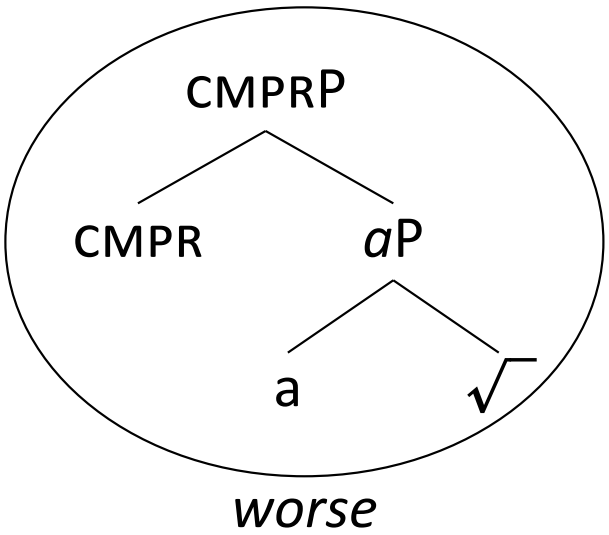
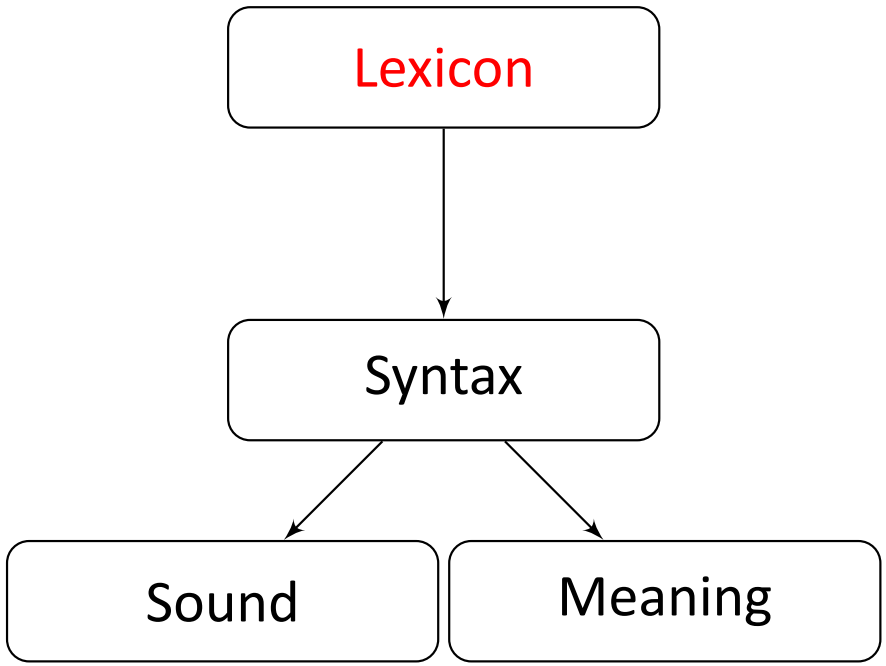
SMT in NS

- Do the NS derivations not violate the Strong Modularity Thesis?

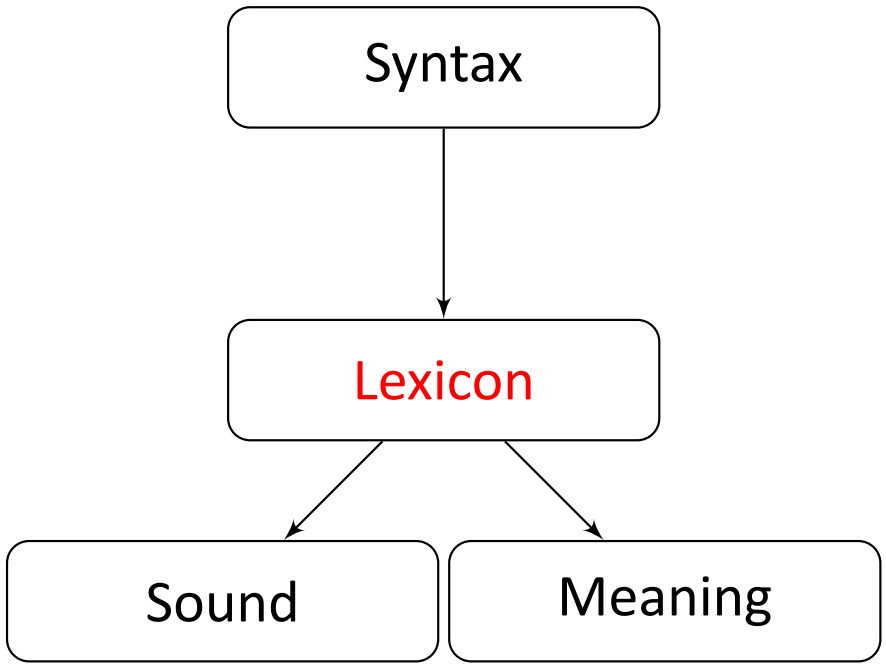
(85)



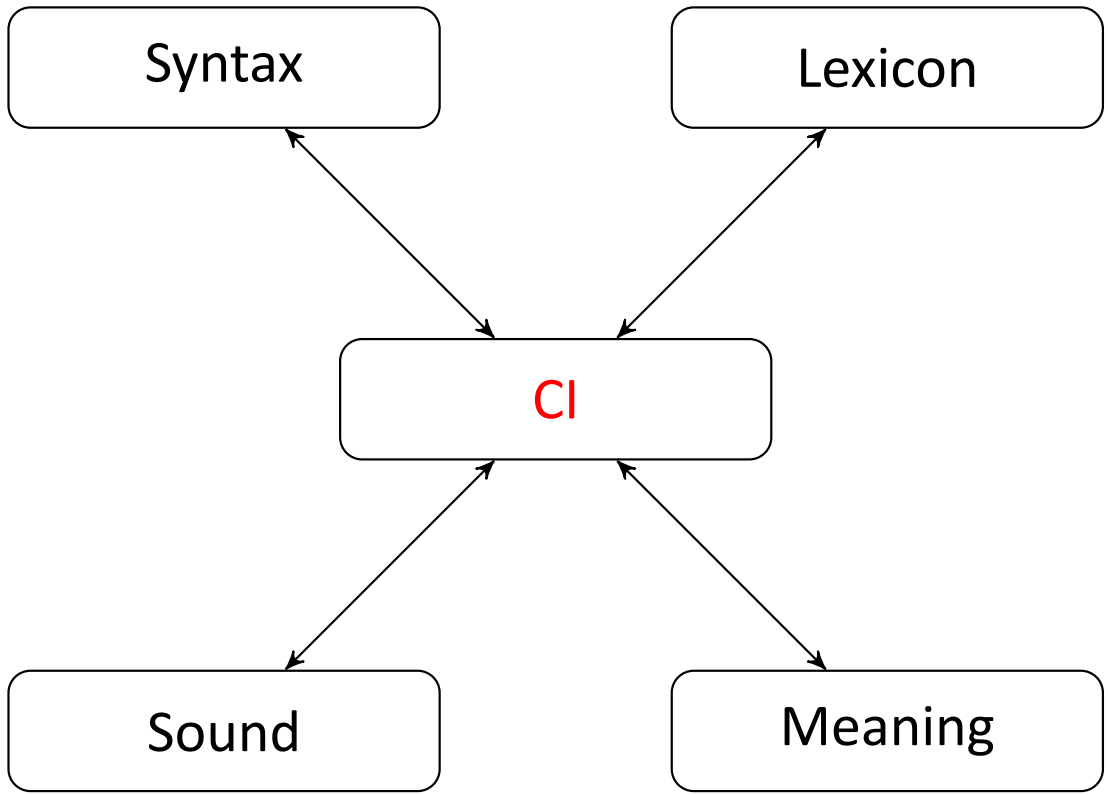
The Y-model



The Y-model



The X-model



SMT in NS

- Central Interface (CI)
  - reads both syntactic and lexical information
  - sends ‘pass’ or ‘fail’ to the syntax (no phonology or concepts)
  - keeps a record of successful lexicalisations

SMT in NS

- Central Interface (CI)
  - reads both syntactic and lexical information
  - sends ‘pass’ or ‘fail’ to the syntax (no phonology or concepts)
  - keeps a record of successful lexicalisations

$\Rightarrow$ Syntax is phonology- and concept-free (in accordance with SMT)