

# Three challenges for nanosyntax

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# Outline

Roots

Agree/feature-driven movement

Ordering multiple fseqs

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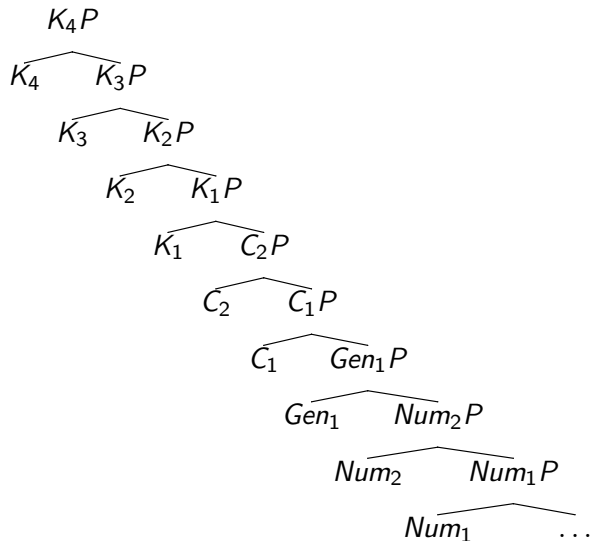
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(<http://nanosyntax.auf.net/whatis.html>)
- ▶ **example:** *bellis* ‘wars’: Latin noun, dative, second declension, neuter, plural

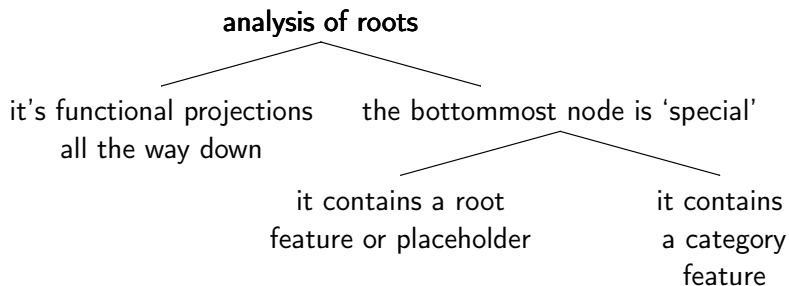
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(1)



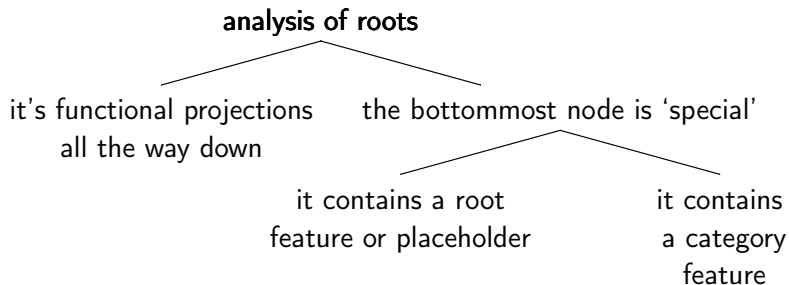
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(2)

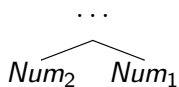


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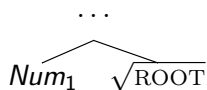
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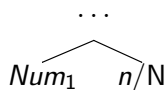
a.



b.



c.





# Roots

- ▶ the nanosyntactic position (I would think): functional projections all the way down

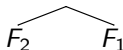
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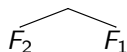
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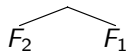
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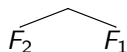
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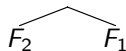
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- ▶ functional element:  $\langle /phon/, \dots, (\text{CONCEPT}) \rangle$



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- ▶ the malleability of roots productively and massively extends across category boundaries



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**functional vocabulary items** have a fixed meaning, and are not malleable or coercable:

- (3)
- a. \*A lot of wine is/are many.
  - b. \*There are too much carpet in this room.
  - c. \*too much carpets

# Roots

**lexical vocabulary items/roots** have a flexible meaning, are malleable and coercable:

- (4)
- a. This is too little carpet for the money.
  - b. There are three wines in the cellar.
  - c. Cat came.
  - d. The three Kims I met yesterday were all tall.

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the malleability of roots extends beyond traditional category boundaries

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- (5)
- a. Are those **slicks** under your Dodge A-100?
  - b. While not every man likes to **slick** his hair up every morning, it is wise to have a gel, wax or mousse around just in case.
  - c. Oh, you're such a **slick** girl.

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c. Oh, you're such a **slick** girl.
- (6) Goedkopen kan je ook bij Carrefour.  
cheap.INF can you also at Carrefour  
'Shopping cheaply is also possible at Carrefour.'
- (7) Ik geef niks, boosde Nelis terug. (1900s Dutch)  
I give nothing angry.PST Nelis back  
'I give nothing, Nelis replied angrily.'

# Roots

Borer (2005): there is a fundamental difference between roots and functional items; the latter contain grammatical/categorial features, the former do not. The lexicon thus has two subsets:

- (8)
- a. **group 1:** *stone*<sub>[],</sub> *light*<sub>[],</sub> *cat*<sub>[],</sub> ... → LVIs: no grammatical or categorial features
  - b. **group 2:** *those*<sub>[D,def,dist,pl],</sub> *-ed*<sub>[T,past],</sub> *-s*<sub>[num,pl],</sub> ... → FVIs: grammatical and categorial features

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- ▶ the nanosyntactic position: coercion/malleability is just another term for phrasal spell-out combined with the Superset Principle
- ▶ but why then do roots and functional vocabulary items behave so differently when it comes to coercion? Shouldn't their L-trees allow equal amounts of shrinkage?
- ▶ coercion across category boundaries suggests that lexical categories such as A, N and V should also be in a subset/superset-relation, but can we build a unique, non-ambiguous functional sequence containing these elements (or whatever their constitutive parts are)? (assuming the fseq doesn't contain gaps)

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- (11) \*douche<sub>A</sub> - douche<sub>V</sub> - douche<sub>N</sub> → VP and NP are adjacent syntactic layers (with AP either higher or lower)
- (12) to **up** the ante → apparently PP should be taken up in the mix as well

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- ▶ there is no unique unambiguous fseq linking up the various lexical categories in a subset/superset-relation and data involving coercion across category boundaries make it unlikely that one is forthcoming

# Outline

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Agree/feature-driven movement

Ordering multiple fseqs

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- ▶ “This technology in fact predicts an interesting class of movements: movements that swap the order of two constituents, not matter how big, and which have no detectable semantic or classically syntactic triggers.” (Starke 2011:12)



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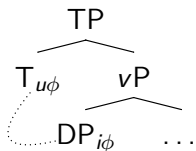
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- ▶ there is no notion of (un)valued/(un)interpretable



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- ▶ there is no feature-driven movement in the traditional sense (i.e. movements triggered by the need to satisfy morphosyntactic features); all the “other” movements are directly driven by the need to satisfy LF-requirements

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- ▶ the traditional view on Agree and feature-driven movement cannot be maintained in nanosyntax
- ▶ non-local movements with scopal effects, reconstruction etc. might be driven by the need to satisfy LF-requirements, but constructing such a theory is a tall order

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Ordering multiple fseqs

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The Latin Case sequence (Caha 2009:123):

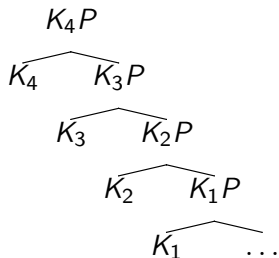
## Syncretism in Latin

	war, SG.	star , SG.	thing, SG.	war, PL.
NOM	bell-um	stell-a	r-ēs	bell-a
ACC	bell-um	stell-am	r-em	bell-a
GEN	bell-ī	stell-ae	r-eī	bell-ōrum
DAT	bell-ō	stell-ae	r-eī	bell-īs
INS	bell-ō	stell-ā	r-ē	bell-īs



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(15)



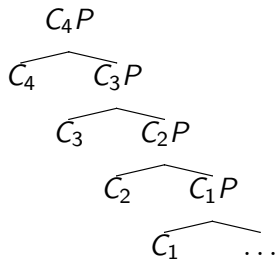
# Ordering multiple fseqs

The Latin Declension class sequence:

	abl.pl.fem	nom.sg.m	abl.pl.m	acc.sg.m
I	īs	a	īs	am
II	īs	us	īs	um
IV	ibus	us	ibus	um
III	ibus	∅/o/s/is	ibus	em
V	ēbus	ēs	ēbus	em

## Ordering multiple fseqs

(16)



## Ordering multiple fseqs

how are  $C_nP$  and  $K_nP$  ordered with respect to one another?

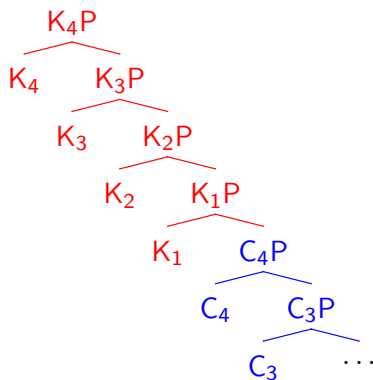
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how are  $C_nP$  and  $K_nP$  ordered with respect to one another?

**three options:**

- ▶  $K > C$

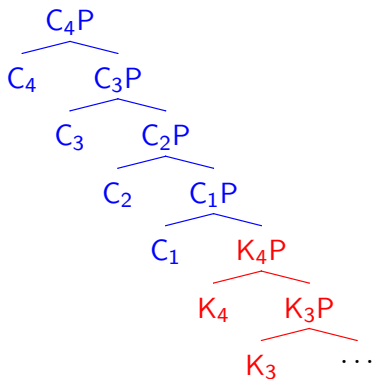
(17)



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►  $C > K$

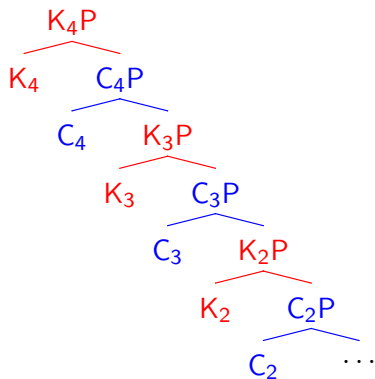
(18)



# Ordering multiple fseqs

- ▶ K and C are interspersed

(19)



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  - ▶ because it might bring back old demons

# Old demons

challenges for cartography (I):

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(20) Ståle har <\*ikke> muligens <ikke> spist  
S. has not possibly <not> eaten

hvetekakene sine.

the.wheaties his

'Stanley possibly hasn't eaten his wheaties.'

(21) Ståle har <\*alltid> ikke <alltid> spist  
S. has always not <always> eaten

hvetekakene sine.

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'Stanley hadn't always eaten his wheaties.'



## Old demons

- (22) Dette er et morsomt gratis spill hvor spillerne  
this is a fun free game where the players  
**alltid mulligens** er et klikk fra åa vine \$1000!  
always possibly are one click from to win \$1000  
'This is a fun, free game where you're always possibly a  
click away from winning \$1000!'

# Old demons

- ▶ translating transitivity failures into nanosyntax:

$X < Y$

$Y < Z$

$Z < X$

# Old demons

- ▶ translating transitivity failures into nanosyntax:

$X < Y$

AAB

$Y < Z$

ABB

$Z < X$

ABA

# Old demons

- ▶ translating transitivity failures into nanosyntax:

X < Y    AAB

Y < Z    ABB

Z < X    ABA

- ▶ to the extent that \*ABA is robust, it might retroactively provide support for the position that transitivity failures are only apparent and can be solved via movement or multiplication of projections

# Old demons

challenges for cartography (II):

- ▶ Bobaljik-paradoxes (Bobaljik 1999)

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neg they.have eaten not any.longer  
'They haven't eaten any longer.'
  - b. Non hanno mica più mangiato.
  - c. Non hanno mica mangiato più.
  - d. \*Non hanno più mangiato mica.
  - e. \*Non hanno più mica mangiato.
  - f. \*Non hanno mangiato più mica.

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- ▶ the position of the two adverbs remains constant regardless of their position vis-à-vis the participle

## Old demons

- (24)
- a. Non hanno mangiato mica più.
  - b. Non hanno mica mangiato più.
  - c. Gianni stupidamente mica gli ha più  
Gianni stupidly not to.him has no.longer  
telefonato.  
phoned.  
'Gianni stupidly hasn't called him any more.'
  - d. \*Gianni stupidamente telefonato mica gli ha più.
  - e. \*Gianni stupidamente telefonato gli ha mica più.
  - f. \*Gianni stupidamente mica telefonato gli ha più.



## Old demons

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- ▶ the position of the auxiliary and the participle remains constant regardless of their position vis-à-vis the adverb *mica*

# Old demons

- ▶ Bobaljik (1999): “Examining the general picture, the effect given by the data is one of multiple hierarchies (at least, perhaps at most, two) interleaved among one another. (..) It is exactly this interleaving effect that I would suggest here is evidence of a separate, but intrinsically ordered, tier on which adverbs occur, ultimately collapsed together with the argument/head tier by a form of tier conflation”

# Ordering multiple fseqs

Summing up:

- ▶ while the nanosyntactic tools seem well-suited to explore the inner workings of a single fseq, combinations of multiple fseqs raise questions

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## Summing up:

- ▶ while the nanosyntactic tools seem well-suited to explore the inner workings of a single fseq, combinations of multiple fseqs raise questions
- ▶ ordering is one of them, others include merger (how do nominal fseqs merge in the verbal/clausal spine? is this merge operation triggered/feature-driven? does it interfere with the phrasal spell-out of the functional spine?) or 'alignment' (how does concord work, i.e. how do we ensure that all the material within, say, a single DP (determiner, adjective, noun, etc.) grows to exactly the same fseq-height?)

End

Thanks!