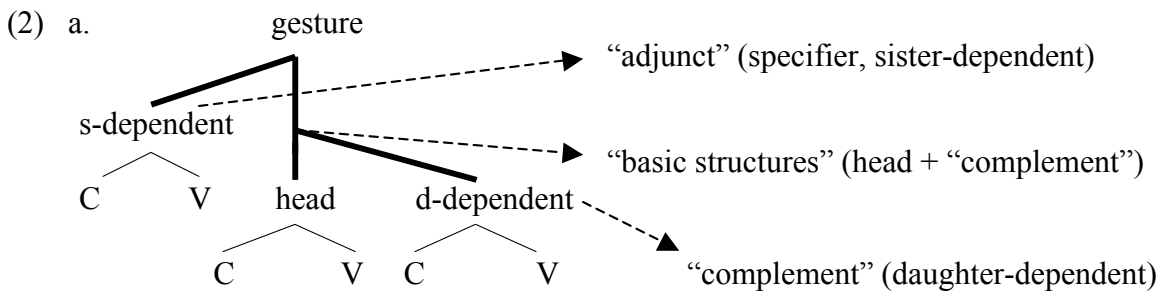
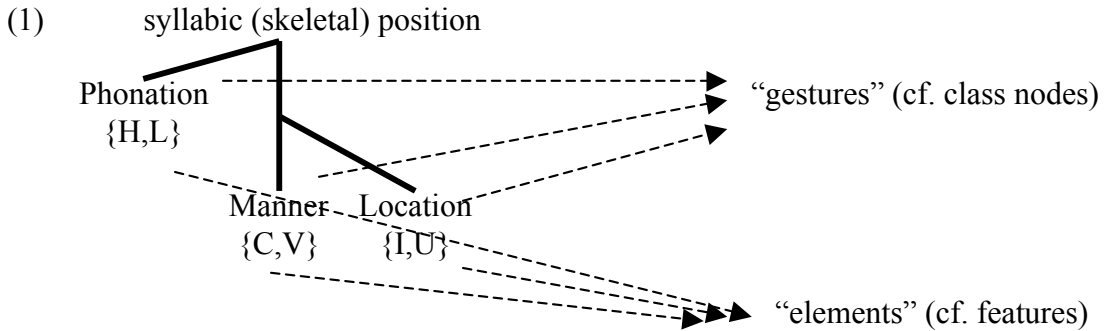


The Phonological Mobile

Harry van der Hulst
University of Connecticut

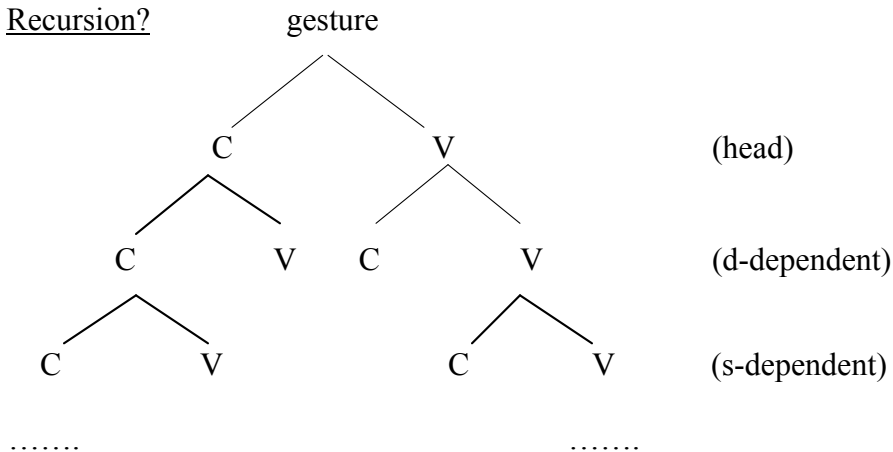
The CUNY Phonology Forum / Conference on Precedence Relations in Phonology
January 26/25, 2007



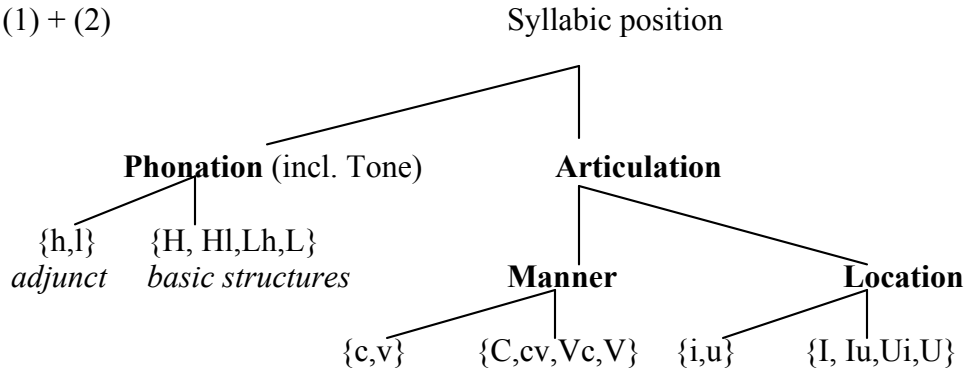
b. 8 possible gesture structures

°C °C C Cv Vc V °V °V

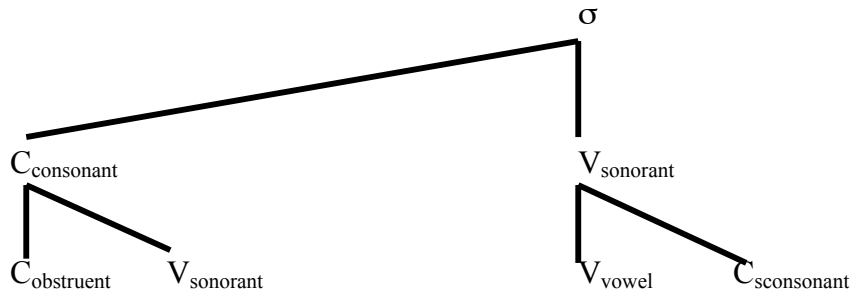
c. Recursion?



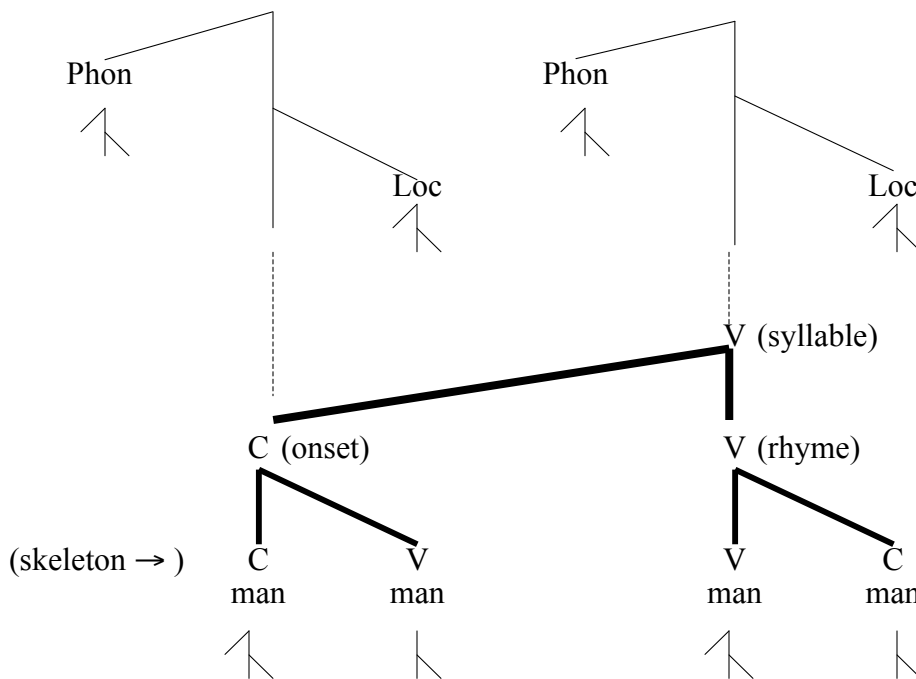
(3) = (1) + (2)



(4) The syllable (“built-in major class distinctions”)



(5) = (4) + (3) (Phonation and Location only apply to syllabic heads)



(6) The phonetic interpretation of elements is determined by:

- a. *Syllabic position* (four options)
 - onset head
 - onset dependent
 - rhyme head
 - rhyme dependent
- b. *Subgestural role* (three options)
 - primary subgesture (head)
 - secondary subgesture (d-dependent)
 - adjunct (s-dependent)

(7) The phonetic interpretation of the elements

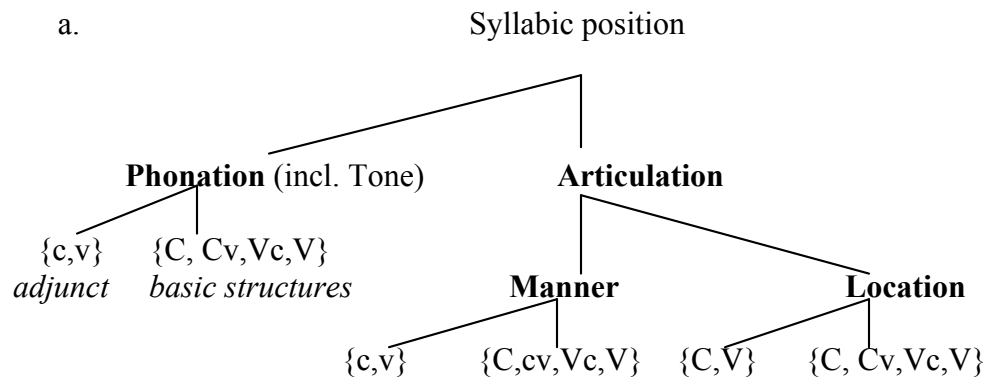
Manner	V	Vc	Cv	C
C (onset head)	strident fricative	plain fricative	affricate (strident stop)	plain stop
Cv (onset dependent)	/j/	/w/	/r/	/l/
V (rhyme head)	low vowel	low mid vowel	high mid vowel	high
Vc (rhyme dependent)	/j/	/w/	/r/	/l/
<i>Adjunct</i>	onset: gutturalized	rhyme: ATR		onset: lateralized rhyme: lax

Phonation	L	Lh	Hl	H
C (onset head)	voiced	creaky	breathy	voiceless
V (rhyme head)	low tone	low mid tone	high mid tone	high tone
<i>Adjunct</i>	nasalized			glottalized

Location	U	Ui	Iu	I
C (onset head)	peripheral & labial, e.g. [p]	peripheral & coronal, e.g. [k]	coronal & peripheral, e.g. [c]	coronal, e.g. [t]
V (rhyme head)	peripheral & round, e.g. [u]	peripheral & front, e.g. [ɨ]	front & peripheral e.g. [y]	front, e.g. [i]
<i>Adjunct</i>	labialized			palatalized

(8) RAA (“There are only two elements”)

a.



b. Cross-gestural equivalences

	Manner	Location (?)	Phonation
C	C	I	L
V	V	U	H

(9) The phonetic interpretation of elements is determined by ('revised'):

a. *Syllabic position* (four options)

- onset head
- onset dependent
- rhyme head
- rhyme dependent

b. *Subgestural role* (three options)


- primary division (head)
- secondary division (d-dependent)
- adjunct division (s-dependent)


c. *Gesture* (three options):


- manner
- location
- phonation


(10) Interpretations of C


(“Traditional binary features are shorthands for phonetic meaning”)


- | | | |
|---|---|---------------|
| <ul style="list-style-type: none"> a. Syllabic position: onset head b. Role: head c. Gesture: head (manner) |  | [-continuant] |
|---|---|---------------|

- | | | |
|---|---|---------|
| <ul style="list-style-type: none"> a. Syllabic position: rhyme head b. Role: head c. Gesture: head (manner) |  | [+high] |
|---|---|---------|

- | | | |
|--|---|----------|
| <ul style="list-style-type: none"> a. Syllabic position: onset head b. Role: head c. Gesture: head (phonation) |  | [-voice] |
|--|---|----------|

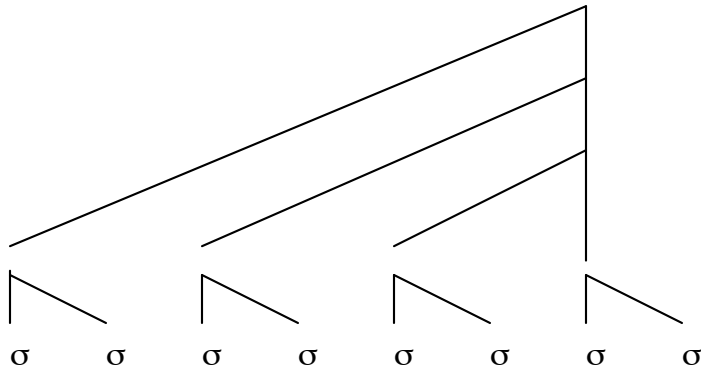
- | | | |
|--|--|----------------|
| <ul style="list-style-type: none"> a. Syllabic position: rhyme head b. Role: head c. Gesture: head (phonation) |  | [+high (tone)] |
|--|--|----------------|

- | | | |
|---|---|------------|
| <ul style="list-style-type: none"> a. Syllabic position: onset head b. Role: head c. Gesture: head (location) |  | [+coronal] |
|---|---|------------|

- | | | |
|---|---|---------|
| <ul style="list-style-type: none"> a. Syllabic position: rhyme head b. Role: head c. Gesture: head (location) |  | [-back] |
|---|---|---------|

(11) Linearization (syllable level)

Syllable: head last
 Onset/Rhyme: head first

(12) Word structure (bounded feet, unbounded “recursive” words)(14) = (11) + (13) Linearization (“The value flips from level to level”)

Syllable: head last	→
Onset/Rhyme: head first	←
Word: head last	→
Foot: head first	←

(15) An intermediate proposal: onset – rhyme segregation
 (“Precedence specified for each separately”)(16) Evidence for “underlying” hierarchy, mobiles and linearizationLinguistic evidence

Phonological processes (synchronic and diachronic)

Metathesis

Long distance interaction

Morphological processes

Reduplication

Language games

Secret languages

Blends, portmanteaux

Rhyming and alliteration

Psycho-linguistic evidence

Tip-of-the-Tongue
Malapropisms
Speech errors
 Slips of the tongue/spoonerisms
 Hesitations
 Sperrors (fast speech mistakes)
Child acquisition 'errors'
Pathology
 Aphasia
 SLI, e.g. dyspraxia (KE-family)
 Stuttering

Reading

Problems (dyslexia)
Capacity to read scrambled spellings

Models of speech production/perception

Phonological encoding/decoding

References

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- Anderson, John (2003). Contrast in phonology, structural analogy and the interfaces. Ms.
- Golston Chris and Harry van der Hulst (1999). Stricture is structure. In: B. Hermans & M. Oostendorp (eds.). *The derivational residue in phonological Optimality Theory*. Dordrecht: Reidel, 153-174
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