
The Reconciliation of Body and Rhyme: Bare Syllable Structure

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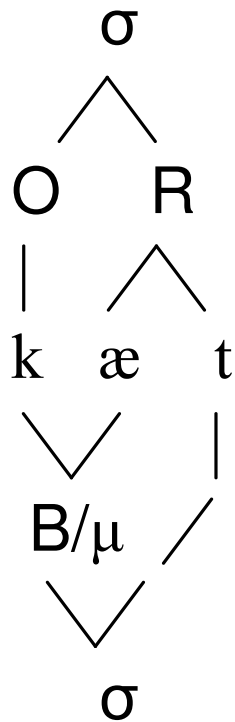
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- Vergnaud 2007 (building on Browman and Goldstein 2000) proposes an autosegmental analysis of a CV syllable:

C
|
V

- He further proposes that a CVC syllable be analyzed as: {C, V}-{C}
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Subsyllabic constituency

- onset/rime (e.g. Fudge 1969, Selkirk 1982)



- body/coda (Venneman 1984)
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A standard argument for onset versus rhyme division:

- There are no phonotactic co-occurrence restrictions on onset versus peak (nucleus)
 - There are co-occurrence restrictions on peak versus coda (see e.g. Fudge 1967)
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a data driven argument that CV forms a unit in CVC words

- Hebrew (Share and Blume 2005): *Syllable splitting in literate and preliterate Hebrew speakers: Onsets and rimes or bodies and codas?* A: bodies and codas.
 - language specific finding, contrasted with English speakers in the literature.
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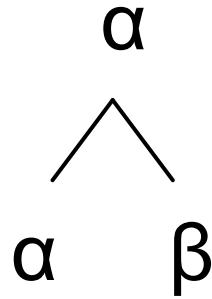
Economy of CHL

- Given that phonology is linguistic, considerations of economy within CHL recommend the pursuit of a common mechanism underlying the construction of sentences and syllables.
 - Modularity: how unique is the form of the common mechanism in the phonology module compared to that in the syntax module?
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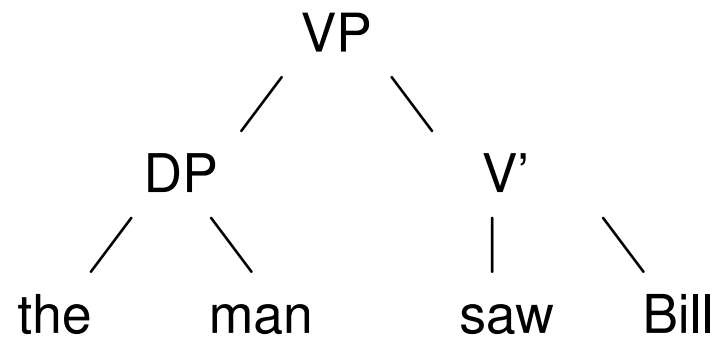
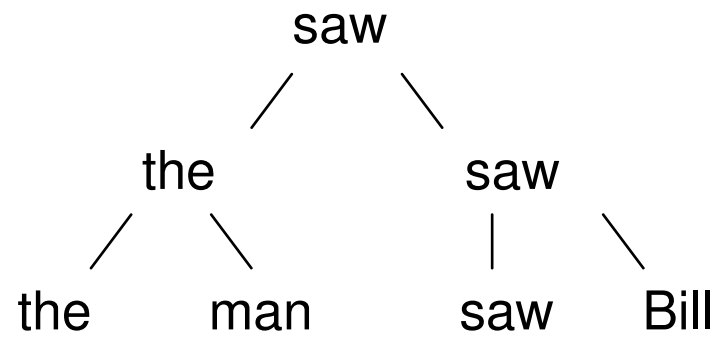
Bare Phrase Structure

- Therefore, I assume the relevance of Bare Phrase Structure to syllables.
 - In Bare Phrase Structure, the labeling of a constituent and its head is identical: take two items, α and β . Through Merge, construct a new item γ . Give γ the label of the head of the newly formed constituent: Merge (α , β) \rightarrow $\{\alpha, \{\alpha, \beta\}\}$.
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array: (α, β)



A VP:



Phases

- The derivation of an expression is hypothesized to proceed by *phase*.
 - a domain for interpretation
 - imposes a locality on certain operations, such as movement operations
 - Given the view that labeling is expressing an equivalence relation between a constituent and its head, the following analysis of phases is possible (examples and analysis from Vergnaud et al 2005)
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Analysis of phases

- (1) (C that (T Past ((she) (v-V see him))))
 - (i) Phase I: (v-V see him)
 - (ii) Phase II: (C that (T Past (v-V (she) see)))
 - Vergnaud points out, that given the equivalence between a head and a constituent in this system, the structural description in (ii) is ambiguous between that of phase II and the entire structure in (1)
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- (1) (C that (T Past ((she) (v-V see him))))

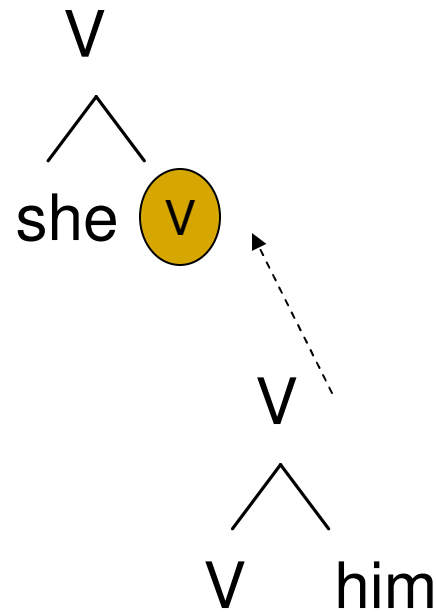
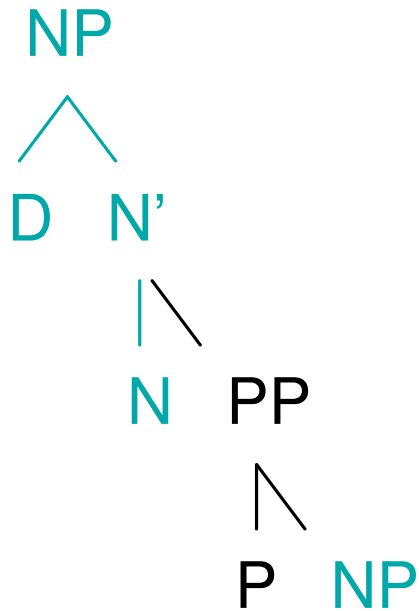
 - (i) Phase I: (v-V **see him**) < - -> (**see**)
 - (ii) Phase II: (C that (T Past (v-V (she) **see**)))
< - -> (C that (T Past ((she) (v-V **see him**))))

He further argues that the relation between the reduced (ii) and expanded form of the sentence (1), which includes (i) is essentially recursive since it involves the substitution of a phase for its head in a higher phase and can be described in terms of Chomsky's *generalized transformations*. The system of phases forms a T-marker. (Vergnaud 2005)

The idea of recursion

NP \rightarrow (det) N (PP)

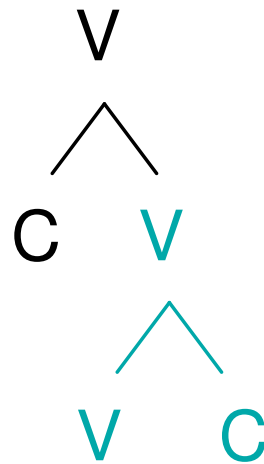
PP \rightarrow P NP



bare syllable structure and phonological cycles

- I propose that a CVC syllable consists of two dependency relations: $\{C,V\}$ and $\{V,C\}$, each of which constitute a (purely phonological) *cycle*.
 - Why not phase? A: in phonology, not a domain for interpretation or impenetrability
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Bare syllable structure



Bare syllable structure

(ii) V



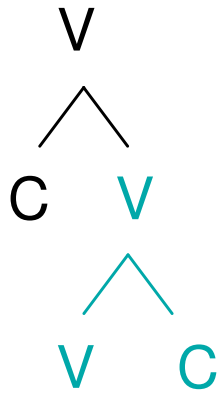
C V

(i) V



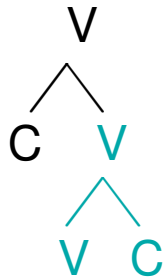
V C

The ambiguity of cycle II



- (i) cycle I: $({}_v V C)$
- (ii) cycle II: $({}_v C V)$ or in expanded form:
(1) (CVC)

From the point of view of cycle II, there is a constituent CV. And from the point of view of cycle I, there is a constituent VC.



- (i) cycle I: (_vV C)
- (ii) cycle II: (_vC V) or in expanded form:
(1) (CVC)

Given that the relation between *CV* and *CVC* is mediated by a generalized transformation involving substitution of a constituent for its head, we do find (limited) recursiveness in syllables contra the claims of Carstairs-McCarthy (1999).

Empirical support for the proposal

- Evidence that these two levels of analysis: cycle I and cycle II can be treated independently by the grammar can be found in a version of the secret language Káll (Wolof, field notes 2007, a version slightly different from those reported in Ka 1988).
- (5) ~~[dama]~~ ~~[dem]~~ = *I go; I left* → amada
emde *Káll version*
- Note that the initial mora of each prosodic word is copied and the initial rhyme is left behind.

The appearance of both the rhyme (word initially) and the initial mora (word finally) can

More Kall

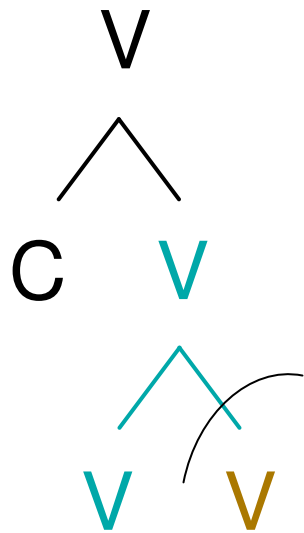
- (field notes, and Shimada 2007)

Wolof:	Kall:	gloss:
■ kəpp	əpp#kə	<i>to spill</i>
■ baŋ	aŋ#ba	<i>to refuse</i>
■ ndaa	aa#nda	<i>water container</i>
■ gis-gis	is-gis#gi, isgi-isgi	<i>vision</i>
■ loxo	oxo#lo	<i>hand</i>

More complex syllables

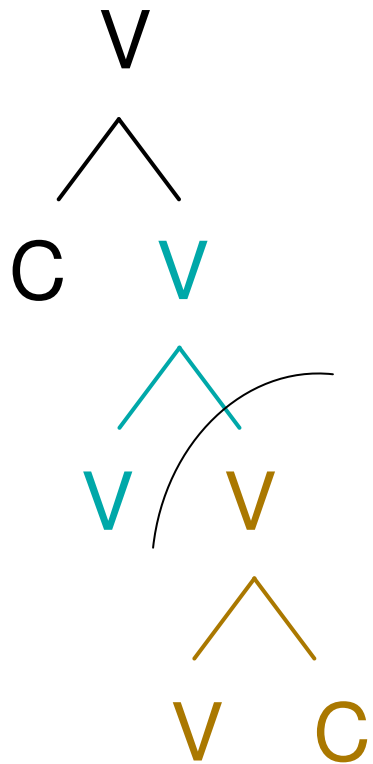
- CVV
 - CVVC
 - CVCC
 - CVC (“branching nucleus”/extra heavy)
 - ??CVVCC
-

CVV

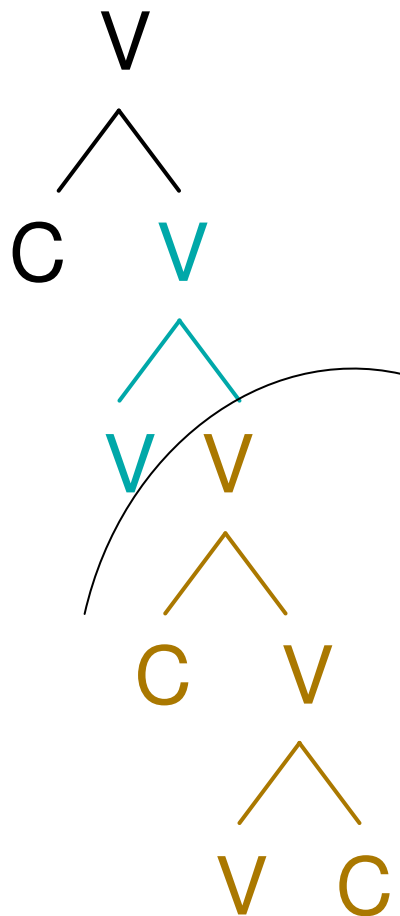


V as complement of V

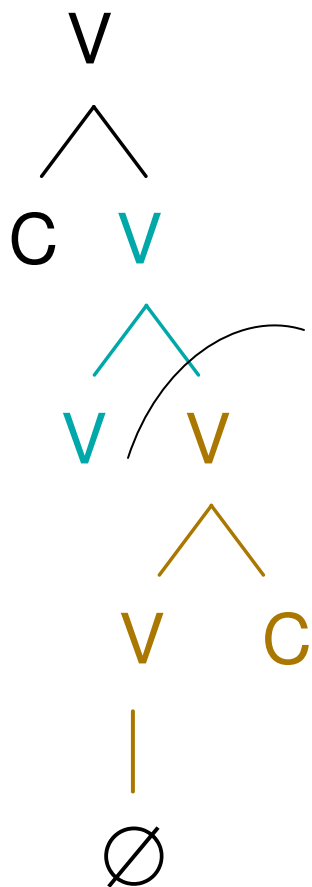
CVVC



CVCC through a “light” vowel (V), which licenses an empty vowel (V)



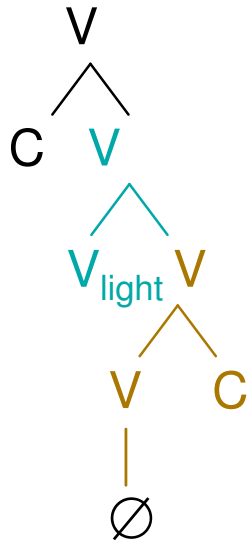
CVC through a light vowel (V) which
licenses an empty vowel (V) (heavy CVC)



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- Can weight be read off the T-marker, perhaps by counting cycles?
 - As usual for prosodic structure, units of like labels are joined together –(subsyllabic CV units) as V to V and foot to foot, etc.
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Compensatory Lengthening and Preservation of Weight

- The core case of compensatory lengthening of a vowel following loss of a moraic consonant is straightforward:
- Heavy C: CVC where a light vowel is involved (see slide 25):



If maximally one empty element is allowed per cycle, loss of the moraic C would even require compensatory lengthening of the vowel.

CVvC → CVV

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