

**Autosegmental Phonology**

Ch. 10 of Odden

Improved phonological **representations** (rather than rules or levels) but affects how we write rules. The original conception of phonetic representation involved **segments in linear order** or segment-based "**feature bundles**"

**Suprasegmental Phenomena:** noted for stress, tone, nasality, vowel harmony  
abstracted away from articulation of individual segments,  
seemed phonologically a property of a syllable or word.

John Goldsmith (1976) MIT PhD diss **Autosegmental Phonology**

Non-linear representation: **not only a one to one relationship of segments to features.**

One piece of information or feature specification can be distributed over more or less than a single position, in various **possible segment to feature relationships:**

1 : 1      1 : many      many : 1      1 : 0      0 : 1

**First used for tonal phenomena**

Tone languages: use pitch differences to make phonemic contrasts.  
Some languages use tone to distinguish **lexical items**; some for **grammatical categories**; some for combination of the two.

**Contour tones** = rising or falling; in many languages, we find evidence that contour tones should be analyzed as 2 tones on 1 segment, in "many-to-one" relation.

**Margi** (A Chadic language) has high, low and rising tones.

1) **V-reduction:** Rising tone results from reducing a pair of adjacent vowels to a glide+ vowel:

	indefinite	definite + ári
high	sál	sálári
low	kùm	kùmári
V-loss	?ímí	?ímyári
T-stay	tì	tyári

2) **Tonal melody patterns:** on disyllabic verbs, get only LL, HH, LH (Rising)

if had a free choice of Vs with 3 tone types, we expect 9 possibilities for two syllable words: (L L, L H, L R, H L, H H, H R, R L, R H, R R). But monosyllables and disyllables have only the same three patterns: L, H, LH

3) **Tonal polarity:** morpheme has tone opposite to that of the base. Depends on edge of contour tone it is adjacent to.

	[a] polar prefix	base	[gu] polar suffix
à sá gù	L	H	L
á wì gù	H	L	H
á vǎl gù	H	LH	L

Problem for feature bundles: patterning [+rising] with [-high] to left and [+high] to right.

### Autosegmental representation:

Two tiers of information: tonal tier and segmental tier. "Association lines" show that they are linked (synchronized, produced simultaneously).

### Notational Conventions:

T	T	T T	V'	T'	T	T
	/\	\/			:	≠
V	V V	V	free	free	V	V
tones linked to			V-slot	Tone	establish	Delink
vowels			(floating)	(floating)	a link	

**Tone Stability** = when tone-bearing unit is deleted, the tone it bore appears on another V. Now we have a natural description for it.

### What rules can do now:

Add autosegment (tone, feature, segment)  
Delete autosegment (tone, feature, segment)  
Add association line  
Delink from association line

**Well-formedness Convention (WFC):** Association lines do not cross.

### Universal Association Convention (UAC) (Goldsmith 1976)

Match the tones and tone-bearing units one to one, left to right (maybe a parameter).

Three ways a Tone-Bearing-Unit (TBU) can get its tone:

- 1) unpredictable linking, marked in a lexical representation
- 2) the Universal Association Convention
- 3) via a Default Rule that fills in empty TBUs

### Obligatory Contour Principle (OCP) (Leben 1973)

In lexical representations, adjacent tones are not identical.

(The OCP later is extended in various ways. Think about the Twin Sister convention: p. 307).

### Autosegmental Phonology and Non-Tonal Phenomena

**Vowel Harmony** (as in Yawelmani, Hungarian, etc.): All vowels in a certain domain, often the word, share phonological properties. Previous rules relied on Greek variable notation. Write an **autosegmental rule** for Yawelmani (round spreads when vowels agree in height).

Autosegmental **rules** also useful for: **Nasality** (Desano, Malay, Gokana, etc.), **Voicing** (Japanese Rendaku), or any **assimilation** (especially place, which leads to feature geometry); also **compensatory lengthening**

Also useful for **representation** of: affricates, prenasalized stops, short diphthongs, geminates and long vowels, C's with off-glide, non-concatenative morphology, and much much **more**.