

Discussion of Jurgec, Inkelas & Shih and Shih & Inkelas Papers

Preliminary Confession: If I could choose, I would make phonology autosegmental!

- (i) Autosegmental representations and autosegmental spreading do a lot for us.
- (ii) There are problems.
- (iii) But doesn't everyone have problems?

I therefore hope that Peter can be successful in keeping “agreement by spreading” (ABS). Although I'll offer some sympathetic applications, I have questions whether we need to extend ABC or add qqq, given the arsenal of devices we already have at our disposal, including (but not limited to):

- (i) Tonal and root nodes
- (ii) Zecian moraic syllables ($\mu_s\mu_w$) σ
- (iii) Various featural and geometric suggestions to account for the interaction of consonant types (voicing etc.) and tone, e.g [stiff], [slack], grounding conditions (Archangeli & Pulleyblank 1994 etc.).

Consider first Shih & Inkelas' introduction of qqq to account for tonal contours and TBUs.

- (1) The first evidence: rare contour tone copying process in Changzhi diminutive construction (Bao 1999:72)

a.	/kuə ₂₁₃ -tə ² ₅₃₅ /	→	[kuə ₂₁₃ -tə ² ₂₁₃]	'pan-DIM'
b.	/səŋ ₂₄ -tə ² ₅₃₅ /	→	[səŋ ₂₄ -tə ² ₂₄]	'rope-DIM'
c.	/ti ₅₃₅ -tə ² ₅₃₅ /	→	[ti ₅₃₅ -tə ² ₅₃₅]	'bottom-DIM'
d.	/k ^h u ₄₄ -tə ² ₅₃₅ /	→	[k ^h u ₄₄ -tə ² ₄₄]	'pants-DIM'
e.	/təu ₅₃ -tə ² ₅₃₅ /	→	/təu ₅₃ -tə ² ₅₃ /	'bean-DIM'

But how do we know that this is “phonological” vs. “constructional”, as in Barasana melody agreement:

- (2) Copying of bisyllabic H-H or H-L melody from possessive pronoun onto following noun (Gomez-Imbert & Kenstowicz 2000:438-9), showing that agreement is suprasegmental (not subsegmental):

	~kúbú (H-H) 'shaman'	~bídi (H-L) 'pet'
~bádí (H-H) 'our'	~bádí ~kúbú	~bádí ~bídi
~ídà (H-L) 'their'	~ídà ~kúbù	~ídà ~bídi

- (3) This (also rare!) tonal agreement applies long distance as it skips over a L first syllable of the noun:

	~bábá~rá (L-H) 'friends'	wìhí-bo (L-HL) 'tray'	
~bádí (H) 'our'	~bádí ~bábá~rá	~bádí wìhí-bó	(cf. Sande, this conference, for phonological copying across words)
~ídà (HL) 'their'	~ídà ~bábá~rá	~ídà wìhí-bò	

A second proposal is that ABC and qqq are needed to account for interaction of consonant voicing and tone. The following sche Ngizim, a Chadic language of Nigeria, as presented by Hyman & Schuh (1974: 107):

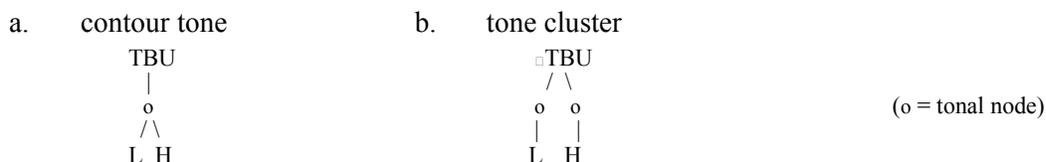
(4)	a.	/L-H/ (= Nupe)	b.	/H-L/	Halle & Stevens (1971)
	voiceless obstruent :	ápá → n.c.	ápà →	ápâ	[+stiff, -slack]
	voiced obstruent :	ábá → àbǎ	ábà →	n.c.	[-stiff, +slack]
	voiced sonorant :	ámá → àmǎ	ámà →	ámâ	[-stiff, - slack]

Hyman & Schuh: voiced consonants do not conspire to “cause” L tone spreading, rather voiceless obstruents BLOCK LTS; similarly, voiceless consonants and sonorants do not join to cause H tone spreading, rather voiced obstruents (and only obstruents) BLOCK HTS. Sonorant consonants are like vowels: They don't care what tone goes through them! Not clear if “similarity” is really involved since: (i) voiced implosives usually pattern with voiceless obstruents; (ii) depressor consonants are often not voiced (Schachter 1976, Traill 1990, Downing 2009). One fact which may lend itself to a closure+release analysis of consonants is that depressor consonants only affect the FOLLOWING vowel, a directional asymmetry due to aerodynamics, represented as:

(5)	a.	a	p	a	b.	a	b	a	c.	a	m	a	
			><				><				><		
			H				L						(H = [+stiff]; L = [+slack] or some other such indication of pitch effects)

“Note that Shih (ms.) claims that markedness constraints banning *H/[+voiced] and *L/[-voiced] are still necessary to capture typical depressor and elevator consonant blocking effects in an ABC framework.” (Shih & Inkelas paper, p.9)

(6) Contour tones can be handled by something like Yip's (1989:150) tonal geometry distinctions:



(7) Re “diphthongs”, the second part of /Vi/ sequences are transparent in Turkish, as in Bantu height harmony. The following is from Lulamogi (Uganda):

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|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <p>a. y-a-lim-ilé ‘s/he cultivated’
 y-a-tum-ilé ‘s/he sent’
 y-a-βal-ilé ‘s/he counted’</p> | <p>b. a-sek-elé ‘s/he laughed’
 a-kol-elé ‘s/he worked’</p> |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|

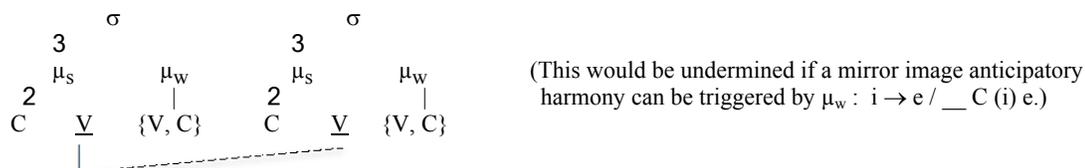
(8) Interestingly, when there is “imbrication”, the fused /i/ does not harmonize:

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|----------------------------------------------------------------------------------------------------------------------------------------|
| <p>a. /e-a-lekel-ile/ → a-leke<i>i</i>l-e ‘s/he has ceased’
 b. /e-a-kohol-ile/ → a-koho<i>i</i>l-e ‘s/he has coughed’</p> |
|----------------------------------------------------------------------------------------------------------------------------------------|

(9) /ei/ and /oi/ condition mid vowel harmony

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|------------------------------------|---------------------------------------|
| <p>a. y-a-beih-elé ‘s/he lied’</p> | <p>b. y-a-goit-elé ‘s/he churned’</p> |
|------------------------------------|---------------------------------------|

(10) This could be handled by Zec's (1988) syllable, spreading or agreement from syllable head to head:



(11) In apparent support of “phonological teamwork” (Lionnet, this conference), there are also cases where /ai/ conditions mid harmony! (Neither /a/ nor /i/ can do this alone.)

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|-------------------------------------|---------------------------------------------------|
| <p>a. y-a-gait-elé ‘s/he mixed’</p> | <p>b. y-a-βaiz-elé ‘s/he crafted (with wood)’</p> |
|-------------------------------------|---------------------------------------------------|

Note that /Vi/ does not copy as a unit as was claimed for tonal contours (reduplication is not a good test!). Question re discrepancy between tone and segmental qq: why (aai) ≠ (iaa) vs. (LHH) = (HLL); no (aai), (iaa), (LLH), (HHL)? Could there be a possible contrast? The only evidence for more than simple closure and release (cf. Steriade's 1993 aperture theory) is the maximum of a tripartite contour on a short vowel TBU: LHL, HLH, e.g. Nupe *mĩ* ‘me’. There isn't anything comparable like a short vowel *aia*, *iai*, is there? (Go for ^m*b*^m and ^b*m*^b?)

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(1) Nasal Consonant Harmony (NCH) in Yaka: Perfective -idi / -ele become -ini / -ene after a nasal consonant

a.	tsúb-idi	‘vagabonder’	b.	tsúm-ini	‘coudre’
	kúd-idi	‘chasser qqn’		kún-ini	‘planter’
	kéb-ele	‘faire attention’		kém-ene	‘gémir’
	sód-ele	‘déboiser’		són-ene	‘colorer’

(2) NCH can be triggered by a nasal which is several syllables away

a.	<u>m</u> ák-ini	‘grimper’	b.	f <u>ɲ</u> úk-ini	‘bouder’
	<u>m</u> ék-ene	‘essayer’		há <u>m</u> úk-ini	‘se casser’
	<u>n</u> ók-ene	‘pleuvoir’		<u>m</u> ítuk-ini	‘bouder’
	<u>ny</u> éék-ene	‘se baisser’		<u>n</u> útúk-ini	‘s’incliner’

(3) /mb, nd, ng/ do not trigger, undergo, or block NCH (i.e. they are transparent)

a.	bímb-idi	‘embrasser’	b.	<u>m</u> wááng-ini	‘semer’
	kúúnd-idi	‘enterrer’		<u>n</u> ááng-ini	‘durer’
	bééng-ele	‘mûrir’		<u>m</u> ééng-ene	‘haïr’
	ngéng-ele	‘luire’		<u>n</u> óóng-ene	‘viser’

(4) Post-nasal denasalization: If /mb, nd, ng/ were to become mm, nn, ŋŋ, they would be undone as mb, nd, ŋg!

a.	m + m	→	mb	e.g. [m- [mak-idi]]	→	m-mak-iní	→	m-bak-iní	‘I carved’
b.	n + n	→	nd	e.g. [n- [nuuk-idi]]	→	n-nuuk-iní	→	n-duuk-iní	‘I smelt’
c.	ŋ + ŋ	→	ndy	e.g. [ŋ- [ŋem-idi]]	→	ŋ-ŋem-ené	→	n-dyem-ené	‘I pushed’

N.B. Every Bantu language that has transparent NC also has N+N denasalization; cf. Kongo, Punu etc.