Nasal Phenomena in Yaminawa (Panoan, Perú)

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1ST WORKSHOP ON NASALITY IN LANGUAGES OF SOUTH AMERICA

Overview

- Two types of nasality:
  - 1. Morphological: leftward spreading, morpheme based
  - 2. Phonological/segmental: non-spreading (rightward co-articulation?), segment based

- Oral stops are underlyingly nasal stops
- Nasal morphemes (roots) have limited tonal contours
- Nasal words have limited phonotactics
- Airflow data can help clarify the degree of leftward morphological nasal spread/harmony and rightward coarticulation

¡Mã wishpi shĩnãbakiki kedeki!
¡No olvides escribir con cejas!

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Background about nasality

- Loos 2006: Describes Yaminahua of the Yurúa river as having discontinuous spread from final, deleted /n/ to first vowel of a root (passing over an intervening vowel)
- Describes voiced stops as prenasalized in oral position
- Mostly shows disyllabic roots where the last vowel was transcribed as oral…

Group 6: Nasal spread over stops

chapo -n^d	cricket	chãpo	chãpo
chipi -n^d	older sister	chĩpĩ	chĩpi
chata -n^d	grandfather	chãtã	chãtã
fake -n^d	son	wã?ẽ	
make -n^d	piranha (a fish)	mã?ẽ	mã?ẽ

Loos 2006 – voiced stop data

- BUT:

Group 3: Nasal spread affecting nasal consonant releases			
nam^{b}i -n^{d}	meat	nãmĩ	nãmĩ
im^{b}i -n^{d}	blood	ĩmĩ	ĩmĩ
xom^{b}a -n^{d}	breast	xõmã	xõmã
rom^{b}e -n^{d}	tobacco	lõmẽ	lõmẽ
fen^{d}e -n^{d}	husband	fẽnẽ	fwẽnẽ
in^{d}o -n^{d}	feline	ʔĩnõ	ĩnõ
man^{d}o -n^{d}	bee	mãnõ	mãnõ
on^{d}o -n^{d}	boar	ʔõno	õno

Loos 2006 – the discontinuous data

Table 11. *tsikin^{d} 'push'*

	Stem-tiro	
1	tsikin^{d}-tiro	push-able
2	tsĩ?itiro	able to push
	Stem-ma	
3	petsikin^{d}-m^{b}a-a	back.push-caus-comp
4	pĩtsi?iba	caused to push him on the back
	Stem, -ma, -ita	
5	petsikin^{d}-m^{b}a-ita	back.push-caus-past
6	pĩtsi?ibaita	caused to push him on the back yesterday
	Stem, -ma, -ka, -i	
7	petsikin^{d}-m^{b}a-i-ka-i	back.push-caus-to-go-prog
8	pĩtsi?ibai?ai	go to make him push it on the back
	Stem, -kin^{d}	
9	petsikin^{d}-kin^{d}	back.push-inf
10	pĩtsi?ikĩ	to push on the back of it

Sepahua Yaminahua

- Doesn't work like Loos 2006.
- Oral stops are either oral or nasal, never pre/post-nasalized
- No evidence of discontinuous spread
- Most of my questions have to do with differences between morphological (spreading) and segmental/phonological (co-articulating) nasality

Segmental inventory

	bilabial	alveolar	post-alveolar	retroflex	palatal	velar	glottal
plosive	p	t				k	
nasal plosive	m	n					
affricate		ts	tʃ				
fricative		s	ʃ	ʂ			(h)
flap/tap		ɾ					
approximant	w (ʍ)				j		

Nasal vs. Oral voiced stops

- When voiced stops are deleted, they trigger nasality on the vowel

(107) a. [wɨ́kã̀w̃ɨ̃̀]

/wɨ́	-kan	-wɨ̃/
come.PL	-PL.IPFV	-IMPER

‘Come!’ (to various)

b. [áʂũ̀tìɾù]

/ák	-ʂun	-tiɾu/
AUX.TR	-BEN	-POT

‘can do it for (him)’

c. [ájáwã́w̃ã́ĩ̀nũ̀]

/ájá	-wáwáín	-nũ/
drink	-CONT.TR	-OPT

‘(I/we) will drink (it) everyday, throughout the day’

Nasal vs Oral voiced stops

- But there is one suffix where nasality is not triggered, the causative /-mad/

(108) [pí:bákàdì]

pí:	*-bád*	*-kad*	*-i*
eat	-CAUS	-PL.IPFV	-IPFV

'they are feeding him'

- So maybe there's also a /d/?
- This is a morpheme to look into!

Metrical phonology

- Metrical phonology triggers the same consonant deletion where /n/ would occur as the onset of a new metrical foot:

(123) a. (ˈá.ʂṳ̀)à

/ák -ʂun -a/
do.TR -BEN -PFV

'did it for someone'

b. (ˈpí.tʃà̀)(ˌʂù.dà)

/pítʃà̀ -ʂun -a/
cook -BEN -PFV

'cooked it for someone'

c. (ˈpí.bá)(ˌʂù.dà)

/pí -mad -ʂun -a/
eat -CAUS -BEN -PFV

'made them eat for someone' (i.e., served food on someone's behalf)

d. (ˈá.já)(ˌbà.ʂṳ̀)ã

/ájá -mad -ʂun -a/
drink -CAUS -BEN -PFV

'made them drink for someone' (i.e., served beverage on someone's behalf)

Morphological (spreading) nasality

- Roots either surface as oral or nasal:

(130)

a. [dàì]
/nai/
'sky'

b. [wárí]
/wárí/
'sun'

c. [nãĩ̀]
/náìnìᴺ/
'arboreal anteater'

d. [w̃ãrà̃]
/wáràmàᴺ/
'pumpkin'

e. [ídàì]
/ínà -i/
climb -IPFV
'is climbing'

f. [ínã̀ì]
/ínàᴺ -i/
give -IPFV
'is giving'

Morphological (spreading) nasality

- Nasal roots also have HL tonal contour, except for a small class of LL:

chm̀ǐ̀	*mm̀pǐ̀*	*nm̀pé̀*
‘pineapple’	‘shrimp’	‘housefly’

- Are these different in terms of the realization of nasality?

Morphological (spreading) nasality

- Roots (and affixes) can be nasalized by certain morphemes
- Ergative/Instrumental case, Augmentative, Malefactive, Reciprocal, others

(131) a. [w̃ɪ́ɾ̃ù̀w̃à]

/wɪɾu -wâᴺ/
eye -AUG

'big eye'

b. [pɪ́stɪ̀w̃à]

/pɪsti -wâᴺ/
horsefly -AUG

'big horsefly'

c. [mɪ̃ɪ̃nà̃kàdì]

/mɪ́ɪ́ -nâᴺ -kan -i/
hit -RECIP -PL.IPFV -IPFV

'they're fighting'

d. [pɪ́mɪ́nà̃kàdì]

/pí -mad -nâᴺ -kan -i/
eat -CAUS -RECIP -PL.IPFV -IPFV

'they're feeding each other'

Morphological (spreading) nasality

- Some morphemes are realized as nasalization only:

(133) a. [w̃ɨ́ɨ̀]

/wɨnɨ =N̂/
husband -ERG

b. [nṹpɨ̀]

/nupɨ =N̂/
machete -INS

c. [ɾɨ́tɨ̀ə̀wù]

/ɾítí -N̂ -a =wù/
kill -MAL -PFV -PL

'They killed (it) to (his/her) detriment.'

d. [ṹʂə̀]

/ùʂà -N̂ -a/
sleep -CAUS -PFV

'(S/he) put (him/her) to sleep.'

Morphological (spreading) nasality

- If stops are underlyingly nasal, then what we're seeing is actually oralization… But if they're underspecified, then let's call it nasalization
- Triggered by nasal "feature"
- Targets are voiced segments
  - What about flap?
  - Does /j/ behave differently?
- All segment types appear to be transparent

Morphological (spreading) nasality

- Not all morphemes with surface nasality trigger nasal spread:

(135) a. [ájákṹĩ̀]

/ájá	-kṹĩ̀	-i/
drink	-INTENS	-IPFV

‘is drinking well’

b. [ájánã́bɨ̀j]

/ájá	-nã́mɨ̀	-i/
drink	-INTENS	-IPFV

‘poor thing is drinking’

Morphological (spreading) nasality

- But are there differences between lexically nasal roots and roots that have aquired nasality via spread?
- E.g.,

  [ñũwɨ̃] /juwɨN/ ‘brujo’ vs. [ñãwã] /jawa =N/

- Speakers seem to be more okay with writing <ñ> for inherent than aquired nasality in initial position, but is this just some weird phonotactic thing? (there are very few lexemes with initial [j̃]

Diachronic Tangent

- Morphological nasal features seem to come from diachronically deleted nasals
- E.g., ergative in most other Panoan languages is –n
  - For roots longer than 2 syllables the ergative is –nẽ
- Sometimes you can still see the deleted nasal synchronically:

[ísì]	→	[ísìníkì]
/ísìᴺ/		/ísìᴺ ík -i/
pain		pain AUX.ITR -IPFV
'pain'		'is sick'

Root phonotactics

- You can't mix oral and nasal
- Exception: [j̃á̰k̃ʲʃ] 'axe handle' in Nahua (it's oral in Yaminahua)
  - There may be additional exceptions in Nahua!
  - So far they're not disyllabic: e.g., [jṵ́ná̰] 'game animal'

- Other exceptions involve morphological complexity:
  - ergative case on de-truncated nouns: [áwápa̰] 'tapir-ERG'
  - Words formed with classifiers: [ʃíkíʃw̃ʲ] 'charichuelo fruit' (-w̃i = CLF:fruit)

- Words with initial /j̃/ are quite rare compared to oral /j/ or other nasal(ized) segments

Inherently oral roots

- Some roots (previewed on the slide before) block nasal spread through the (whole) morpheme:
  - 1) de-truncated roots have final nasal vowel only (?)

(120)	a.	(ˈá.wà)	a′.	(ˈá.wá)pã̀
		/áwápà/ tapir		/áwápà =N/ tapir =ERG
	b.	(ˈká.pɨ̀)	b′.	(ˈká.pɨ́)tã̀
		/kápɨ́tà/ alligator		/kápɨ́tà =N/ alligator =ERG

  - 2) roots with 3+ syllables take "full" form of ergative –nɨ̃

    báʃárú -> báʃárúnɨ̃̀ 'jaguar' + erg

Questions

- How much does nasality co-articulate to the right?
- How far does it spread in de-truncated roots?
- Is the realization of segmental nasality different than morphological nasality?
- Are non-spreading nasal morphemes different somehow? (other than not spreading nasality…)
- What's up with the cases where nasality defies the phonotactic restrictions?
- Are inherently nasal and aquired nasal root surface forms different?