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Nasalization in Lhasa Tibetan*

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1.0 INTRODUCTION

1.1 Theoretical Import

One of the basic tenets of the Neogrammarians was the Regularity Principle:

> All sound changes, as mechanical processes, take place according to laws that admit no exceptions (*ausnahmslose Lautgesetze*) within the same dialect, and the same sound will in the same environment always develop in the same way....
> [Robins 1979:182f [1]]

If sound change is regular, then there might be a distinction between the innovation, the implementation of the innovation, and the spread of the sound change in the socio-linguistic dialect in a spatio-temporal sense. Conceivably, the implementation, as well as the spread, could be abrupt or gradual. Yet if gradual, the implementation could be strictly phonetic with class features becoming more inclusive or the spread could be lexically mediated to apply to specific subsets of the lexicon, such as more common words first or culturally- or semantically-determined words, at specific times.

If a sound change diffuses through the lexicon (as advocated by Wang & Lien 1993, Chen & Wang 1975[2]), there is a point in time before the sound change begins and no pertinent lexical items are affected; there are points of time when the sound change is in progress and some pertinent lexical items are affected; and a point of time at which the sound change is essentially complete; thus, there are discrete points of time at which the change can be seen as non-regular in a Neogrammarian sense, because not all pertinent lexical items are affected. Wang & Lien 1993:348 further argue for "an extended version of L[exical] D[iffusion] in which the conflict between sound change and borrowing can be resolved and there is an interaction between coexisting systems induced by language contact", which they term "bi-directional diffusion." In their scenario, lexical items and processes from different dialects or languages diffuse into each other. This latter notion might be relevant to diffusion of lexical items which are unique to different styles or registers of a language.[3]

1.2 Sound Change in Lhasa Tibetan

In modern Lhasa Tibetan, the final codas of the classical language are, in general, being lost; specifically, *-t*, *-s*, *-n*, *-l* have been lost and the labial and velar nasals are being lost in some lexical items. However, the loss of the dentals has resulted in the fronting of back vowels and the loss of the nasals has given rise to nasalized vowels. According to Goldstein & Nornang 1978, the following forms occur:

Phoneme	*Transcription*	*SR*	*Gloss*
t	skad-btaŋ	[qɛɛ-tãã < *skat-btaŋ]	invite
	mgo-tshod	[qo-tshöö < *mgo-tshot]	understand
s	dbus	[üü]	Dbus
	he-las	[a-lɛɛ]	first
n	yon-tan	[yõ-tẽẽ]	knowledge
	dgun-ka	[qũ-qâ]	winter
l	'bol-'bol	[põõ-pöö]	soft
	dpal-khog	[pɛɛ-qoo]	forehead

(The transcription represents Written Tibetan; SR is the surface representation, i.e., the surface phonetic form.[4] It is assumed that syllable-final devoicing occurred before syllable-final loss, i.e., /d/ > /t/.)

In addition to the nasalization produced by -n in coda position, nasalization also occurs with the labial nasal -m and the velar nasal -ŋ, as in the following:

Phoneme	*Transcription*	*SR*	*Gloss*
m	sbom-po	[põ-po]	thick
	skam-pa	[qã-pa]	tongs
ŋ	gshe-gshe btaŋ	[ʃɛ-ʃɛɛ tãã]	scold

However, there are exceptions word-finally and word-internally such as:

bsam [sam] 'think' 'breŋ [ʈeŋ] 'rope bridge'
sbom-pra [pom-ʈa] 'thickness' rkaŋ-pa [qaŋ-pa] 'foot.'

1.3 The Problem

Is this an example of a sound change in progress diffusing through the lexicon by means of expanding structural descriptions and conditioning environments, so that eventually all VN (vowel + nasal) sequences will become nasalized vowels unless otherwise modified by another sound change? Or is it an example of lexical diffusion, or even bi-directional diffusion, of a sound change "caught in midstream" [Wang & Lien 1993:345]? Is this vowel nasalization even a sound change, initiated by the loss of the dental nasal, spreading to other nasals, or simply a post-lexical phonetic rule?

> Vowel nasalization occurs very frequently on the surface, but it is evident that it is the reflex of underlying final nasal consonants because these final nasals are frequently pronounced as segments in more deliberate styles of speech. Further, when they are realized as vowel nasalization there is often a near segmental transition between the nasalized vowel and the following segment, as illustrated in example set (67) [the second example below is from that set]. Further, the distribution of the final nasal consonants is restricted in such a way that there is only a small area of possible overlap. [Hari 1979:47]

Hari 1979:26 gives several examples of this:

/'taŋ-pa/	[taŋba/taŋβa/tã:βa]	send
/k^{h}ola son tɛʔ/	[k^{h}ola so:nteʔ]	Give him seeds.

Furthermore, she specifies that: "Final /m/ is pronounced as a segment. Of the remaining two nasals /ŋ/ occurs only after /a, o, i/ and /n/ only after / ẽ, õ, ũ, ĩ/ [p.49]." However, her chart therein indicates the nasalized [ũ:] and [õ:] are re-interpreted as /oŋ/, nasalized [õ:] and [ẽ:] as /en/, and nasalized [ĩ] as ambiguous between /iŋ/ and /in/. This seems to indicate that a phonetic rule of nasalization has resulted in relexicalization of forms with nasalized vowels. The rule reinterpreting these forms has confused the back vowels [ũ:] and [õ:] as /oŋ/; the front vowels [õ:] and [ẽ:] as /en/; and the nasalized high front vowel [ĩ] as /iŋ/ in some words and /in/ in others. The result is a merger of the vowels /u/ and /o/ before the velar nasal, and /o/ and /e/ before the dental nasal.

Because there is a distinction between nasalization in honorific and non-honorific speech, these two styles will be contrasted here.

2.0 Phonemes, Historical Processes and Morphological Alternations

2.1 Phonemes

In her analysis, Hari 1979:28 establishes the following phonemes:

i	ü	u
e	ö	o
	a	

Although Goldstein and Nornang 1978:xv, xvii do not establish phonemes, they do list the following vowel sounds:

i	ĩ	ü	ũ		ũ	u
ê						ô
e	ö	õ			õ	o
ɛ				â	õ	o
				a	ã	

The symbols [ê] and [ô] represent diphthongs somewhat similar to those in the English words *say* and *sew*, respectively. The symbol [â] represents schwa (p. xvii).[5]

2.2 Processes

There are several processes relevant here: final obstruent devoicing, final dental loss, nasalization, and coda formation.

2.2.1 Final Devoicing

Final devoicing of all obstruents (b, d, g) seems to be historically first and is complete word-finally and word-internally:[6]

FINAL DEVOICING

Phoneme	*Transcription*	*SR*	*Gloss*
b	gab	[qâp]	to hide
	skyabs-bcol	[kâp-chöö]	refugee
d	gyud	[küü < *kut]	tantra
	brgyud-nas	[küü-ni <*kut-ni]	through
g	bkug	[quu < * guk]	to bend
	gug-gug	[koq-koo]	crooked

2.2.2 Final Dental Loss

Final dental loss involved the phonemes /t, s, n, l/. This is generally complete word-finally and word-internally. For /t/, the above chart exemplifies that loss. The chart below illustrates the loss of /s, n, l/:

FINAL /s/, /n/ AND /l/ LOSS

Phoneme	*Transcription*	*SR*	*Gloss*
s	dbus	[üü]	Dbus
	he-las	[a-lɛɛ]	first
n	yon-tan	[y õ ö-tẽẽ]	knowledge
	dgun-kha	[qũ-gâ]	winter
l	'bol-'bol	[p öö-pöö]	soft
	dpal-khog	[pɛɛ-qoo]	forehead
	bkal	[qɛɛ]	hang up
	skal-bzang	[qɛɛ-sãã]	a name

Final dental loss has resulted in only front vowels, rounded and unrounded, in environments which historically had dental codas.