On Consonantal Intervention in Vowel Harmony

Shakuntala Mahanta, Utrecht University

The core of this paper deals with three kinds of consonantal intervention encountered in Assamese (Indo-Iranian, belongs to the Eastern Magadhan sub-group) vowel harmony: blocking by the [+low –ATR] vowel /a/ (1), blocking by the nasals /n/ /m/ and /ŋ/ (2), and blocking by consonants in a moraic position (3). Assamese has an eight vowel inventory —/i, u, ʊ, e, o, ɛ, ɔ, a/ and this system contrasts the [+ATR] set /i, u, e, o/ with the [-ATR] set of vowels /ʊ, ɛ and ɔ/. While /a/ is opaque to harmony, word-final /i/ and /u/ trigger harmony in the preceding [-ATR] vowels /ɛ/ /ɔ/ and /ʊ/ resulting in the emergence of [e] [o] and /u/ respectively (4). The goal of this paper is to show that local intervention (5 a) by both vowels and consonants are driven by the same principle – lack of a feature specification. Non-local blocking (5 b), i.e. intervention by segments which are not segmentally adjacent is the result of prosodic requirements only. The arguments in this paper will motivate a theory of segments that may stand between the trigger and target and impede spreading of the relevant [αF] vocalic feature.

A major contention of this paper is that a relationship of harmony may be established between units of the prosodic hierarchy i.e. segments, syllables, moras, and feet. While the nasal feature may be associated to all levels of the prosodic tier, and therefore block harmony even if it is present in the onset position, other consonants (in Assamese) can block harmony only when they intervene between two vocalic moras. (I also argue from acoustic and articulatory evidence that the tongue root movements for nasals involve a [-ATR] specification). On the other hand, the claim that a final consonant after a syllabic nuclei is the weight bearing unit which impedes the process of harmony by blocking agreement between the two vowels has also been shown for Lango (Archangeli and Pulleybalnk 1994) and Yucatec Maya (Krämer 2003). Assamese, like Yucatec Maya and Lango, reckons a mora as a significant unit not only by assigning weight to the coda consonant but also by considering a mora as a category of agreement.

Previous research on harmonic phenomena by Archangeli and Pulleyblank (1994), Piggott (1996) and Odden (1994) on adjacency and van der Hulst and van de Weijer (1995) had also proposed that harmony/disharmony involves a paradigmatic identity relation. Building on these proposals, I show that harmony blocking by consonants *in a VH language*, is also the manifestation of a prosodic imperative. Nasals are more compatible with vocalic segments than any other consonantal segment. Incompatibility on the other hand, results in segments not being affected by harmony, because those features cannot dock themselves to the relevant prosodic place (*contra* Rose and Walker 2004). If a segment blocks vowel harmony, all less compatible segments will be far less affected by harmony, and if a segment is targeted by vocalic spreading, all more compatible segments will also be targeted. The notion of compatibility as used here should be understood as those elements which have a higher sonority, and therefore cross-linguistically show properties which are universally attributed to vowels. I do not assume that other consonants are not able to block harmony at the level of segmental adjacency. Any consonant may be eligible to block harmony at the local level, provided they are vocalically compatible or they share some feature of the triggering segment including a secondary place feature (e.g. Turkish, Dyirbal etc). However, all attested cases of harmony blocking systematically

by consonants in a non-local position are prosodically governed and that is the coda position.

(1) Blocking by /a/

Word	Gloss	
a. mɔdahi	'drunkard'	*modahi
b. kɔpahi	'of cotton'	*kopahi
c. pɛtari	'covered cane basket'	*petari

(2) Blocking by nasals

	Word	Gloss	
a.	sɛkɔni	'strainer'	(*sekoni)
b.	xɔmɔnia	'a colleague'	(*xomonia)
c.	pʊtɔni	'a dumping ground'	(*putoni)

(3) Blocking by coda consonants

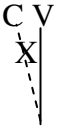
Word	Gloss	
a. bɔn.ti	'lamp'	*bon.ti
b. kɔl.ki	' incarnation of Vishnu'	*kol.ki
c. ɔs.t^{h}i	'ashes of the dead'	*ost^{h}i

(4)Assamese Harmony

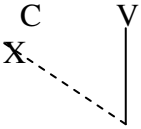
	noun	suffix	adjective	Gloss
a.	tɛz	-i	tezi	strong
b.	bɔl	-i	boli	strong
c.	zʊr	-i	zuri	strong

(5) Local intervention (compatible) Non local intervention (prosodic)

a. V C V C V segment)



b . V C C V



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