The role of phonological contrastivity in neutral harmony

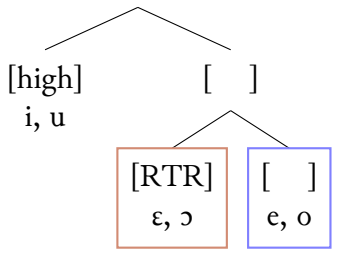
Jade Jørgen Sandstedt
University of Edinburgh

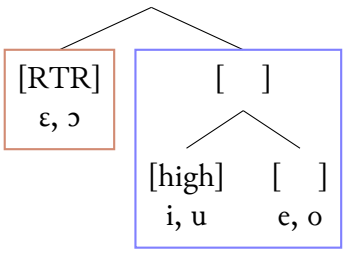
In this paper I advocate a formal account of the role asymmetric phonological contrasts play in motivating neutrality to harmony processes, focussing on microvariation in Yoruba regressive/anticipatory RTR-harmony. Yoruba has an oral vowel series with four advanced /i, u, e, o/ and three retracted /ɛ, ɔ, a/ vowels—lacking underlying high retracted */ɪ, ʊ/ vowels. This asymmetric contrast is associated with a significant amount of cross-dialectal variation in Yoruba vowel harmony as illustrated by the Ekiti, Ifẹ, and Standard Yoruba varieties below which display high vowel harmonic allophony, transparent skipping, and blocking of leftwards [RTR] spreading, respectively (1). This variation has attracted a lot of recent attention (Ọla Orie 2001, 2003; Nevins 2010; Hulst 2012; Dresher 2013), but no existing unified analysis satisfactorily motivates and explains all aspects of the differing Yoruba patterns, and this narrow variation has therefore significant consequences for our understanding of the organization and function of harmony processes.

(1) **Varied vowel harmony patterns in three Yoruba varieties** (Ọla Orie 2003: p. 2)

	Ekiti	Ifẹ	Standard	
a.	ɔrúkɔ	ɔrúkɔ	orúkɔ	'name'
b.	ɛ̀lùbɔ́	ɛ̀lùbɔ́	èlùbɔ́	'yam flour'
c.	ɛ́úrɛ́	ɛ́úrɛ́	ewúrɛ́	'goat'
d.	ɔ̀ʃùpá	ɔ̀sùpá	òʃùpá	'moon'

On the basis of this comparative study, I propose a new approach involving feature spreading within privative contrastive feature hierarchies (Dresher 2009). This model formalizes the role phonological representations play in harmony and neutral harmony. It assumes that phonological features are hierarchically categorized and that feature specifications are determined by cross-linguistically variable feature domains. As illustrated below using reversed [RTR] and [high] feature orderings, the necessity of classifying an asymmetric sound inventory into successive binary groups predicts a limited range of variation in feature specifications on [RTR]-unpaired high vowels which naturally motivates harmony variation consistent with the Yoruba patterns above.





high		i	u
non-high	ATR	e	o
	RTR	ɛ	ɔ

[high] > [RTR]
(Ifẹ Yoruba)

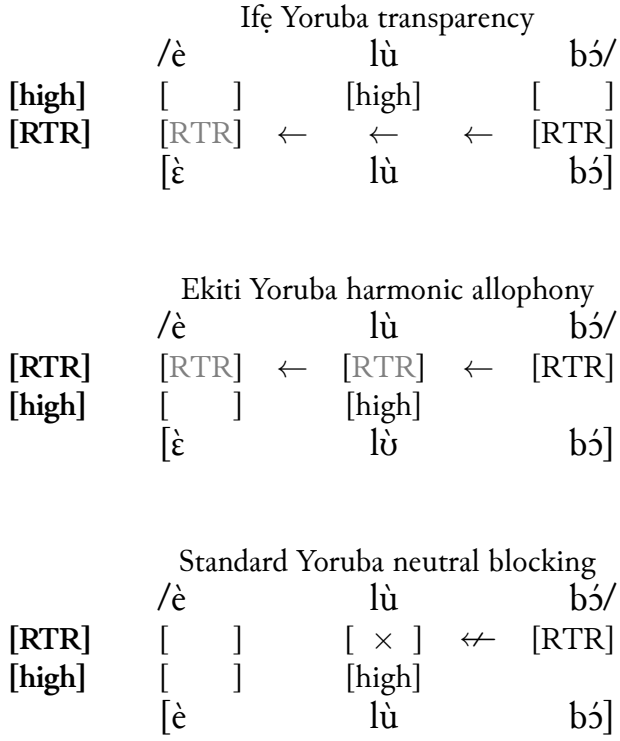
ATR	high	i	u
	non-high	e	o
RTR		ɛ	ɔ

[RTR] > [high]
(Ekiti/Standard Yoruba)

[high] vowels must be categorized either outside or within the scope of the [RTR] harmony feature, making them either invisible/transparent (Ifẹ Yoruba ɛ̀lùbɔ́) or visible/non-transparent

harmony targets (Ekiti/Standard Yoruba), and visible potential targets either undergo harmony (Ekiti Yoruba ɛ̀lʊ̀bɔ́) or behave as neutral blockers due to an additional *[RTR, high] cooccurrence constraint (Standard Yoruba ɛ̀lùbɔ́). This method allows for an effective and straightforward account of the correlation between harmony variation and asymmetric phonological contrasts which motivates both cross-linguistically common harmony and neutral harmony patterns.

(2) **Example [RTR]-spreading with alternate [RTR]/[high] feature orderings**



References

Dresher, B. Elan. 2009. *The contrastive hierarchy in phonology*. Cambridge: Cambridge University Press.

Dresher, B. Elan. 2013. Contrastive features and microvariation in vowel harmony. In Stefan Keine & Shayne Sloggett (eds.), *Nels42: Proceedings of the Forty-Second Annual Meeting of the North East Linguistic Society, University of Toronto*, vol. 1, 141–53. Amherst: GLSA, University of Massachusetts.

Hulst, H.G. van der. 2012. An RcvP analysis of vowel harmony in Yoruba. In Eugeniuc Cyan, Henryk Kardela & Bogdan Szymanek (eds.), *Sound, structure and sense: Studies in memory of Edmund Gussman*, 263–88. Lublin: Wydawnictwo KUL.

Nevins, Andrew. 2010. *Locality in vowel harmony*. Cambridge, Massachusetts: MIT Press.

Ọla Orie, Ọlanikẹ. 2001. An alignment-based account of vowel harmony in Ifẹ Yoruba. *Journal of African Languages and Linguistics* 22. 117–43.

Ọla Orie, Ọlanikẹ. 2003. Two harmony theories and high vowel patterns in Ebira and Yoruba. *The Linguistic Review* 20. 1–35.