

Feature specification in the northern dialect of Ewe

This talk presents an analysis of [ATR] harmony and other vowel assimilation processes in the northern dialect of Ewe. I propose that harmony can be accounted for if /ɛ/ is a featureless vowel, with no specifications in its underlying representation. This proposal relies on the notion that phonological activity is a diagnostic of underlying specifications (e.g. Hall 2007).

There are three harmony processes found in Ewe. I however consider the [ATR]-height harmony system here. In this process, the 3SG pronoun enclitic vowel which is underlyingly /ɛ/ assimilates to the [ATR] and height feature of the root vowel (1a-c). In stems where the root vowel is /ɛ/, the enclitic causes the root vowel to assimilate to its [+ATR] feature (1d).

(1) [ATR]-height harmony in Northern dialect of Ewe

a.	ku-e	=	ku-i	b.	tsɔ-e	=	tsɔ-ɛ
	fetch-3SG		'fetch it'		take -3SG		'take it'
c.	ta-e	=	tɛɛ	d.	fɛ-e	=	fɛe
	draw-3SG		'draw it'		split-3SG		'split it'

When a hiatus is created in Ewe, /ɛ/ is the only vowel deleted regardless of its order in the VV sequence. I show this in (2a-b) below. In hiatus that does not involve /ɛ/, no vowel is deleted (2c).

(2) Hiatus resolution in northern dialect of Ewe

a.	ɸlɛ	abolo	=	ɸl-abolo	b.	tsɔ	ɛxa	=	tsɔ-xa
	buy	bread				take	broom		
		'buy bread'					'take broom'		
c.	tso	ati	=	tso	ati				
	fell	tree							
		'fall a tree'							

To account for the asymmetric behaviour of /ɛ/ above, I argue that /ɛ/ is not specified for any features in the underlying representation. The analysis of Ewe is supported by comparison with vocalic assimilation processes in Gengbe and Yoruba. Both languages are closely related to Ewe (they have a similar vowel inventory as Ewe) and have vowel harmony processes that have been analyzed in work which played an important role in the development of theories of underlying specifications (e.g. Pulleyblank 1988; Abaglo and Archangeli 1989). Gengbe has a featureless vowel /ɛ/ that behaves similarly as /ɛ/ in Ewe. /ɛ/ in Gengbe is the only vowel deleted in a hiatus (Abaglo & Archangeli 1989). In Yoruba, according to Pulleyblank (1988), /i/ just as /ɛ/ in Gengbe and /ɛ/ in Ewe has an asymmetric behaviour. It is the only vowel deleted when it occurs in a hiatus, it does not trigger certain phonological processes even though all other vowels do. Pulleyblank (1988) concludes that /i/ in Yoruba is unspecified for features in the underlying representation.

Using phonological activity (Hall 2007; Dresher 2009), I propose that the features [round], [ATR], [high] and [back] are contrastive in the northern dialect of Ewe. However, the analysis of /ɛ/ as underlyingly unspecified for all features poses challenges for radical underspecification (e.g. Pulleyblank & Archangeli 1989) contrastive specification (e.g. Steriade 1987) and the theory of the contrastive hierarchy (Dresher 2009; 2018). Assuming [+ATR] underlying specification in radical underspecification, even though it gets a fully unspecified /ɛ/, results in a specification where other vowels that need to be specified as [-ATR] in the underlying representation (1b-c) do not get such specifications. Contrastive specification on the other hand is not able to derive a fully unspecified vowel and it also assigns an [ATR] feature to /ɛ/, which is inconsistent with the data presented in (1) above. The theory of the contrastive hierarchy also faces challenges in that, there seem to be no feature hierarchy that captures the asymmetries seen in the language. A hierarchy that is able to account for the unspecified nature of /ɛ/ fails to specify [-back] for other front vowels, a feature necessary to capture back-round harmony. Similarly, in an alternate analysis where /ɛ/ is not fully unspecified for features, contrastive hierarchy is still not able to capture the necessary feature specifications to account for other processes in the language.

References

- Abaglo, Poovi & Diana Archangeli. 1989. Language-particular underspecification: Gengbe/e/and Yoruba/i. *Linguistic Inquiry* 457–480.
- Dresher, B. Elan. 2009. *The Contrastive Hierarchy in Phonology*. Cambridge University Press.
- Dresher, B. Elan. 2018. Contrastive hierarchy theory and the nature of features. In Wm. G. Bennett, Lindsay Hrac & Dennis R. Storoshenko (eds.), *Proceedings of the 35th West Coast Conference on Formal Linguistics*, 18–29. Somerville, MA: Cascadilla Press.
- Hall, Daniel Currie. 2007. *The role and representation of contrast in phonological theory*. University of Toronto Toronto.
- Pulleyblank, Douglas. 1988. Vocalic Underspecification in Yoruba. *Linguistic Inquiry* 19. 233–270.
- Pulleyblank, Douglas & Diana Archangeli. 1989. Yoruba vowel harmony. *Linguistic Inquiry* 20(2). 173–217.
- Steriade, Donca. 1987. Redundant values. *CLS* 23(2). 339–362.