

Language Documentation & Linguistic Theory 2

Opacity in Bantu: in support of the internal organisation of features

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Opacity is a well known and long standing issue that continues to evade analysis in phonological theory. This paper aims to investigate what light Bantu data may shed on this issue by looking at a case of counter-feeding opacity in Kinyamwezi (Tanzania), where phonological processes fail to apply even though their context is met. Kinyamwezi presents a case of the interaction of two processes in this respect; palatalisation and depalatalisation. The instance of opacity results from the fact that depalatalisation only targets derived in contrast to lexical palatals thereby presenting a case of derived environment effects.

The proposed analysis will illustrate that otherwise identical derived and lexical surface segments differ in internal melodic organisation while still being able to map onto identical patterns in the acoustic signal (Harris and Lindsey 1992) and thereby representing identical surface phonetic outputs. This difference in representation provides two targets for phonological processes. In particular, it will be argued that a branching dependency relation has a looser relation with the rest of the elements in the representation than an immediate dominance dependency relation. Thus the former will be seen to be the target of phonological processes (depalatalisation) that the latter is not, resulting in the observed surface derived environment effects.

This analysis appeals to an approach to feature organisation presented in Botma (2004) where a theory of melodic structure using elements as the units of which segments are composed and the notion of dependency is articulated. This approach allows a particular feature/element the possibility of appearing in different positions governed by different dominance relations. The advantage of this is that a varying range of contrasts may be captured while retaining a relatively small set of features that avoid over-generation of segment inventories. This perspective contrasts with the idea that the representation of segmental inventories must involve disparate feature specifications and representations for contrasting segments.

Two implications follow from the analysis developed here. Firstly, only those representations that do not function to characterise contrasts within the inventory of a language may be used to characterise derived environment effects. Secondly, in terms of learnability and cognitive processing, learners of a language must be able to not only cue into surface contrast but also into internal melodic structure that is cued by the presence versus absence of particular phonological processes. The first is predicted true by the Kinyamwezi case and the second remains to be tested although studies in second language phonology are suggestive of the knowledge of derived environments in phonological acquisition (see Eckman et al 2003).

References

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