
Tone in OT

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There have been various attempts to employ autosegmental representations in Optimality Theory, notably Yip (2002). However, there is no consensus as the best way to do this.

(Marlo, 2007, 23-25), in the introduction to his thesis describing tonal patterns in understudied African languages, puts it this way.

This dissertation is cast in rule-based derivational autosegmental phonology. This choice was made primarily on the basis of the theory's usefulness as a research tool, its flexibility to allow for whole-language description, and the accessibility of the theory to the widest possible readership. This dissertation therefore eschews more current theoretical approaches in Optimality Theory (Prince & Smolensky 1993/2004, McCarthy & Prince 1993a, b), as well as more recent non-autosegmental proposals such as Optimal Domains Theory (Cassimjee 1998, Cassimjee & Kisseberth 1998, Cole & Kisseberth 1994) and Span Theory (McCarthy 2004)—a decision also made in other relatively recent works on tone in Bantu languages that have the goal of understanding the many interacting factors influencing tone patterns across and within the complex tense-aspect system (Bickmore 2007, Manus 2003, Mutonyi 2000).

A number of tonal patterns described in this dissertation may make better sense in terms of constraint interaction and the alignment of tones to edges of the verb stem. However, there are several fundamental issues in the treatment of tone that are unresolved in the OT literature, limiting the theory's usefulness as a tool for the type of whole-language description attempted in the present study. For example, as Bickmore (2007) points out, there is no consensus in the OT literature on how to account for a tonal phenomenon as basic as H-tone spreading, which can be thought of in at least the following four ways: as the result of a *HL constraint, as the result of alignment of a H to an edge, as a kind of minimality effect whereby monosyllabic H domains must be avoided, or as the result of a constraint SPREAD, which simply requires spreading.

A second fundamental problem that would be encountered in casting the present analysis within Optimality Theory is the ubiquity of the opacity effects found in the tonal systems described here, which are notoriously difficult (and in many

cases impossible) to account for in classical Optimality Theory, owing to the theory's lack of intermediate levels of representation. There have been many different approaches to account for opacity effects in OT, including two-level constraints, sympathy, constraint conjunction, abstract domains, turbidity, targeted constraints, output-output correspondence, comparative markedness, strata, and candidate chains, the later two of which essentially re-introduce derivations as part of the phonological architecture. See Odden (2000) for a summary and critique of several of the early approaches, many of which are independently necessary to account for different types of opacity effects. The present work sidesteps the difficult problem of choosing from among these overlapping and competing approaches within OT by falling back on a rule-based framework that incorporates intermediate levels of representation—the source of opacity effects.

A third major problem in employing a more current theoretical approach, such as Optimal Domains Theory (or its reincarnation as Span Theory), within Optimality Theory is that while ODT is well designed to handle some aspects of tone patterns in Bantu languages, it has little to say about two tonal phenomena which are of central importance in Lumarachi and Lunyala: grammatical (or “melodic”) H tones and the predictable location of Hs. Therefore, if the present dissertation had attempted to account for even the most basic patterns in Lumarachi and Lunyala, it would have had to have proposed significant modifications to current theory or at the very least incorporated a significant amount of theoretical machinery that will likely be outdated in coming years. This would have significantly changed the focus of this work and likely detracted from the accessibility of the first and only materials on Lumarachi and Lunyala verbal tone.

This is not to say that the rule-based approach put forth here always leads to the most insightful or elucidating analysis, nor is it to say that the present work seeks to be “atheoretical.” However, given the challenges of getting an OT/ODT analysis off the ground and the goals of achieving a thorough empirical description of the dialects in question and maintaining accessibility to the largest possible readership, the decision was made to cast the analysis in a more traditional framework. It is the hope of the author that subsequent work will pursue the ramifications of the data and analyses presented in this paper for OT/ODT.

References

- Marlo, Michael. 2007. The verbal tonology of Lumarachi and Lunyala: two dialects of Luluyia. Doctoral dissertation, University of Michigan.
- Yip, Moira. 2002. *Tone*. Cambridge University Press.