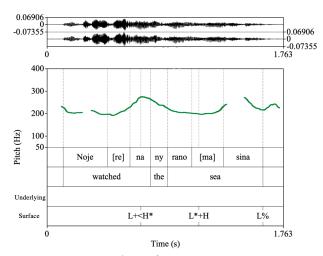
## Malagasy Intonation and Constituents Bearing Pitch Accents Jake Aziz

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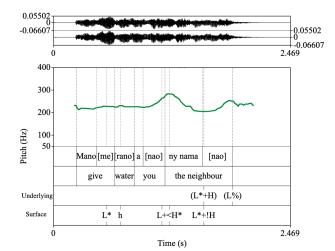
There is very little existing literature on the intonation of Malagasy (Austronesian). The research that does exist indicates that Malagasy intonation is heavily dependent on surface syntactic constituents. In particular, Barjam (n.d.) suggests that the predicate and subject are marked at the right edge with a L+H\* pitch accent. In the present study, I further explore the relationship between syntax and intonation in Malagasy by identifying which constituents bear pitch accents and describing other tonal events in Malagasy. I present a preliminary model of Malagasy intonation, based on twenty Malagasy simple declarative sentences that varied in their syntactic structures, produced by a native speaker of Malagasy currently living in Madagascar. Data were analysed and annotated using labels based on the Autosegmental-Metrical model of intonation (Pierrehumbert, 1980; Ladd, 2008).

I show that Malagasy predicates and subjects are marked with a pitch accent, realised on the final stressed syllable of the constituent. For predicates, this is typically realised as  $L+H^*$ , with or without a delayed peak. The subject pitch accent is commonly  $L^*+H$ . Furthermore, verbs, when not in the predicate-final position, sometimes also bear a pitch accent, in this case  $L^*$ . The model also states that Malagasy declaratives are marked with a L% boundary tone; however, this boundary tone is not realised if the final syllable is accented. Finally, I propose a "small" tone that appears on some object nouns. This tone, realised as a rise of about 15-20 Hz, appears on the initial syllable of object nouns, provided that syllable does not bear a pitch accent. Figures 1 and 2 show examples of Malagasy sentences featuring these types of tones.

The results of this study provide the most comprehensive look at Malagasy intonation under the AM model to date. This preliminary model offers a starting point for future research in Malagasy intonation, in particular with respect to the close relationship between prosody and syntax.



**Figure 1**: Intonation of *Nojerena ny ranomasina* 'The sea was watched', showing pitch accents on the predicate and subject, along with a L% boundary tone.



**Figure 2**: Intonation of *Manome rano anao ny namanao* 'The neighbour gives you water', which shows a L\* pitch accent on the verb, a small tone on the direct object, and a truncated boundary tone.

## References

Barjam, J. P. (n.d.). *The intonation of Malagasy declarative sentences*. Unpublished manuscript.

Ladd, D. R. (2008). Intonational phonology. Cambridge University Press.

Pierrehumbert, J. B. 1980. *The phonology and phonetics of English intonation* (Doctoral dissertation, Massachusetts Institute of Technology).