Abstract

Tone languages such as Mandarin Chinese (Ku, 1999) or the Bantu language Chichewa (Diermeier, 2003) display tonal patterns beyond the lexical level when some part of the utterance is in focus. Amelio (1992) describes the Gbe language Ewe to utilize morphosyntactic features to signal focus without making any reference to prosody. The question arises whether there are typological commonalities with regard to prosody across different types of tone languages when signaling focus. Möhl (1971) makes reference to ‘expressive prosodies’ in Ewe which serve to emphasize a word or phrase or on the main meaning. We tested for these ‘expressive prosodies’ by comparing the phonetic realization of the high-toned val + focus marker (FM) in subject focus condition and in ex-situ object focus utterances to see if the language also makes use of prosodic (durational or pitch) cues to highlight or structure information. While duration appears to mark phrasal boundaries after the focused constituents, FO measurements of controlled tonal patterns were inconsistent as of now (and thus are not discussed here).

We selected 6 tonal structures for further investigation and restricted our analysis to the following 3 conditions:

1. S V (out-of-the-blue) (36 utterances)
2. S + FM V (subject focus) (36 utterances)
3. O + FM S V (object ex-situ focus) (39 utterances)

Our (preliminary) results indicate that there are no pitch cues that aid in signaling focus or structuring information. Durational cues however appear to play a significant role in structuring the information.

Linguistic Facts of Ewe

Ewe is a Tono language spoken in Ghana & Togo

Procedure

Recordings: Recordings were made at 44 kHz in a sound proof room or DAT or hard disc.

Materials: The material was controlled for tonal co-occurrences as well as sonority for better tracking of the FO.

Analysis: Duration and pitch analyses were carried out in Praat.

Results

Duration Measurements

For each utterance, segment durations were calculated. For each identical condition, the mean and the standard error was computed and graphed. Note that the S is graphed in green, the V in blue and the O in grey. The focus marker on the S or O is plotted in red while the final onset of the utterance is graphed in yellow.

Interpretation

1. Final lengthening at right edge of utterance (prosodic phrase)?
2. Vowel onset elongated in context of preceding vowel?

Comparison S Focus and O Focus (ex-situ)

The durations were automatically calculated from the segmentation file. Mean durations with standard error bars were plotted.

Results

Linear Mixed Effects Models ANOVA on the duration of the focus marker in [S + FM] vs. (O + FM) utterances shows a significant effect (p < 0.05, F = 15.77) indicating that the focus marker in Ewe object is produced relatively longer than in the [S + FM] condition.

Theoretical Implications

There appears to be evidence for Möhl’s ‘expressive prosodies’ in the speech of this one speaker:

1. Can the focus have the perceptual effect of emphasis?
   • in (S + FM) vs. (O + FM) phrasing into two separate intermediate level phrases?
2. lengthening can have the perceptual effect of the restructuring of sentences
   • in (S + FM) vs. (O + FM) phrasing into two separate interontonal level phrases?

Questions

1. Why redundant marking via use of prosody when having a) a specific marker for focus and b) prosodic movement
2. Can the results be interpreted to mean that Subject focus is ex-situ, too?

Conclusions

1. There appears to be evidence for Möhl’s ‘expressive prosodies’ in the speech of this one speaker: lengthening has the effect of the percept of increased salience resulting in the interpretation of emphasis.

References


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