ADDITIONAL MATERIALS ON

A measurement from electroglottography: DECPA, and its application in prosody

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Additional materials:

1. Additional discussion on Naxi: local phenomena and global phenomena

Sections 3.1 and 3.2 of the paper illustrate local prominence-lending. When the context was varied, to elicit an "impatient" utterance of the same sentences, attitudinal intonation was found to take precedence over local intonative phenomena: the local phenomenon disappeared when the context was changed from "neutral attitude" to "strongly impatient attitude". For example:

(4) ŋəꜜ kʰɑꜜdyꜜ bɯꜛ məꜜ.

1st pers. sg.-Beijing-go-*affirmative final particle* "I am going to Beijing."

The context given was: "You have answered this question several times already; the addressee still misunderstands, or pretends not to understand; you answer once again, but for the last time". The tracings (figure 9) show that the local phenomenon is replaced by a global phenomenon of F_0-register raising over the utterance as a whole. The parameters calculated indicate (in accordance with auditory impression; see corresponding sound files) that there is no local intonative phenomenon taking place on the word "Beijing". The strongest intonative prominence is found at the end: despite its lexical Low tone, the final particle peaks well above the rest of the utterance in terms of F_0, and its DECPA value is even more salient: twice as high as other syllables. Acoustic intensity is also high (as its curve was very similar to the DECPA curve, it was not found necessary to plot it). This points to the fact that attitudinal intonation (in this case, "impatience") takes precedence over local intonative phenomena.

(Note that, in figure 9, three parameters are plotted on the same figure; DECPA is represented in negative values.)

2. Additional figures

The figures are in: figures1.zip. They represent the DECPA curves of Vietnamese tones, contrasting two conditions: *non-emphasized* (NE) vs. *under emphasis* (E). Each curve is averaged over 42 items. Figures 5a-b corresponds to speaker "2", figure 6a-b to speaker "3", 7a-b to speaker "4". Figures 5a-6a-7a show tone 8 under the two conditions: for speakers 2 and 3, there is a marked difference between NE and E, found towards the end. Figures 5b-6b-7b show tone 4. For speakers 2 and 3, there is, again, a difference between NE and E; it is found in the middle portion only. The standard deviation is very high in all cases.

The direction of the change under emphasis is the opposite in speaker 4 and in speakers 2-3: for speaker 4, DECPA is lower under emphasis (as is syllable length); see submitted paper #1 for a short discussion.

3. Sound files

The recordings are in: sounds1.zip. This archive contains recordings of the utterances discussed in the paper. The name of the file is the number that the utterance has in the paper (1, 2, 3; and 4, discussed in the present supplement) followed by A for the audio file, and by E for the electroglottographic recording.

4. Some more references

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