Abstract: Analysis of Mandarin exclamations: A Comparison of the Pronunciation of "en" in Regions

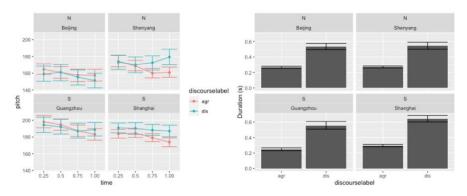
This presentation discusses quantitative research on a Mandarin phonetic difference resulting in a pragmatic meaning change. The topic focuses on a suprasegmental change (pitch and particle duration) with the meaning of agreement and disagreement associated with the Mandarin discourse particle *en*. From Tang (2016) and Oralova (2016), the *en* particle is pronounced with a short duration and a falling tone when it is used with the agreement meaning. In contrast, it is pronounced with the long duration (longer than 350ms) and a raising tone when it is with the disagreement meaning. However, informal observation suggests that northern people in China tend to use the duration difference only, while people from the south rely on the pitch contrast. Thus, there is a regional difference in the pronunciation of *en* particle. This talk will present a study on the representative cities of each region: Guangzhou and Shanghai are for the south; Beijing and Shenyang are for the north.

Sociolinguistic interviews were conducted to collect data from 40 Mandarin speakers. In terms of the interviewees, there were four groups in regards to the cities. Five of the speakers in each group were females and the other half of them were males. The duration, maximum pitch, mean pitch and the tone shape for all tokens of *en* were measured and analyzed by using Praat.

The results of this study suggest that the pronunciation difference might not be due to the regional difference (north vs. south), whereas the difference among cities is more obvious. In terms of the particle duration, the results of speakers from four cities are statistically significant; thus, they rely on the duration contrast. In terms of the tone shape¹, speakers from Shanghai and Shenyang used the level tone to indicate the disagreement; for the meaning of agreement, they used the falling tone. On the other hand, speakers from Guangzhou and Beijing only used the duration contrast. They produced the short particle to indicate the agreement, while they only lengthened the particle to indicate the disagreement. Their tone shapes were unchanged for the two meanings. Figures 1 and 2 show the result of the tone shape and duration measurement in four cities². This research is important to the study of the relationship between the discourse particle and phonetic variation in Mandarin. From Oralova (2016), the resources of the Mandarin discourse particle study are limited. In addition to the regional dialects, this research also contributes the study of Mandarin dialects in China.

¹ The tone shape with pitch normalization (semitones) will be presented as the result.

² The difference of gender in regions and cities will also be presented.



Figures 1 and 2: Results of four cities on the tone shape and duration. References

Oralova, G. (2016). *Minimal Response Token en in Mandarin Conversation*. MA Thesis on University of Alberta. 1-111.

Tang, H. (2016). 谈汉语口语中"嗯"的多义性. Journal of Language and Literature, 69-71.

[Talking about the diverse meaning of "en" in spoken Mandarin]