Category: (a) oral presentation only Yasunori TAKAHASHI (Tokyo University of Foreign Studies, JSPS) Title:

Effects of Morpho-syntactic and Phonetic Factors on Two Tone Sandhi in Shanghai Chinese Abstract:

This study examines how morpho-syntactic and phonetic factors, in addition to phonological one, affect the realization of two tone sandhi in Shanghai Chinese.

Shanghai Chinese has two types of tone sandhi: 1) "Broad Tone Sandhi" (BTS), in which the overall tonal shapes in polysyllabic words are determined by the initial tones, and 2) "Narrow Tone Sandhi" (NTS), in which contour tones are changed into level tones in constructions such as verb-object, subject-verb and verb-complement.

Most previous studies that examine the relationship between BTS and NTS have regarded them as phonological. For example, Chen (2000) argues that Shanghai Chinese distinguishes three degrees of prominence (or stress) and that the difference between BTS and NTS can be attributed to the degree of prominence.

This study shows two observations which reveal that non-phonological factors also influence the realization of two tone sandhi in Shanghai Chinese.

1. Morpho-syntactic structure determines the distribution of variants in quadrisyllabic BTS.

Quadrisyllabic words whose initial tones are "Yangru" have two types of sandhi variants which have been thought of as free variation. I demonstrate that morpho-syntactic structure strongly influences the distribution of these variants; compounds consisting of two disyllabic words can take both variants, while other structures only have a particular one. Chen's metrical analysis cannot explain this distributional pattern since there is no difference between these variants in foot structure.

2. <u>NTS is a phonetic pitch reduction rather than a phonological tonal leveling.</u>

Some studies focusing on NTS (e.g. Shi 1995) argue that NTS is a phonetic tonal change rather than a phonological leveling since the tonal shapes of NTS syllables seem to be affected by speech rate. However, they do not provide objective data supporting this view. I conducted an acoustic experiment investigating how tones are realized when NTS happens at different speech rates. The results show that although the pitch ranges reduced as the speech rate became fast, the contour shapes (i.e. rising and falling shapes) were preserved at all speech rates. These results support the phonetic interpretation of NTS.

References:

- Chen, Matthew. 2000. *Tone Sandhi: Pattern Across Chinese Dialects*. Cambridge: Cambridge University Press.
- Shi, Rujie. 1995. Wuyu liandubiandiao de liang ge wenti. In Zee, Eric (ed.), *Wuyu Yanjiu*, 363-381. New Asia College, The Chinese University of Hong Kong.