World knowledge and competition in the information-prosody interface

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There are a number of models of Japanese intonation, which while emphasizing different points at the level of finer detail, converge on the larger issues – J-TOBI (PB88), the Fujisaki model (F81), the Metrical model (K88). The present paper focuses on the minor details that diverge between the models cited above, as well as other relevant studies (V00, Ko08) and by analyzing the information status of words, attempts to reconcile some issues from a semantic-pragmatic perspective.

The paradigm adopted here is that of activation of semantic content (Ch94). Ideas are stored in long-term memory in an inactivated state, and in natural speech their activation state changes along a continuum. Related ideas, a part of world knowledge, receive a certain degree of activation even though they are not explicitly mentioned in the discourse. The notion of competition is introduced – similar to the traditional view of a contrastive semantic dichotomy but expanded to include semantic *and* grammatical competition. Competition and activation status are viewed as partially orthogonal dimensions of information status.

The above model is adopted in the analysis of spontaneous speech, a limited discourse part of CSJ. The IPO approach to intonation is applied in measuring pitch range as a marker of intonational prominence (HCC90). In the process, the concept of declination is reexamined, and the implications for the phonological theory of intonation are addressed. Multiple comparisons are conducted (t test, Bonferroni adjustment). The analysis indicates that the concepts of world knowledge and competition are a relevant part of the information – prosody interface, allowing the observation of intonational prominence in natural speech. An issue pertaining to the universality of the relation between information status and prominence is addressed. Finally, a phenomenon unique to spontaneous speech – the contours of emotionally charged emphasis, is discussed.

Ch94 Chafe, W. 1994. *Discourse, Consciousness, and Time. The Flow and Displacement of Conscious Experience in Speaking and Writing*. The University of Chicago Press.

F81 Fujisaki, H. 1981. Dynamic characteristics of voice fundamental frequency in speech and singing. Acoustical analysis and physiological interpretations. *Speech, Music and Hearing Quarterly Progress and Status Report*, 22 (1), 1-20.

HCC90 Hart, J., Collier, R. & Cohen, A. 1990. *A perceptual study of intonation: an experimental-phonetic approach to speech melody*. Cambridge: Cambridge University Press.

Ko08 Kori, S. 2008. Toukyou hougen ni okeru akusento no jitugendo to imiteki gentei. *Onsei kenkyu*, Vol 12, 1, pp34-53.

K88 Kubozono, H. 1988. The Organization of Japanese Prosody. Ph.D. dissertation,

Edinburgh University.
PB88 Pierrerhumbert, J. & Beckman, M. 1988. *Japanese Tone Structure, Linguistic Inquiry Monograph* 15. Cambridge, MA: MIT Press.
V00 Venditti, J. 2000. Discourse structure and attentional salience effects on Japanese intonation. Ph.D. dissertation, Ohio State University.