## The effects of lexical focus, segmental focus and pitch accent in Japanese.

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Presentation preference: Paper

De Jong & Zawaydeh (2002) and de Jong (in press) examine the effects of lexical focus, segmental focus, and stress on vowel duration cues to vowel identity and consonant voicing in Arabic and English. Both in Arabic and English, stress and focus affect the duration cues to the quantity of the vowel; however they only affect vowel duration as a cue to voicing in English. Also, most focus effects in English occur on stressed vowels, while focus effects also happen on unstressed vowels in Arabic. De Jong (in press) concludes stress exists in Arabic and English, and stress is clearly analogous to focus, even though stress in English and stress in Arabic are not identical.

Japanese is categorized as a non-stress pitch-accent language, different from stress accent languages such as Arabic and English. Pitch accent in Japanese has a similar function to stress accent in English. Since in both English and Japanese, stress or pitch accent is lexically determined, they have a distinctive function. However, since the effects of stress are restricted to single syllables in English, we expect focus effects should be distributed over accented and unaccented material alike in Japanese. Also, this study examines how speakers disambiguate accent location and the presence contrasts of pitch accent patterns in conditions where speakers focus on targets with different accent locations.

The procedures employed in the current study follow de Jong & Zawaydeh (2002) and de Jong (in press). Target words have two moras with the structure of (C1) V1 C2 V2, and the choice of words is based on the consonant environment.

The target words contrast for accent between 1st mora accented, 2nd mora accented, and unaccented. Words appear 1) in isolation, 2) after the focused element in unaccented positions, 3) with lexical focus, and 4) with phonologically-specified focus. For lexical focus, speakers are given a sentence with the word contrasting another word with semantic similarity. For phonologically-specified focus, the word is contrasted with a word minimally contrasting in accent presence/location, or contrasting in the vowel. The current study investigates two central questions. First, does lexical focus affect vowel quantity and quality in Japanese in a way similar to that observed for stress in previous studies, and second, is the effect on pitch accent similar to the effect on stress found in Arabic and English? Preliminary analyses of the effect on vowel duration will be presented at the workshop.

## Reference

de Jong, K. J. (in press). Stress, lexical focus, and segmental focus in English: Pattern of variation in vowel duration. *Journal of Phonetics*.

de Jong, K. J. and Zawaydeh, B. A. (2002). Comparing stress, lexical focus, and segmental focus: patterns of variation in Arabic and vowel duration. *Journal of Phonetics*, 30, 53-75.