

Anne Zimmer <sup>a</sup>, Anke Sennema <sup>b</sup>

<sup>a</sup>SFB 632 Informationsstruktur, <sup>b</sup> Institut für Germanistik

Universität Potsdam

### **Access to prosodic information: Does linguistic background matter?**

Prosodic prominence is known to direct a listener's attention to words in focus, so they are processed faster, as has been shown for English (Cutler 1975, 1976, Cutler & Foss 1977, Cutler et al. 1997). To illustrate this, consider the following:

Given the task to press a computer key when hearing the sound 's', the word 'saw' will yield shorter reaction times in example 1a than in example 1b, since it is in nuclear position in 1a, but not in 1b, where it is pre-nuclear (as indicated by bold capitals, 1b is an example from the experimental stimuli).

1a) We all **SAW** her little daughter on t.v.

1b) We all saw her little daughter on **T.V.**

In addition to the facilitating effect of nuclear accentuation, we hypothesized that post-focal deaccentuation, as in 1c, should lead to an obstructive effect for native listeners, rendering detection of the sound 's' more difficult.

1c) We **ALL** saw her little daughter on t.v.

However, not all languages use prosodic means to mark focus. For example, South African Bantu languages, which use tone at lexical level, have been shown to use post-lexical intonation only for the demarcation of prosodic phrases (Downing 2010, Zerbian 2006, 2007). Hence, the question arises whether speakers of South African Bantu languages show the same effect for focus intonation in their perceptual processing of English.

In order to examine this issue, a perception experiment was conducted where the focus condition of English target words was manipulated. In a phoneme detection task, participants listened to 33 target sentences with the verb being either in prenuclear, nuclear, or postnuclear position (plus 26 distractors with focus on the initial or final noun). The stimuli were manipulated acoustically in that phonetic cues to prosodic prominence other than pitch were reduced.

Data were collected from 64 students at the University of the Witwatersrand in Johannesburg. With regard to their language background, 20 of them were rated as native speakers of General South African English, 25 as proficient speakers of General South African English with a Bantu language as L1, and 19 as advanced speakers of South African English with a Bantu language as L1 (based on the grammar part of the Oxford English Placement Test). The latter group can also be described as consisting of speakers of 'Black South African English' (as determined by auditory judgment), a contact language variety.

Analyses were conducted on the measures of accuracy and reaction times. Reaction time data reveal a processing advantage for nuclear accentuation in contrast to prenuclear accentuation in all groups. Postnuclear deaccentuation cannot be shown to have an effect on reaction times in contrast to prenuclear accentuation in any of the groups. For the native speaker group, however, we find that postnuclear deaccentuation has a negative effect on accuracy, which cannot be observed for either of the L2 groups.

## References

- Cutler, A. (1976). Phoneme-monitoring reaction time as a function of preceding intonation contour. *Perception & Psychophysics*, 20, 55-60.
- Cutler, A. (1975). Sentence stress and sentence comprehension. PhD Thesis, University of Texas, Austin.
- Cutler, A., Dahan, D., & Van Donselaar, W. (1997). Prosody in the comprehension of spoken language: A literature review. *Language and Speech*, 40, 141-201
- Cutler, A., & Foss, D. (1977). On the role of sentence stress in sentence processing. *Language and Speech*, 20, 1-10
- Downing, L.J. (2010). Bantu Languages and the Typology of Focus Prosody, Linguistics Colloquium on 9<sup>th</sup> Nov. 2010, Seminar für Afrikawissenschaft, HU.
- Zerbian, S. (2007). Phonological Phrasing in Northern Sotho. *The Linguistic Review* 24, 233-262.
- Zerbian, S. (2006). Expression of Information Structure in the Bantu language Northern Sotho. Doctoral thesis, Humboldt-University Berlin. Published as ZASPIL 45.