
The processing of German pitch accents by Italian learners of German

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Prosody and information structure (IS) are differently integrated in plastic languages (e.g. German) and non-plastic languages (e.g. Italian). Recording the EEG of native (L1) and second language (L2) speakers of German, we studied the online perception of three pitch contours aligned to final NPs corresponding to accessible information in a whole-part relationship in sentence pairs as in (1) (H+L*-congruent, L+H*-incongruent, deaccentuation–incongruent; cf. Baumann & Grice 2006).

- (1) Sabine findet einen alten Schuh. Dann repariert sie die Sohle.
'Sabine finds an old shoe. Then she repairs the sole.'

The L1 group (N=24) shows a three-way-modulation of the N400 with a strong effect for deaccentuation, replicating the results in Schumacher & Baumann (2010) and a Late Positivity associated with L+H*. The L2 group (N=25) shows a binary modulation of the N400 component, indicating the absence of a mismatch from deaccentuation, while late effects are similar to the results for L1 speakers.

The overall pattern for all L2 participants suggests that they are able to perceptually detect a difference between the expected pitch accent and the other ones (early positivity and L1-like late P600). However, it also shows that deaccentuation, unlike for L1, is not yet integrated in the processes that deal with information status and affect the N400. Thus, the semantic integration of prosody and IS appears to be guided by the presence or absence of plasticity in L1.

References: • Baumann, S., Grice, M. (2006). The intonation of accessibility, *J. Pragmatics* 38(10), 1636-1657. • Schumacher, P.B., Baumann, S. (2010): Pitch accent type affects the N400 during referential processing, *NeuroReport*, 21(9), 618-622.