“Great job!” – Phonetic characteristics of irony in speech

In most ironic utterances, the lexical content mismatches with the communicative intent of the speaker, which may, for example, express a disapproving or mocking attitude. This sarcastic form of irony is typically encoded by a lower overall fundamental frequency (f0) [2, 5, 6], a lower intensity [6], and a longer duration [1, 2, 5, 6], compared to sincere speech. Comparative studies furthermore revealed that the acoustic marking of irony differs across languages (e.g., [3]). We hence investigated whether the prosodic marking of irony also differs across regional accents (of German), focusing on Moselle Franconian (Trier region) and Low Alemannic (Freiburg region). We analyzed 16 utterances, produced in a sincere and sarcastic mode, by 20 speakers from Trier and Freiburg each (1280 utterances in total).

Results show that ironically intended utterances in both speaker groups were overall lower in f0, less loud, and longer than those intended to be sincere, corroborating previous research [1, 2, 5, 6]. These cues were used in parallel, rather than being traded against each other. The intonational analysis revealed that, irrespective of mode, differences across regions occurred in the use of pitch accent types (more H* in the Trier region and more L*+H in the Freiburg region overall, cf. [4]), and in the phonetic implementation of the pitch accents (tonal alignment in Freiburg tended to be later). To mark irony, speakers from both regions used accent position as a cue by placing an additional prominence in the prenuclear region (e.g., on “das” in Das klappt ja super! ‘That works PRT well!’). In nuclear position, the pitch range of the accentual movement (e.g., on super) was smaller in ironic as compared to sincere utterances (phonologically encoded by H* in ironic vs. L+H* in sincere utterances). Another cue to mark irony, especially in the Freiburg group, was the insertion of a phrase break, e.g., Das sieht ja | umwerfend aus! ‘That looks | stunning!’.

With respect to voice quality, non-modal parts, particularly glottalized, were longer in ironic than in sincere utterances. Laughter was overall very infrequent but specific to ironic utterances. The present study thus provides initial insights into the intricate interplay between regionally specified intonational patterns and the phonetic encoding of ironic attitude. In the talk, implications for irony decoding (recognition and interpretation), in particular from a cross-regional point of view, will be discussed.

References: