Phonetics Colloquium at UdS

on Wednesday, 10 June 2026, 10:00 **(unusual time)**

Ekaterina Shepel (UdS)

Creaky voice in German: first findings on the inter-dialect variability

Creaky voice has been reported to occur in Northern Standard German as glottalization at the beginning of syllable-initial vowels in place of glottal stops (Kohler, 2001). Penney et al (2026) showed that creaky voice occurs not only in Northern but various, though not carefully defined, regional German standard varieties as well as on the phrasal in addition to the word level. This observation was most pronounced in younger female speakers and was thus linked to potential borrowing of intonation patterns from American English varieties.

The aim of this study is to explore this further for Southern German varieties. We predicted creaky voice to occur differently as a function of region (Munich/Bavaria vs. Zurich), register (standard vs. dialect), speech rate (normal vs. fast), speaker age and sex.

Apparent time data recorded for a different project were analysed: German Standard German spoken in Munich, the Western Central Bavarian dialect spoken in rural parts of Upper Bavaria (cf. Jochim & Kleber, 2024); Swiss Standard German spoken in Zurich and the respective Zurich dialect obtained from the same speakers (cf. Zebe, 2023); 65 speakers in total. Around 450 phrases per speaker with varying normal and fast speech rates were analyzed. Within this data set, phones produced with creaky voice were detected automatically using the antimode method (Dallaston & Docherty, 2019). The effect of age, sex, and rate on the proportion of creak per speaker was analysed using mixed effects regression.

The preliminary results show that the occurrence of creak in Southern German varieties is primarily conditioned by region (Swiss > German) and less so by register (standard vs. dialect), gender, and age. While the observation of GSG speakers creaking more than WCB speakers is in line with an explanation that considers creak in English varieties as a potential source for increasing creaky voice in Standard German (Penney et al, 2026), our observations of more creak in dialect vs. standard realizations within the same Swiss speakers challenges such interpretation. Further phonetic constraints determining creak in German varieties (e.g. boundary marker at the word and phrase level) thus need to be considered and will be investigated in this ongoing project.

References

Dallaston, K., & Docherty, G. 2019. Estimating the prevalence of creaky voice: A fundamental frequency-based approach. In S. Calhoun, P. Escudero, M. Tabain, and P. Warren (eds.), Proceedings of the 19th ICPhS. Australasian Speech Science and Technology Association Inc, 581.1–5.

Drugman, T., Kane, J., & Gobl, C. 2014. Data-driven detection and analysis of the patterns of creaky voice. Comput. Speech Lang. 28(5), 1233–1253.

Jochim, M., & Kleber, F. 2024. Fast-speech-induced hypoarticulation does not considerably affect the diachronic reversal of complementary length in Central Bavarian. Language and Speech, 67(2), 463-497.

Kohler, K. J. (2001). Plosive-related glottalization phenomena in read and spontaneous speech. A stød in German. To Honour Eli Fischer-Jørgensen, 174-211.

Penney, J., Weirich, M., & Jannedy, S. 2026. Creaky voice across apparent time in German: Insights from the Plapper corpus. International Conference on Phonetic Variation. Granada, Spain, 142–144.

Talkin, D. 2015. REAPER: Robust epoch and pitch EstimatoR, https://github.com/google/REAPER (Retrieved April 2026).

White, H., Penney, J., Gibson, A., Szakay, A., & Cox, F. 2022. Evaluating automatic creaky voice detection methods. The Journal of the Acoustical Society of America, 152(3), 1476-1486.

Zebe, F. 2023. Vowel and consonant quantity in two Swiss German dialects and their corresponding varieties of Standard German: effects of region, age, and tempo. Phonetica, 80(3-4), 185-223.