

Title (EN): **Entrainment profiles: Comparison by gender, role, and feature set**

Title (SK): **Vplyv pohlavia, komunikatívnej úlohy a prozodických charakteristík na rečové prispôsobovanie sa**

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Annotation: Speech (dis-)entrainment is an integral part of interpersonal communication and its deeper understanding is useful in human-machine communication. In our long-term research, we test the adaptation of speech synthesizers to the prosodic characteristics of the user. In publication [1] we proposed novel methods of characterizing intonation and rhythmic properties of speech in testing entrainment a corpus of Slovak task-oriented dialogues. The most important finding is that the gender of the speakers and their role in the communicative game (whether they were giving or receiving instructions) significantly influenced the degree of (dis-)entrainment; and this was done differently for various groups of prosodic speech characteristics and different forms of (dis-)entrainment (synchronicity or convergence). In implementing speech (dis-)entrainment to human-machine communication [2, 3, 4], we also observed the tendency of people to prefer the speech of the machine that does not entrain to the speaker.

Main scientometric outputs:

1. Rechel, Uwe D. - Beňuš, Štefan - Mády, Katalin. Entrainment profiles: comparison by gender, role, and feature set. In *Speech Communication*, 2018, vol. 100, p. 46-57. (1.585 - IF2017). ISSN 0167-6393. Typ: ADCA
2. Beňuš, Š., Trnka, M, Kuric, E., Marták, L., Gravano, A., Hirschberg, J., Levitan, R. (2018). Prosodic entrainment and trust in human-computer interaction. In: *Proceedings of 9th International Conference on Speech Prosody*, pp. 220-224.
3. Gauder, L., Reartes, M., Gálvez, R., Beňuš, Š., Gravano, A., (2018). Testing the Effects of Acoustic/Prosodic Entrainment on User Behavior at the Dialog-Act Level. In: *Proceedings of 9th International Conference on Speech Prosody*, pp. 374-378.
4. Beňuš, Š., Patacchiola, M., Trnka, M., Zanatto, D., Sabo, R., Cangelosi, A. (2018). Do people trust robots whose prosody synchronizes with the user? In Šašinka, Č., Strnadová, A., Šmideková, Z., Juřík, V. (eds.). *Kognice a umělý nívot, sborník příspěvků [Cognition and Artificial Intelligence, conference proceedings]*, pp. 9-10, Brno: Flow.