Automatic classification of lexical stress errors for German CAPT

Anjana Vakil and Jürgen Trouvain

UNIVERSITÄT DES SAARLANDES

Department of Computational Linguistics and Phonetics
Saarland University, Saarbrücken, Germany

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Lexical stress in German CAPT

Definition

Prosodic accentuation/prominence of syllable(s) in a word[1]

In German:

- Variable placement, contrastive function[1]

um·FAHR·en	vs.	UM·fahr·en
to drive around		*to run over*

- Reflected by duration, fundamental frequency (F0) and intensity[2]

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[1] A. Cutler. "Lexical Stress". In: *The Handbook of Speech Perception*. Ed. by D. B. Pisoni and R. E. Remez. 2005, pp. 264–289.

[2] G. Dogil and B. Williams. "The phonetic manifestation of word stress". In: *Word Prosodic Systems in the Languages of Europe*. Ed. by H. van der Hulst. Walter de Gruyter, 1999. Chap. 5, pp. 273–334.

Lexical stress in German

- Impacts intelligibility of non-native (L2) German speech[1]
- Challenge for learners with other native languages (L1s), e.g. French[2]
- Huge potential for individualized instruction via Computer-Assisted Pronunciation Training (CAPT)

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[1]U. Hirschfeld. *Untersuchungen zur phonetischen Verständlichkeit Deutschlernender*. Vol. 57. Forum Phoneticum. 1994.

[2]M.-C. Michaux and J. Caspers. "The production of Dutch word stress by Francophone learners". In: *Proc. of the Prosody-Discourse Interface Conference (IDP)*. 2013, pp. 89–94.