Automatic diagnosis and feedback for lexical stress errors in non-native speech: Towards a CAPT system for French learners of German

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Lexical stress



Some syllable(s) in a word more accentuated/prominent¹

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

- German: variable stress placement, contrastive stress¹
- ► French: no word-level stress, final syllable lengthening²

Goal: Computer-Assisted Pronunciation Training (CAPT) for lexical stress errors for French learners of German

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

²M.-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.

Outline



Motivation

Lexical stress errors by French learners of German

Annotation of a learner speech corpus Inter-annotator agreement Frequency of errors

Error diagnosis

Word prosody analysis Diagnosis by comparison Diagnosis by classification

Feedback

Implicit

Explicit

Self-assessment

The de-stress CAPT tool

Motivation



▶ 3 criteria



































