WIENER SPRACHGESELLSCHAFT

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Die Wiener Sprachgesellschaft lädt ein zu einem Vortrag

von

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## **Cognitive Phonetics:**

## **A Theory of Phonetic Implementation**

(Abstract umseitig)

Zeit: Dienstag, 14. Dezember 2021, 18 Uhr 30

Ort: Moodle-Raum der Wiener Sprachgesellschaft

https://moodle.univie.ac.at/course/view.php?id=188526

S. Procházka m. p. M. Pöchtrager m. p. L. Grestenberger m. p.

## **Cognitive Phonetics: A Theory of Phonetic Implementation**

Veno Volenec (Concordia University)

The talk discusses Cognitive Phonetics (CP), a neurolinguistic theory of phonetic implementation that is assumed to take place at the phonology–phonetics interface. Built on the foundation of substance-free generative phonology, CP proposes that the outputs of phonological grammar, surface phonological representations encoded in terms of features, are transduced (converted) into neuromuscular schemas that are legible to the primary motor cortex, which executes articulatory movements. CP's proposed transduction is carried out via two operations: (1) the paradigmatic transduction algorithm (PTA) assigns motor programs to each feature, taking into account the specification of all features from every individual segment; (2) the syntagmatic transduction algorithm (STA) coordinates those motor programs in real time, taking into account the specification of features from adjacent segments. The main empirical consequence of CP's transduction algorithms is their ability to elegantly account for both *intra*-segmental and *inter*-segmental coarticulation, as this talk shows on various examples. The talk also explores the neurobiological correlates that underlie phonetic implementation in CP, emphasizing the important roles of the insula, the basal ganglia and the cerebellum in speech production.