

Title:

Crosstalk of codes: phonological and orthographic contributions to speech production

Abstract:

Speech production requires the activation of phonological codes. Phonological codes are converted into phonetic codes, and further into articulatory-motor commands to orchestrate the movements of the jaw, the lips, and the tongue involved in speaking. Reading aloud requires the conversion of written codes (spelling, orthography) into phonological codes, while writing-to-dictation includes the conversion of phonological codes into orthographic ones. However, one theoretically important question for the cognitive architecture of the language system is in how far these representations are independent of each other.

In this talk, I will introduce a widely accepted model of speech production and demonstrate the role of phonological segments during speaking. Then I will present several studies from different labs, including our own, that show evidence of orthographic priming, even in language production situations that do not involve written representations of language and from languages that lack a one-to-one mapping between orthographic units (i.e., graphemes, letters) and phonological units (i.e., phonemes, sounds). The implications of these findings for models of speech production will be discussed.