Neurocognitive and Language Processing Underpinnings of Bi- and Multilingualism

Herein, I will present diversified data from my two major research fields of interest: neurocognitive brain adaptations of bilingualism and multilingual language acquisition and processing.

In the first part of my talk, I will discuss bilingual effects on the brain. Past research has shown that bilingualism, at least under specific conditions, can result in a more fine-tuned executive control system and in structural, functional and chemical brain reshapings. I will highlight findings from behavioral, resting state electroencephalography (rs-EEG) and time-frequency representations (TFRs) that together hint towards the idea that individual differences in bi-/ and multilingual language experiences are crucial to better understand/classify mind/brain effects.

In the second part, I will present two datasets looking at third language (L3) acquisition. Specifically, we employed for the first time neurophysiological (EEG/ERPs) correlates (in addition to behavioral performance) to disentangle between competing theoretical models of multilingual language acquisition. I will argue that extending the L3/Ln literature by examining neuronal correlates (ERPs: N400 and P600) in an L3/Ln acquisition environment with adult early bilinguals can reveal unprecedent insights beyond behavioral data for L3 acquisition processes.

I will conclude the talk by quickly summarizing the key findings of my PhD program and tie together the two (at least at first sight) different research fields within my dissertation.