



SFB Guest Lecture

Thursday, 17 February 2022, 15.15 pm
Online via ZOOM (see below)

Invited by the projects B01 and C04

M. Florencia Assaneo (Head of the Lab de Percepción y Producción de Habla at the UNAM Campus Juriquilla in México) will give a talk on

Neural and cognitive correlates of the speech auditory-motor synchronization

Abstract:

The interaction between perception and production has been widely studied in the field of cognitive neurosciences, with speech being a case of particular interest. In this direction, it has been demonstrated - by more than one research team - that producing speech modulates the activity of brain areas related to speech perception and vice versa - passive listening to speech activates frontal areas responsible of production. Despite the fact that the speech acoustic signal presents temporal regularities - and that these have been demonstrated crucial to achieve intelligibility - the study of the interaction of the rhythms that characterize the systems of production and perception of speech has been relegated. During this talk, I will focus precisely on this aspect. First, I will introduce a deceptively simple behavioral test capable of assessing the individuals' degree of auditory-motor synchronization of speech. Secondly, I will show which structural and functional brain features are predicted by the test outcome. And finally, I will examine how a high -or low- level of auditory-motor synchronization affects different cognitive abilities.

Everyone is cordially invited.

ZOOM:

<https://uni-potsdam.zoom.us/j/63492172618>

Meeting-ID:634 9217 2618

Kenncode: 42177311

More information about M. Florencia Assaneo:

We are very happy that Florencia Assaneo accepted the invitation of B01 and C04 to give a talk on "Neural and cognitive correlates of the speech auditory-motor synchronization". Florencia has a PhD in physics, did her postdoc in David Poeppels lab in New York and is now the head of the Lab de Percepción y Producción de Habla at the UNAM Campus Juriquilla in México

Websites:

<https://en.hablab.mx/>

<https://scholar.google.com/citations?user=IU9C2k4AAAAJ&hl=fr>

<https://twitter.com/florassaneo>

Key Publications:

Spontaneous synchronization to speech reveals neural mechanisms facilitating language learning, Nature Neuroscience, 2019, DOI: <https://www.doi.org/10.1038/s41593-019-0353-z>

The coupling between auditory and motor cortices is rate-restricted: Evidence for an intrinsic speech-motor rhythm, Science Advances 2018, DOI: <https://www.doi.org/10.1126/sciadv.aao3842>

Speech rhythms and their neural foundations, Nature reviews Neuroscience, 2020, DOI: <https://www.doi.org/10.1038/s41583-020-0304-4>

Speaking rhythmically can shape hearing, Nature human behaviour, 2020, DOI: <https://www.doi.org/10.1038/s41562-020-00962-0>