



Máster Universitario en
Neurociencia Cognitiva
y del Comportamiento

Seminario "How Rhythm and Timing Structure Experience"

14/03/2022

How Rhythm and Timing Structure Experience:
Auditory Perception,
Music and Social Interaction

Dr. Laurel J Trainor, McMaster University

Date and time: March 21st at 12:00

Place: Aula Magna



Abstract: Rhythmic stimuli are powerful because their regularity enables us to predict when important events will happen and, as a result, to attend to those points in time in order to process these important events optimally. Rhythms are ubiquitous in biological systems, from motor movements for locomotion to communication signals such as speech and music. I will present evidence that the human auditory system uses the motor system to accomplish rhythmic timing, and that auditory-motor interactions for timing are present very early in development. Further, I will present evidence that fluctuations in the power of brain oscillations measured with EEG in the beta frequency (~ 20 Hz) entrain to external auditory rhythms and are a neural signature of the prediction of upcoming sounds. Finally, I will discuss the social implications of coordinated movements in human interactions from musical ensembles to pro-social behaviour in infants.