

Press release

A new PhD project from Aarhus University investigates how musicians synchronize. The project was carried out by Ole Adrian Heggli, who is defending his dissertation on the 6th of June, 2019.

Interacting with other people often leads to what we call interpersonal synchronization, wherein our movements become synchronized. In musical performance this type of synchronization is crucial, and musicians need to adjust and coordinate their individual actions with those of others within milliseconds. A particularly interesting aspect of such interactions is the emergence of different synchronization strategies.

In this research project we discovered a new synchronization strategy, *leading-leading* (study 1). Furthermore, we found that a mathematical model consisting of four coupled oscillators was able to successfully reproduce the *leading-leading* strategy, as well as the other two well-known synchronization strategies of *mutual adaptation* and *leading-following* (study 2). Finally, we show that synchronization strategies may be linked to a temporoparietal network in the brain. This network consisted of regions associated with motor and auditory processes, and the temporoparietal junction which is an area linked to social processing in the brain (study 3).

The defence is public and takes place on 6/6 2019 at 14:00 in Lille Juridisk Auditorium (1342 – 455). The title of the project is Strategies for interpersonal synchronization in musicians: Behaviour, modelling, and neuroimaging.

For more information, please contact PhD student Ole Adrian Heggli, email: ole.heggli@clin.au.dk.

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