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# Using fMRI-hyperscanning to study social interaction

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## Abstract

We developed a hyperscanning environment using two 3T MRI scanners which are functionally connected and time-synchronized, enabling online interaction (cooperation/competition) between dyads of participants while they are being scanned simultaneously. Among others, we use a joint attention task in which a target stimulus is presented to one participant only, and cooperation between both participants (engagement in joint attention) is required to complete the task successfully. The presentation gives an overview of technical characteristics of the hyperscanning set up and method implementation. Data analysis includes conventional statistic parametric mapping, but considers time lagged connections to detect maximally covarying systems in the simultaneously acquired datasets. Results from the ongoing data analysis will be presented. Finally, we will discuss the usefulness of fMRI-hyperscanning in clinical social neuroscience.

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