



Two Sides of the Same Alpha: a MEG study

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We investigated the role of alpha oscillations during sound anticipation of a sound. Using MEG, we could non-invasively achieve a fine-grained resolution in the time, frequency and spatial domains, in human healthy participants.

We demonstrate, during anticipation of a visually-cued auditory target, a decrease in alpha power around 9Hz in the auditory cortices, simultaneous to an increase around 13 Hz in the visual regions that correlated with behavioral performances.

These findings provide new insight into the role of the peak-frequency in the alpha band by showing that anticipatory attention is a dynamic process supported by a balance between facilitatory and suppressive mechanisms, mediated in different low and high sub-bands of the alpha rhythm, respectively.

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