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Introduction

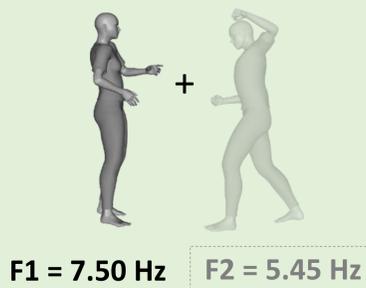
People interacting **face-to-face** are omnipresent in the everyday life scenery.

Do we see them as one visual object?

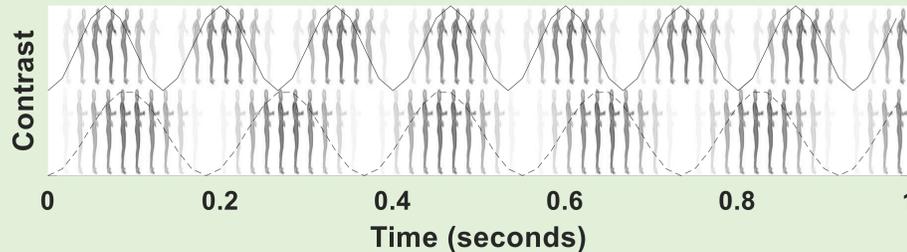
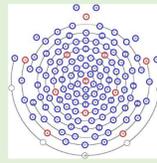
1. Is this **representation holistic**, i.e. more than the sum of individuals?
2. Can we trace **neural integration** in the electroencephalogram (EEG)? (Adibpour *et al.*, 2021)
3. How specific is it to **social perception**? (Vestner *et al.*, 2021)

Method

Dual frequency tagging



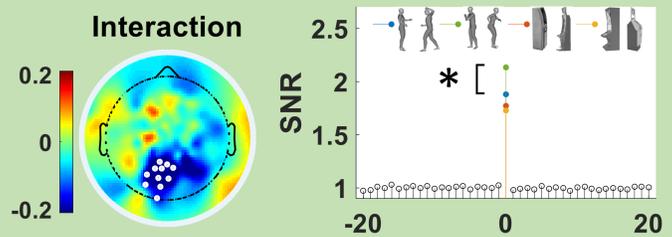
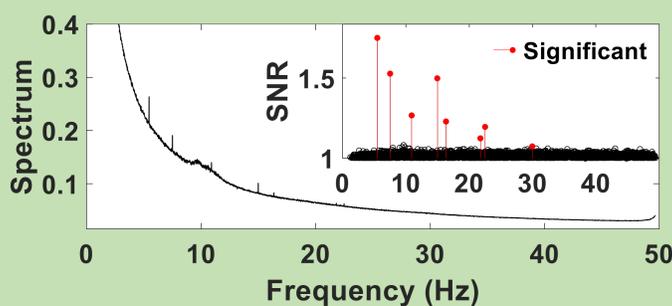
Participant N=32
EGI 128 electrodes



Individual signal: F1, F2 & harmonic frequencies ($nF1$ & $mF2$)
Integration signal: intermodulation frequencies ($nF1 \pm mF2$)

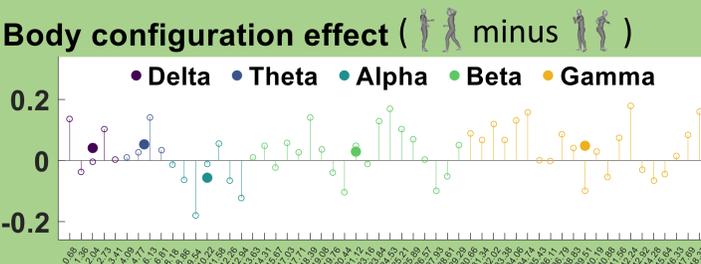
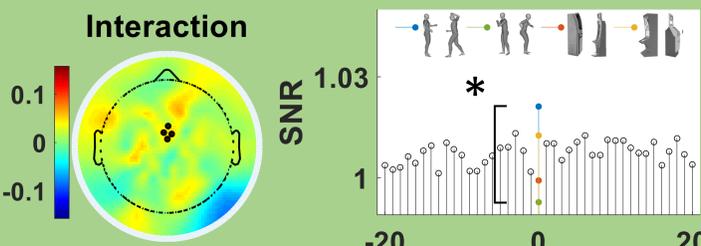
Attention: Alpha suppression (% change from baseline)
Orthogonal task: detect cross **color** changes

Results

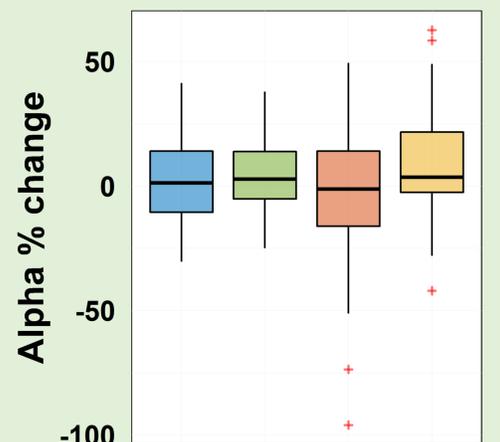


Individual signal

Average SNR of all possible intermodulation frequencies <50 Hz ($nF1 \pm mF2 = 56f$)



Integration signal



Face-to-face < Back-to-back overall

Attention modulation

Discussion

Signal at intermodulation frequencies ($nF1 \pm mF2$) suggests holistic processing of face-to-face bodies, but not back-to-back bodies or object dyads.

Stronger Alpha suppression might indicate a general attentional enhancement with items face-to-face of any category.

These results could unravel the mechanism to integrate two interacting bodies into a unitary event.