

MILESTONE 3: TEAM „NEURONAUTS“

Members: Jan Hagnberger, Jianyang Gu

Dataset: Reaching Task

	Step	Authors	NeuroNauts
Preprocessing	EEG Delay Correction	Subtract 63ms	Subtract 63ms
	Temporal Cleaning	Manually remove bad events for each subject	Manually remove bad events for each subject (<i>bad events known</i>)
	Bad Channels	Manual	Manual
	Filter	>1Hz & <125Hz	>0.1Hz (<i>following lecture</i>) & <125Hz
	Resampling	250 Hz	250 Hz
	Re-referencing	Channel average	Channel average
	Artefact Cleaning	Automatic based on amplitude differences	ASR (Automatic Subspace Reconstruction) (<i>computation heavy</i>)
	50Hz Noise	AM-ICA (Adaptive Mixture ICA)	Notch filter (<i>easy approach</i>)
	Eye Blinks	AM-ICA + manual selection of components	ICA (<i>state-of-the-art choice according to lecture</i>)
ERP	Filter	>0.25Hz & < 35Hz	>0.5Hz to 35Hz
	Electrode	FCz	FCz (<i>important point for prediction error negativity</i>)
	Time Window	-0.3 to 0.7s	-0.1 to 1.0s
	Baseline Correction	Subtract mean of pre-stimulus period	High-pass filter at ~0.5Hz (<i>following lecture</i>)
	Averaging	Mean	Mean

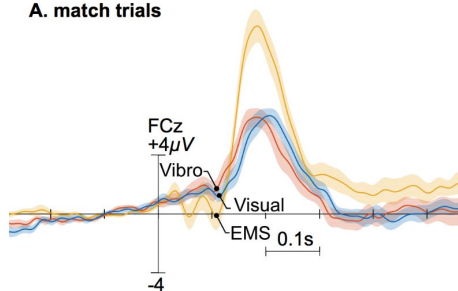
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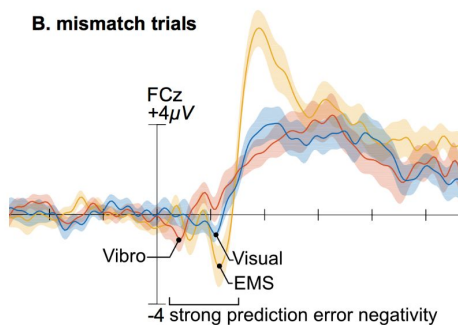
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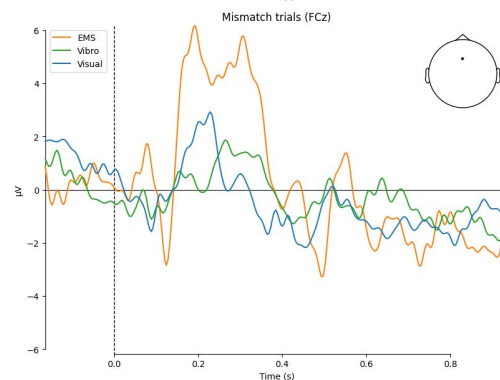
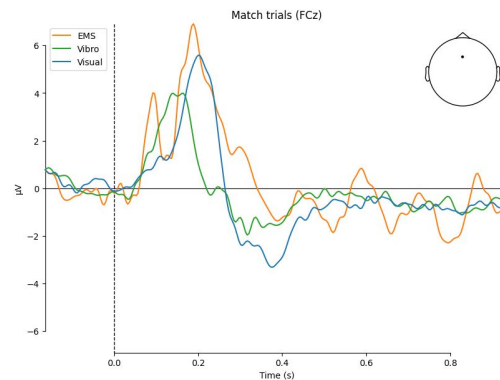
A. match trials



B. mismatch trials



Results from paper



Results for one subject