Milestone 4: Team Brownie





Steps

Step	Done	Remaining
Preprocessing	 Detect/remove noisy channels Filter (frequency; trials - exclude first 4) Epoching ICA - Basic impl, marking bad components for some subjects p2p rejection 	- p2p rejection - 40uV point-to-point - implement manually?
Sensor-space	- Evoked data per condition	- Interpretation
Find outliers		- After all subjects' info available
Contrast	- Contrasting win vs loss conditions using the pipeline	- Interpretation

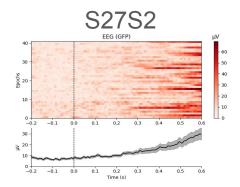
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Sanity Checks

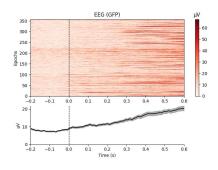
Check	Expectation	Rationale
unfiltered vs filtered dataset	- unfiltered dataset noisier than filtered for high-reward slots on cue onset	- subjects learn pattern to react accordingly, i.e. pulling the right arm instead of random guessing
Cue onset in high and low casinos	- all cue ERPs similar	- no difference in slot probabilities within the casino, i.e. subjects shouldn't prefer one slot over another
Cue onset for medium casinos	 high cue ERPs similar low cue ERPs similar avg low cue ERPs ≠ avg. high cue ERPs 	- same as above - in theory subject should be "happy" about high cue and "sad" about low cue - not really though as only 3ct per win
The unexpected occured: losing when pulling correct arm	Mismatch Negativity maybe visible?or larger P3?N400?	- surprise ERPs

Take all Sanity Checks with a grain of salt → Not enough data points for each slot!

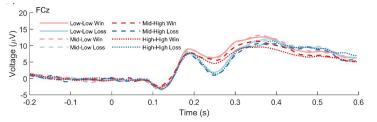
Example Results

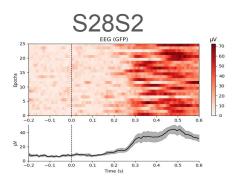


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Paper Results





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