A Longitudinal Analysis of the Synchronized Brainwave Dataset

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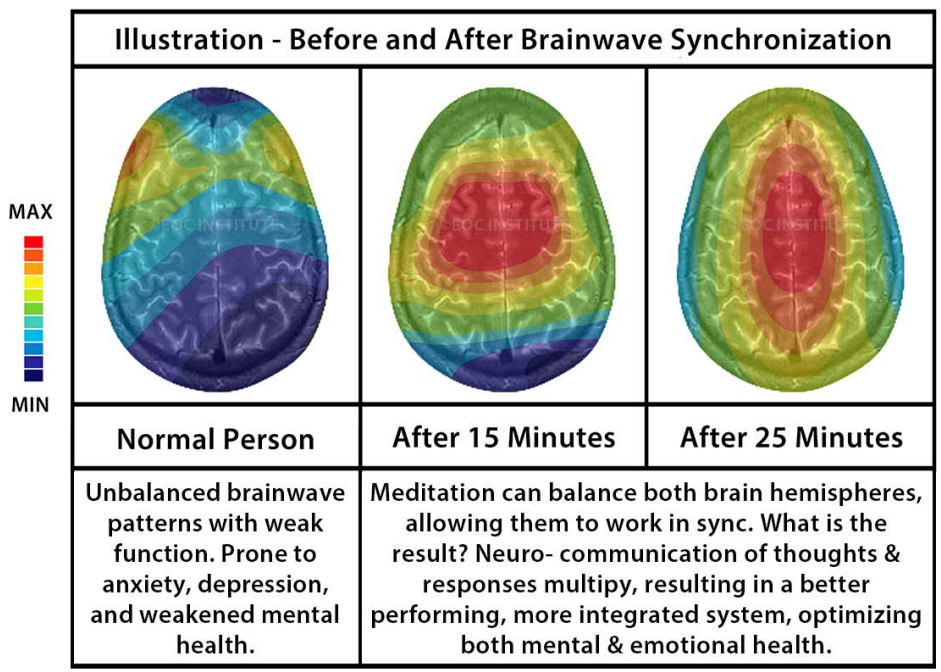
Inspiration

- Has been a growing interest over recent years to further understand the brain's ability to comprehend information at a faster rate
- Researchers at MIT performed an experiment on Monkeys where they discovered that synchronized brain waves enable rapid learning. (Trafton 2014)



Introduction

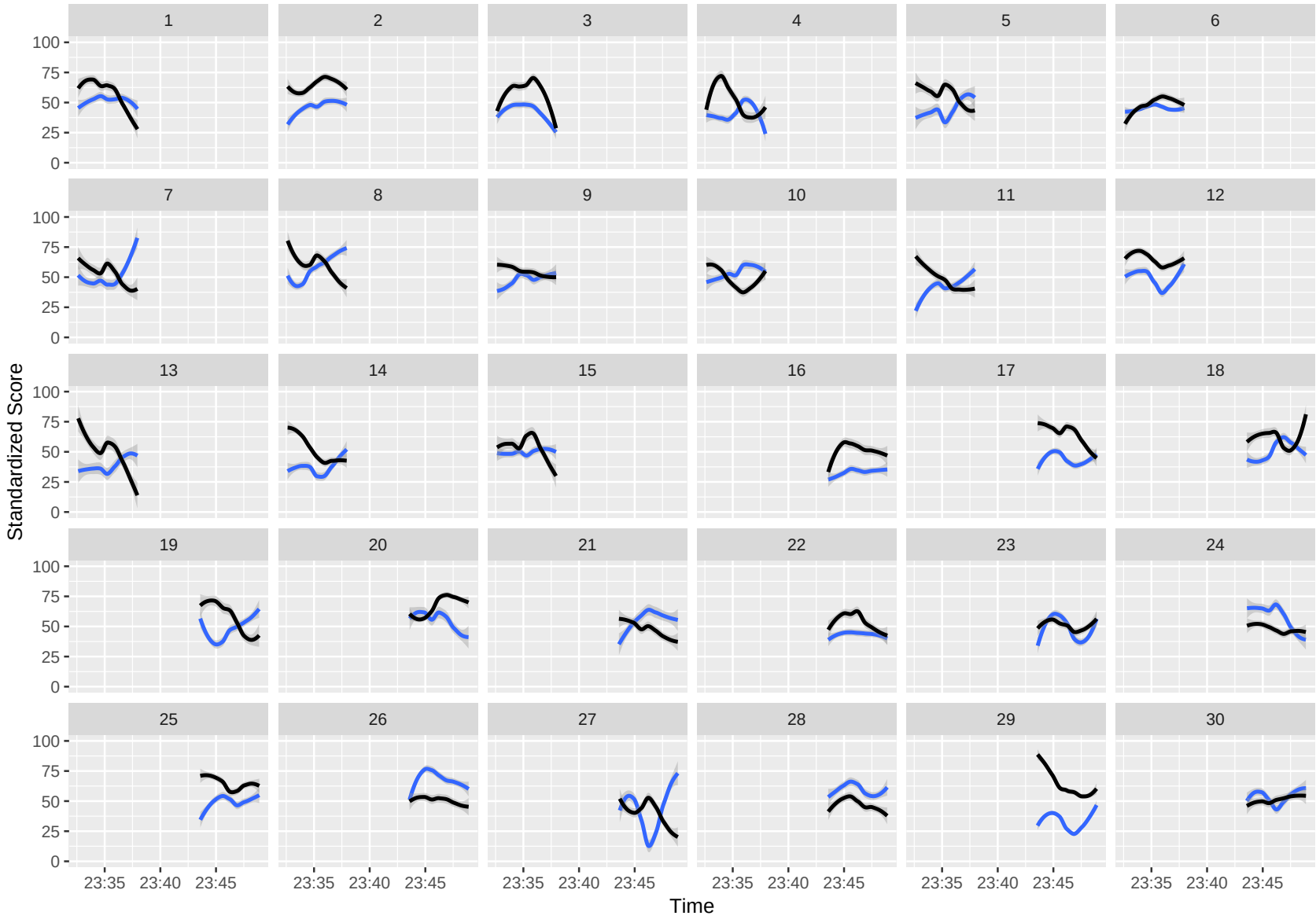
- As a next step, we thought it would be intriguing to explore this idea further by investigating how ones' brain waves can be manipulated to maintain a synchronized neurological state so that cognitive function is optimized.
- To do this we analyzed EEG data collected on subjects exposed to different stimuli.

Background

- Study involved 30 voluntary students from UC Berkeley.
- Participants where randomly assigned to watch one of the two stimulus videos (both videos where 5 minutes and 19 seconds long).
- Everyone was hooked up to an Electroencephalography (EEG) which recorded electrical brain activity as they viewed the video and followed the instructions.

Covariates

Smoothed Trajectories by Subject



References

Trafton, Anne. 2014. "Synchronized Brain Waves Enable Rapid Learning." *MIT NEWS on Campus and Around the World*.