Poster Presentation P21

THE EFFECT OF LOAD ON FRONTAL THETA RESET IN A WORKING MEMORY TASK

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Working memory, an executive function that actively maintains information in the mind while other complex tasks may be performed, is used in higher order tasks such as problem solving, decision making, and planning. Effortful use of cognitive resources when utilizing working memory can be measured by comparing the levels of theta frequency in an electroencephalogram (EEG). The theta frequency band is the oscillation of the brain's electrical activity between 4-8 Hz. This study seeks to define the function of theta rhythm in the human brain and ultimately a more complete understanding of human memory. In order to do this, participants' neural activity is recorded during a visual working memory task to discover the effect of memory load on the observed theta rhythm.