

## **The Search for a Psi-Mediated, Event-Related Desynchronization**

### **Results:**

As part of our on-going search for neurons in the central nervous system that are specialized for sensing anomalous cognition (AC), we conducted an experiment to detect event-related desynchronizations (ERD's) resulting from an AC stimulus. An ERD is the abrupt and momentary decrease of alpha power as a reaction to an external stimulus or an internal cognitive or motion-initiating trigger.

Three receivers (i.e., experiment participants) contributed a total of 70 trials during which both AC and EEG data were collected. The AC data, which have been blind judged by the usual rank-order method, yielded independently significant results for two of the three receivers, and the overall AC result was significant at  $p=0.006$  ( $ES = 0.303$ ).

Using a cross correlation technique, which was twice as sensitive as standard signal averaging, we did not observe any evidence for an ERD in response to an AC stimulus. Our analysis technique was sensitive enough to detect a 20% decrease of prestimulus alpha power.

We provide a number of potential arguments to understand this result and suggest an experiment using positron emission tomography to continue the search for an AC correlate in the central nervous system.

### **Published Work:**

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### **Researcher's Contacts:**

Edwin May  
Laboratories for Fundamental Research,  
415 Cambridge Ave., Suite 3  
Palo Alto, CA 94306 US.

Phone: +1 (650) 473-0817  
Fax: +1 (650) 618-1926  
E-mail: [may@lfr.org](mailto:may@lfr.org)