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Introduction to the Videos

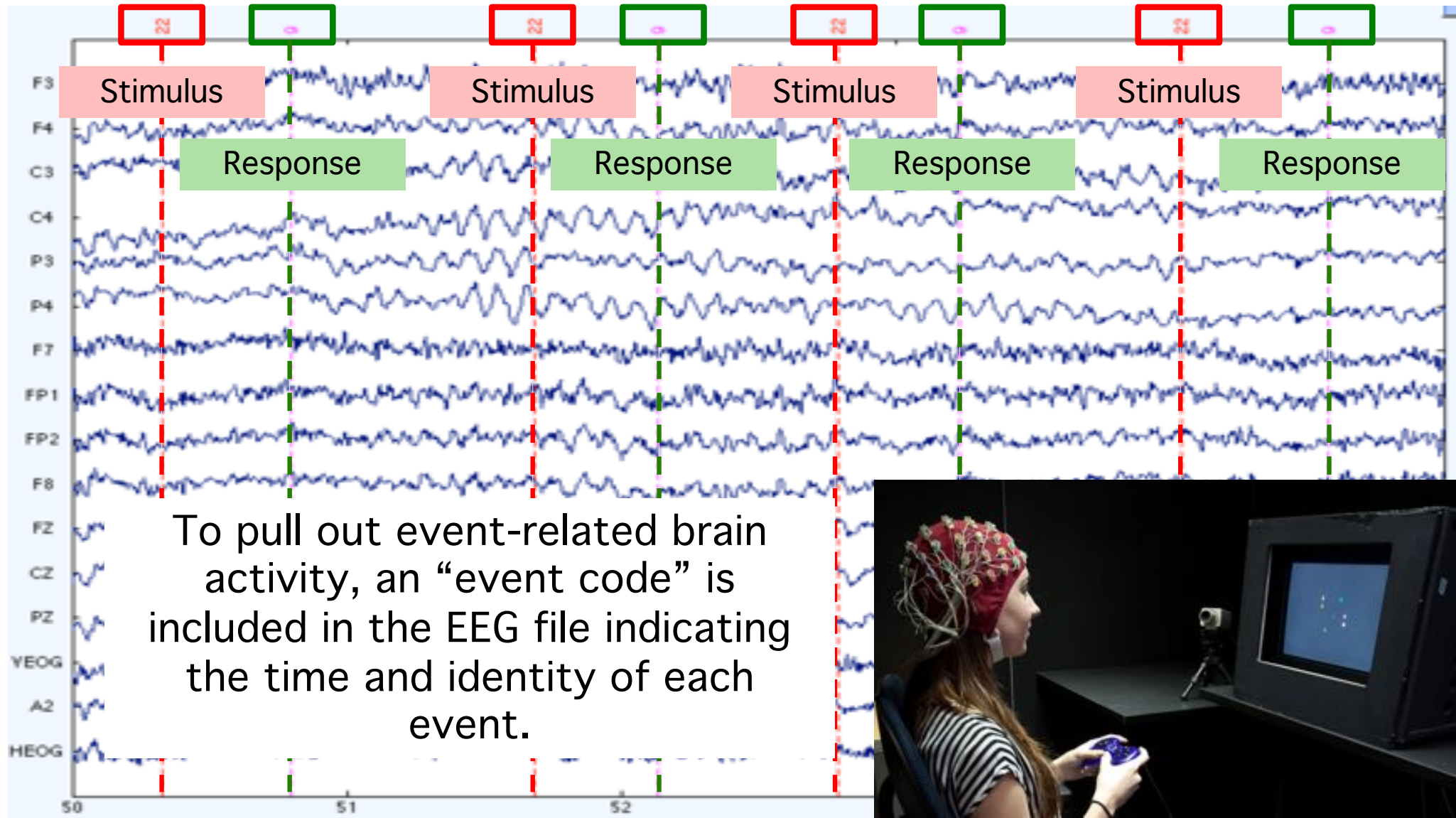




The idea that we can record brain activity from electrodes on the scalp seems preposterous.

The image shows several parallel traces of raw EEG data, rendered in red ink on a light-colored background. The traces are slightly tilted and show various waveforms, including sharp peaks and broader, lower-frequency oscillations, representing different channels of brain activity.

The raw EEG can indicate general state, but it can't tell us much about specific neurocognitive processes.



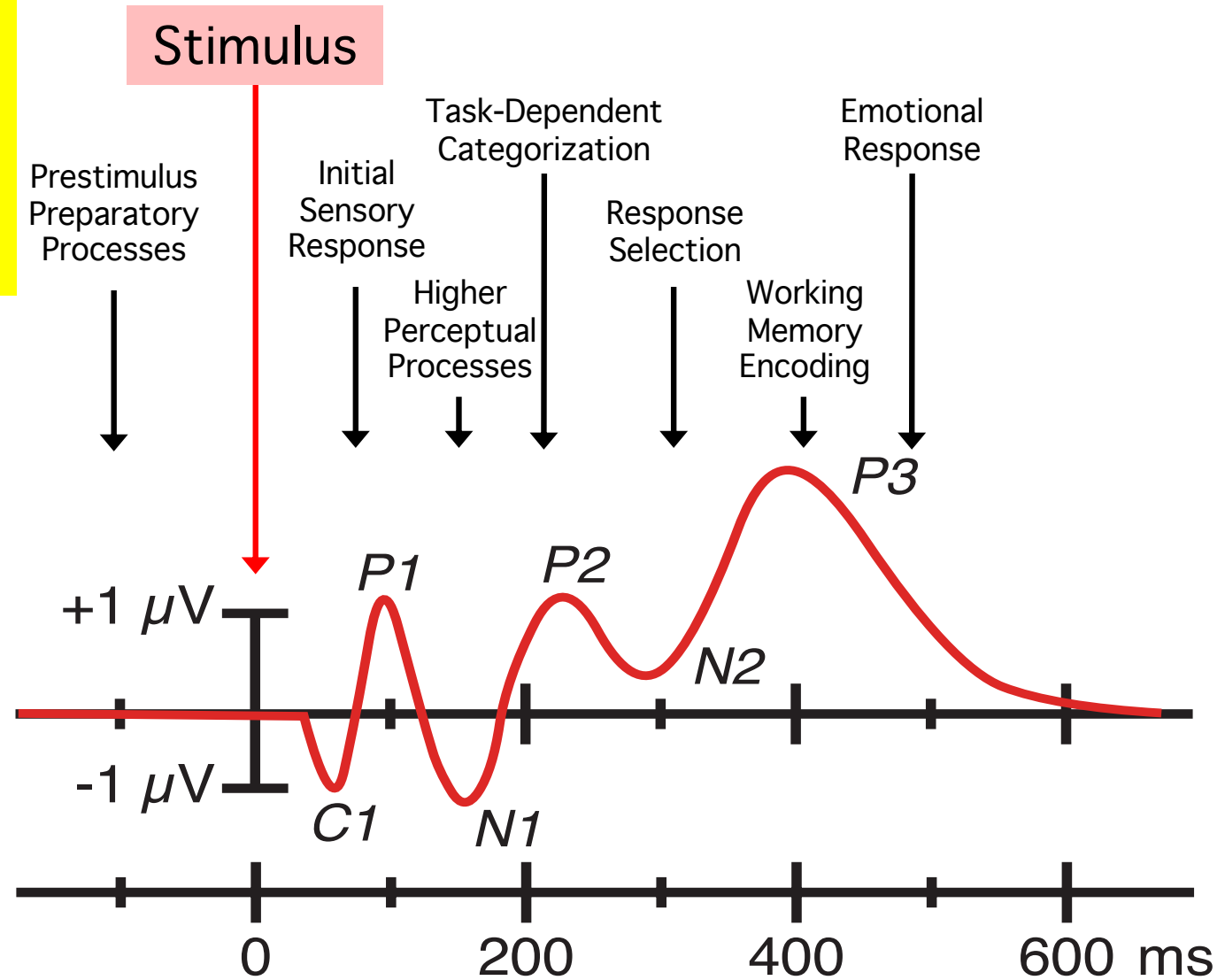
To pull out event-related brain activity, an “event code” is included in the EEG file indicating the time and identity of each event.

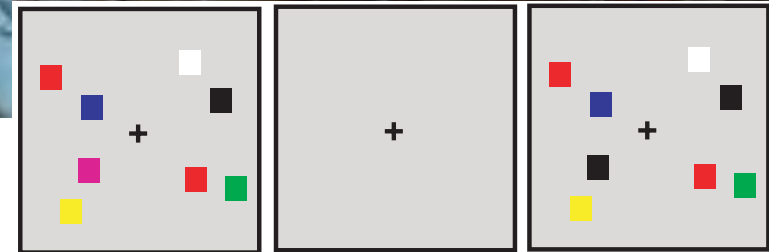


Event-Related Potential

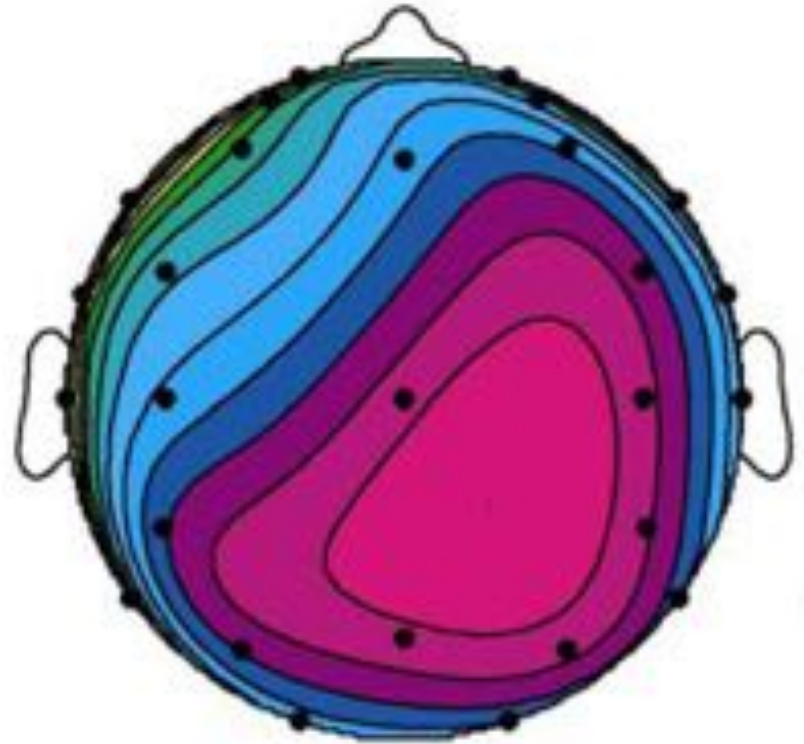
An electrical potential (voltage) generated by the brain that is related to an event

ERP





ERPs can be used to explore a huge range of topics, including development, visual attention, anxiety & depression, individual differences in working memory, and who will eventually awake from a coma



We don't usually know which specific areas of the brain are producing the voltages we're recording from our scalp electrodes.

But ERPs can still tell us a great deal about the mind and brain that would be difficult to learn from any other technique.