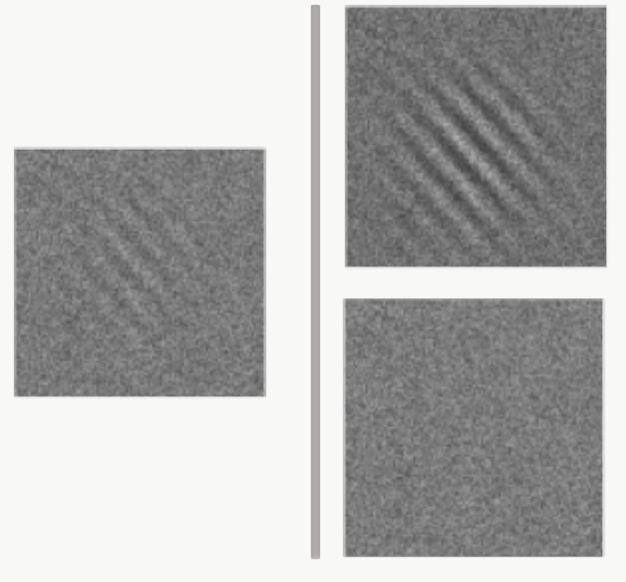
Cardiac signals modulate visual awareness

Leupin, Moret & Britz

Same stimulus



You see the signal (aware)

OR

You only see the noise (unaware)

We can investigate the differences in awarenes by comparing:

Here's what we found

Stimulus



Pre-stimulus differences in brain activity



Pre-stimulus differences in the response of the brain to the heartbeat

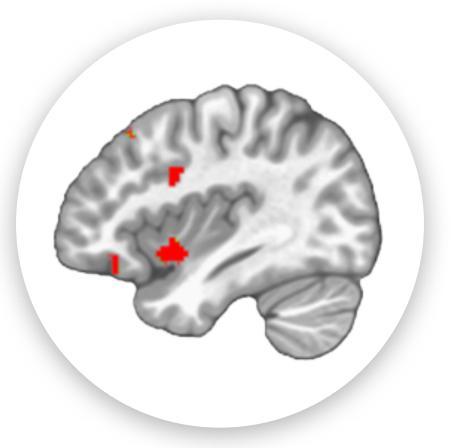
Stimulus-evoked

differences in brain activity

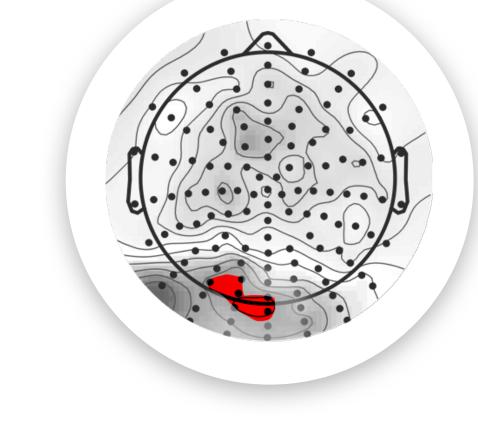
Stimulus evoked

differences in brain activity as a function of the cardiac phase (systole vs diastole)

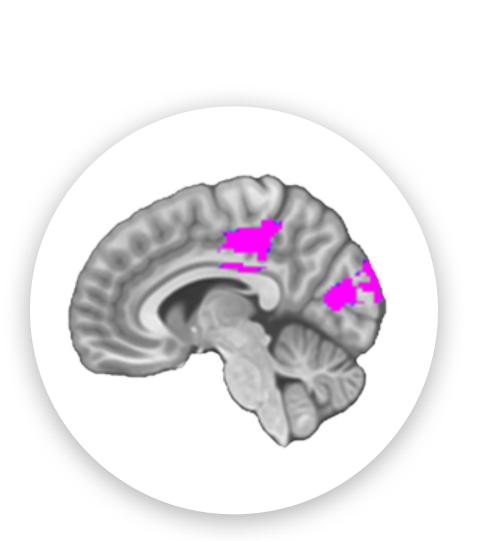
Stimulus



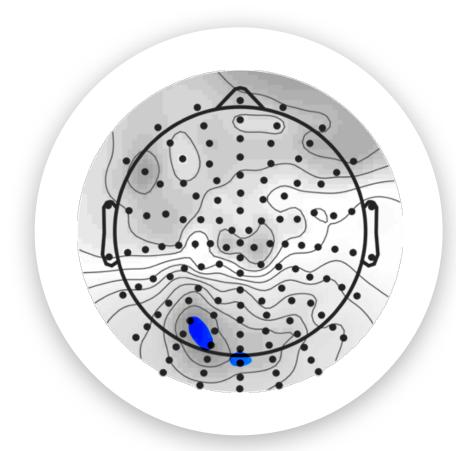
Heartbeat-evoked increases in activation of the saliency network enhances awareness



Sensory component (P1) is modulated during the systole



Heartbeat-evoked increases
in activation of the default
 mode network impairs
 awareness



Cognitive component (VAN) is modulated during the diastole