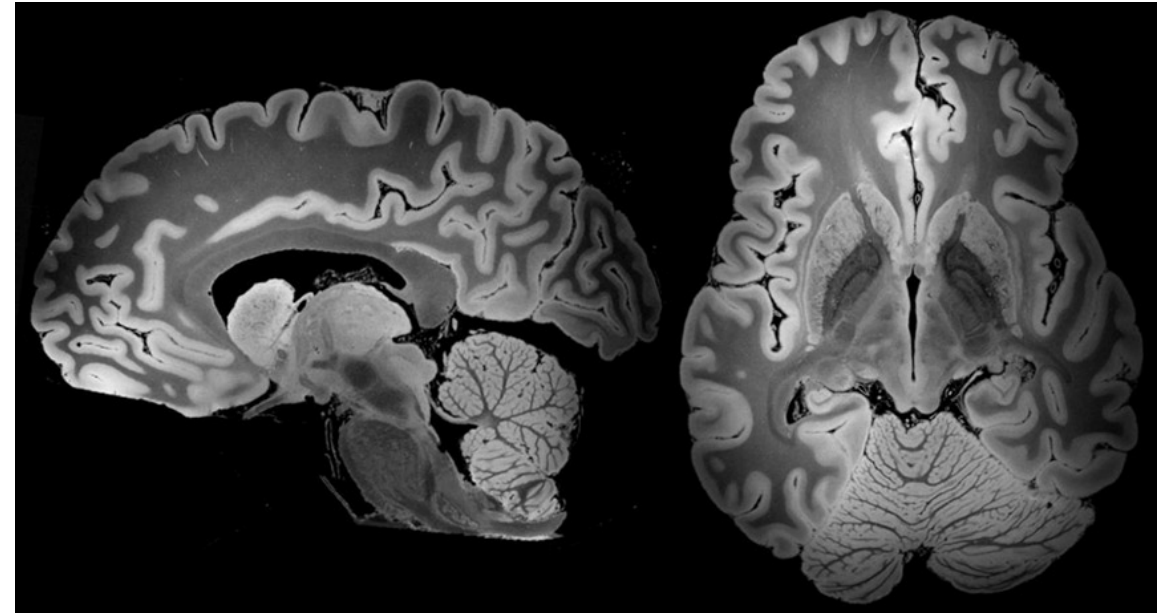


The Impact of Arousal on Cognitive Function and Cortical State





About Me

L I B C

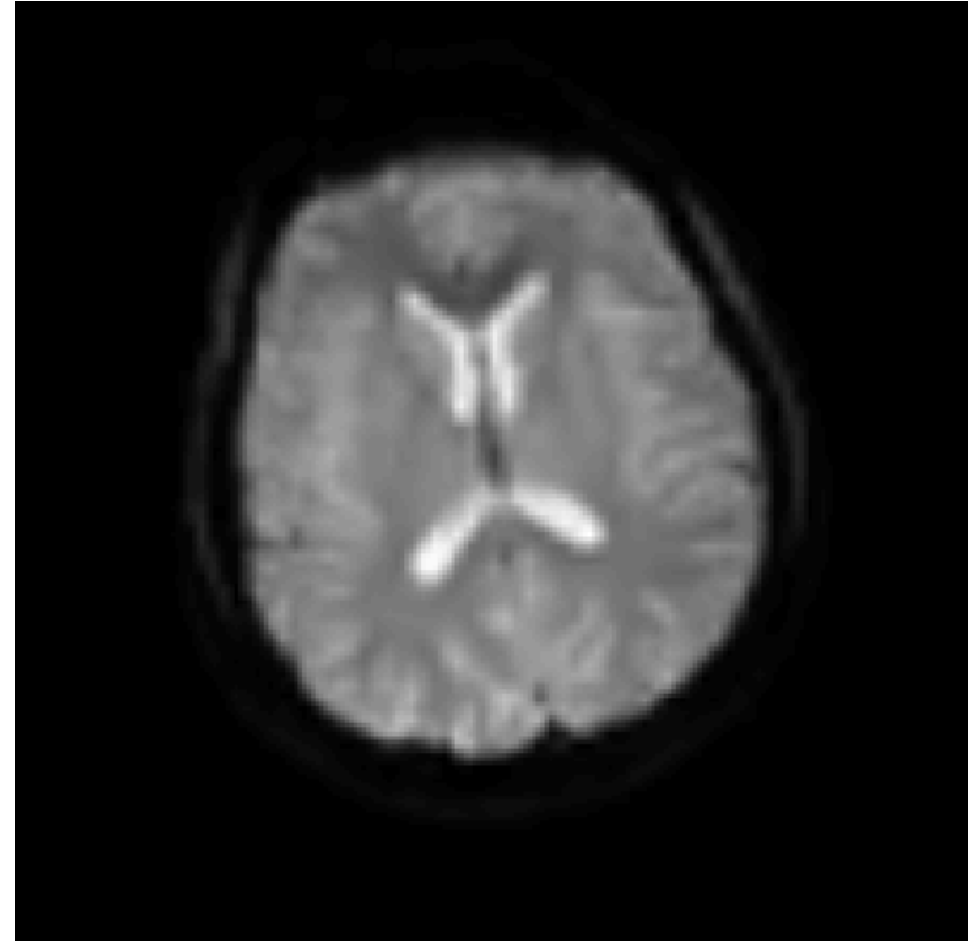


**Universiteit
Leiden**

- Senior at the University of Alabama Birmingham
- Neuroscience Major
- Chemistry Minor
- Future Plans: Attend Medical School

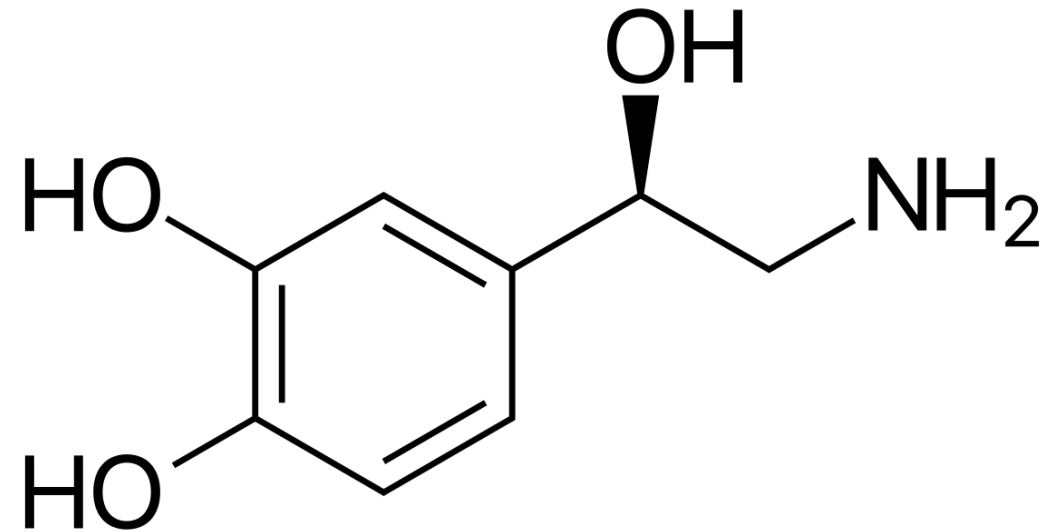
FMRI

- Images have to be taken quickly, which requires lower resolutions
- The BOLD response (blood oxygen level dependent) is used to measure brain activity
- This works because hemoglobin with oxygen has different magnetic properties than without oxygen.



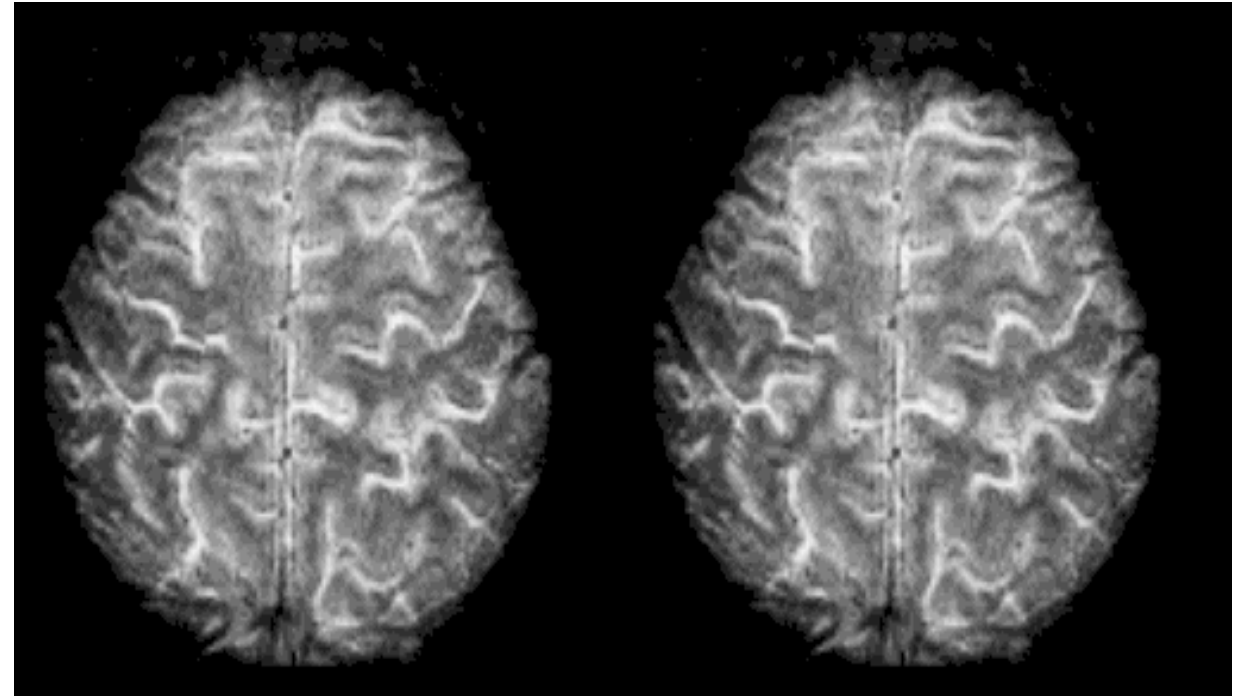
Effects of Noradrenaline

- Arousal is generally governed by the noradrenergic system in the brain.
- Noradrenaline has an effect on brain connectivity and plays a role in many disorders such as ADHD
- Atomoxetine increases the amount of noradrenaline in the brain



Working Memory

- Working Memory involves storing short term information and using it to perform cognitive tasks
- Tasks such as the N-back task are used to collect data on working memory



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