COGS 1

Week 5
The Brain and Sleep
Announcements

• Midterm: Thursday, February 4th
• Scantrons will be provided, bring your pencils and brains!
### This Week’s Questions:
The Brain and Cognition

- Who has cognition?
- What’s the Paradox of Choice?
- What affects decisions?
- Signal and Noise
- Electrocorticography/ TMS
What is Cognition?

• Who and what can be argued to have cognition?
  • Can you name some examples?
Paradox of Choice

- What happened in the jam experiment?

Are we rational or irrational?
- What about the cake or fruit experiment? Why did the results come out like they did?
  - what about judges?
Signal Versus Noise

- Can you always trust your senses to pick up all stimuli?
  - Can you name two examples where you can’t?
  - What about an example of the strength of our senses?
- Does the brain regulate sensation perception by speed?
Electrocorticography & TMS

- Why is the skull important?
- Which patients benefit?
- How does TMS work?
  - what can you break with it?
This Week’s Questions: Sleep and Metabolism

- Brain centers for sleep and the hormones they rely on
- Downstream effects of sleep deprivation
  - Cellular and psychological effects
  - Sleep hygiene
- Alzheimer’s Disease
Brain Centers and their Hormones

• What is the brain’s “clock?”
• Which hormones regulate this clock?
  • can you break it?

• What’s happening in this picture? →
Downstream Sleep Effects

• What are some potential areas of damage caused by poor sleep?
• How do you help yourself to sleep better?
Alzheimer’s Disease

• What appears in the brains of Alzheimer’s patients?

• Are there genetic components to AD?

• When does it usually occur?
Good luck on your midterm!

Keep in mind that these slides are a quick recap of the last week’s work, and that not all important material can be covered in the 35 minutes we get to talk. Check out the lecture slides, check out the podcast, and use your TAs to answer any questions you still have!