

## COGS 105 Study Guide for Exam 1

The exam will be **entirely multiple choice questions**. However, to help focus your study, I include a list of key questions that you should be able to explain to a friend or family member if they were curious about cognitive science methods. I will be drawing questions from these topics in a similar spirit to these queries.

### *Exam 1 focus: Philosophy and Cognitive Psychology Methods*

- What is **CRUM** and how does it relate to a **computer**?
- What is the relationship between **Skinner and Chomsky** in the history of cognitive science?
- What is the **Turing Test** and how does it relate to the determination of intelligence?
- Can you briefly describe **reaction time** to me, as a methodological strategy?
- What is the relationship between **simple responses, recognition responses, and choice responses**?
- What is the **lexical decision task** and how does it relate to RT?
- Why does the **Word Superiority Effect** challenge some simple assumptions about mental processing?
- What is a **thought experiment**, and are there different kinds?
- What is a **destructive thought experiment**?
- What's this crazy **Mary the Color Expert** thought experiment?
- How does **Dennett's counter thought experiment** relate to Jackson's thought experiment?
- Why does **experimental philosophy** burn the armchair?
- What is the **Knobe effect**?
- What is the difference between an **inductive and deductive argument**?
- What is a **contingent statement**?
- How does a reaction-time experiment reveal the **basics of the scientific method**?
- How do **assumptions about your experiment** relate to interpreting how an experiment fails?
- Is there such a thing as a **critical experiment**?
- What is a **between- vs. within-subject experiment**, in terms of the **conditions** you are testing?
- What are **biases that might occur in sampling**, including sampling stimuli for our experiment?
- Can you briefly describe **construct validity** for me?
- What is the difference between **predictive and convergent validity**?
- What is the difference between **validity and reliability**?
- **How does the IAT use RT** to study stereotypes and biases?
- What is an **inter-stimulus interval** in an RT task? Why is it important?
- Very briefly describe **Hick's law** for me?
- How do **arousal, stimulus intensity, and accusations** of error affect RT?
- What is the **Woodcock-Johnson**, as described in lecture and the Salthouse paper?
- What are **types of processing speed** we can study in aging?
- How are **Ramscar and colleagues challenging the aging and RT** paradigm?
- Can you briefly contrast the **types of priming**, prior, concurrent, and contextual?
- Are primes always **unconscious**? If not, how can be **"unconscious"**?
- Can you briefly describe **what a moderating variable is**, and give me an example of one in social priming?
- How is **priming embodied**, the way Bargh et al. describe?
- What is evidence that **even very young children can be socially primed**?
- What is the concept of **"experimenter degree of freedom"**? Describe **p-hacking**, an example of it.
- Briefly describe the **Many Labs publication, and its findings**.
- What is an **IRB**?
- What is **publication bias**?
- Why is **replication important to science**?