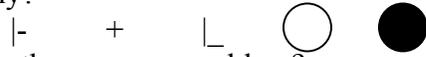


Midterm 1 review questions

- Explain the “gavagai” problem. What is its relevance to language learning?
- What is one way in which organisms can learn effectively despite living in a very complicated world? Give specific examples.
- What are two key facets of scientific observation?
- What assumptions did behaviorism make? What scientific evidence suggested that these assumptions were wrong?
- What influences did cognitive psychology draw from introspectionism and behaviorism?
- Why was the Turing machine an important postulate for cognitive science?
- What is a Turing test? What makes it difficult?
- What are the relative advantages and disadvantages of different neuroscientific techniques used to explore brain activity?
- What are two reasons that attention might be limited?
- What are some of the functions of attention? Give examples of each.
- What is the span of apprehension? What limits it? Give experimental evidence to support your assertion.
- What are some auditory attributes you can focus attention on? What visual attributes?
- Suppose you were raptly watching television as your roommate was confessing his/her dating woes to you. Later, what would you know about what your roommate was saying according to early selection models? Filter models with priorities? Late selection models?
- What is the function of attention that may be misdirected in ADHD? Support your claim with experimental evidence.
- What is the role of attention in Feature Integration Theory? When is attention unnecessary? When is it necessary?
- What piece of information must the learner have if they have detected a target in a serial (effortful) search?
- What did Schneider and Shiffrin discover about letter searches—i.e., under what circumstances do they become easier?
- Suppose you are searching a leafy tree for red fruit (that may or may not be present). What might make it easier to detect the presence of fruit? What if you were colorblind?
- What characteristics of visual search make it easier or harder? What distinguishes parallel from serial searches?
- Under what conditions did Strayer & Johnston find that driving performance was impaired? What was their dependent measure?
- Describe the psychological refractory period (PRP) task. What does it suggest about central bottlenecks? How was this related to Levy, Pashler and Boer’s (2006) driving experiment?
- Describe Chun’s work on visual search. What sort of searches were his subjects doing? What were the crucial control conditions? What did his results suggest about search performance (what factors improved search and why)?

How is memory important for perception? Give an illustration.

Consider feature-detection, structural-description, and template models of object recognition. Which of the following would each model be able to differentiate from the others, and why?



What is the anagram problem?

Name at least two pieces of experimental evidence suggesting that faces are perceived holistically.

Is template-based recognition holistic or analytic?

Discuss the evidence for viewer-centered object representations.

What is the role of the FFA according to Kanwisher and colleagues? According to Gauthier and Tarr? Cite evidence in each case.

Explain how the interactive activation model accounts for the word superiority effect and top-down effects on letter recognition.

What did Green & Bavelier find was improved in video-game players? How do we know that this was not the result of VGPs being better to begin with? What did they hypothesize was the operative factor in creating improvements?

What did Bavelier et al. find about the attentional abilities of deaf native signers? What did they find with bilingual (hearing) native signers? Why might this be?

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