Study Guide for Midterm Exam 2

** Study the **bolded terms** from the chapter and know how they relate to each other.

**Language**

1. What are the five major properties of human language?
2. What are the major hierarchical levels of linguistic structure?
3. How is phrase structure related to meaning?
4. How can ambiguities be resolved based on structure? What other factors contribute to ambiguity resolution? Why are gardenpath sentences difficult for SAM to analyze?
5. What are the unspoken assumptions about cooperation between speaker and listener? Describe Grice’s conversational maxims and give examples of these.
6. What is currently given as evidence for the nature vs. nurture basis of language abilities? What were the main positions on language learning taken by behaviorists, such as Skinner, and by nativists, such as Chomsky? What is the critical period hypothesis? What evidence exists that support the existence of critical periods in language learning?
7. Describe a child’s communicative and linguistic abilities at ages 6 mo, 1 yr, 2 yr, and 3 yr. Discuss both production and comprehension abilities. What kinds of principles seem to govern children’s abilities to acquire syntax and word meanings?
8. Give examples of how conversation is an inherently interactive process. Discuss disfluencies, such as um and uh; the coordination of meaning; and the notion of joint construal.
9. What did Whorf claim about the relation of words in the language to the way we think about things? How did this claim extend to syntactic structure? Is there evidence to support the claim?
Learning

1. Describe the point of view of learning theorists, their fit with American values, and the reason that most of their work focused on nonhuman animals.

2. Distinguish between habituation and sensitization and discuss their adaptive significance.

3. Explain the basic procedure of classical conditioning, and define conditioned and unconditioned stimuli and responses.

4. Describe generalization and discrimination, and contrast the two processes.

5. Show how the conditioned response often functions to prepare the organism for the unconditioned stimulus, and hence that the CR and UCR often differ. Illustrate this with the example of the conditioned compensatory response (CCR) and its account of drug tolerance and addiction.

6. Review the major similarities and differences between classical and instrumental conditioning.

7. Explain Thorndike’s Law of Effect and indicate the evidence that supports it.

8. Give examples of primary and conditioned reinforcers, and describe how conditioned reinforcers can be produced or eliminated.

9. Define and describe schedules of reinforcement and their properties, and indicate the effect of schedules on resistance to extinction.

10. Indicate the ways in which aversive stimuli influence learning, by describing punishment, escape, and avoidance learning. Why does avoidance learning present a problem for learning theory?

11. Distinguish contiguity and contingency, and explain the studies that indicate that contingency is a critical factor in the formation of conditioned responses.

12. Explain the role of surprise in learning, and show how blocking demonstrates this.

13. Explain the role of contingency in instrumental conditioning, and its relation to learned helplessness. How has learned helplessness been used to explain some types of depression in humans?

14. Describe the phenomenon of taste aversion learning, and indicate why it illustrates biological constraints. Describe acquired taste aversions in humans.

15. What is long-term potentiation (LTP), and how might it account for learning and, in particular, contingency detection?

16. What are cognitive maps and what is the evidence that animals have them?

17. How do we determine whether insight or trial and error is a better way of describing a particular learned behavior? What is the role of transfer of training in making this distinction?
Memory

1. Describe the distinctions between working and long-term memory, between declarative (explicit) and procedural (implicit) memory, and between episodic and semantic (generic) memory.

2. What is meant by the terms encoding, storage, and retrieval? How do these processes differ from one another?

3. What is maintenance rehearsal? Does the amount of maintenance rehearsal affect the probability of information’s entering long-term memory? Cite the relevant evidence.

4. Describe some mnemonics, and understand how they work to affect memory capacity. What are the practical limitations of mnemonics?

5. Understand the role of retrieval cues in increasing the accessibility of memory traces. Describe state dependent retention and context shift effect studies and explain how they relate to the importance of retrieval cues.

6. How is memory searched? What does the tip-of-the-tongue phenomenon tell us about memory search?

7. Be sure you understand the importance of the “overnight fame” experiment and its relation to implicit memory.

8. Recount the evidence for and against consolidation theory and retrieval failure theory.

9. Give some accounts of the forgetting of childhood memories. Some memories (childhood or not) seem to last quite a long time. Give examples. What factors affect this?

10. How are flashbulb memories claimed to be different from other memories? Are these memories really treated differently by the memory system? Discuss the evidence.

11. Memory is an important issue in the courtroom. What does research tell us about the fallibility of eyewitness testimony? Describe how eyewitness memory may be a reconstruction of earlier events. Is hypnosis a reliable way of helping a witness remember an event? What is the evidence on whether hypnosis improves retrieval?

12. Why is there reason to be cautious about the concept of “repressed memories”? What issues should one be concerned about in examining cases of this alleged phenomenon?

13. How does retrograde amnesia differ from anterograde amnesia? What mechanisms have been proposed to account for retrograde and anterograde amnesia? What sorts of learning are spared in anterograde amnesia? How is the distinction between declarative and procedural knowledge relevant to this issue?
Thought and Knowledge

1. How is thinking goal directed? How is thinking hierarchical?
2. What is automaticity? How is it helpful? How can it be harmful? Give examples.
4. What is restructuring? How is it related to critical thinking?
5. What is the difference between deductive and inductive reasoning? Give examples of both.
6. What kinds of heuristics do people use when making decisions? How do people use them to make their judgments?
7. What is the confirmation bias? Do this bias apply to both inductive reasoning and deductive reasoning?
8. Give examples of errors in reasoning that are due to the way a problem is framed. How do people feel about gains and losses in their willingness to take on risk?

Cognitive Development

1. What are the four developmental stages according to Piaget? Describe each stage and characteristic behavior of children in each stage.
2. Is Piaget an empiricist? How do his theories compare to empiricist theories?
3. What are some methods that researchers use to study young children and infants (since they cannot communicate as effectively as adults and cannot always follow instructions)?
4. What does the visual cliff tell us about infant perception?
5. What kinds of knowledge do young infants have about the world? Do they start out as blank slates? What does current research say about what children understand about space, objects, and number?
6. What are some basic assumptions of a theory of mind? Give an example of a false belief test. What does it illustrate about a child’s cognitive development? At what approximate age does a child overcome this difficulty?