Unit 4: Memory, Thinking, and Language (chapters 7-8)

Learning Objective 1 (pp. 220-223): How Memory Operates — The Reconstructive Nature of Memory

1. What is memory?
2. What is meant by the phrase “The paradox of memory”?
3. What is a memory illusion?
4. How are memory illusions a byproduct of a natural tendency of the brain?
5. Why is it accurate to say we actively reconstruct events from memory rather than passively reproduce events?

Learning Objective 2 (pp. 223-224): The Three Systems of Memory — Sensory Memory

1. Describe the progression of information through the three memory systems. What happens to information as it passes through the systems?
2. What is meant by memory system span and duration?
3. What is the function and duration of sensory memory?
4. What is the function and duration of short-term memory?
5. What is the function and duration of long-term memory?
6. How does sensory memory help us to experience a stable, consistent flow of sensory information?
7. What are echoic and iconic memories?

Learning Objective 3 (pp. 225-227): Short-Term Memory — Chunking

1. Without rehearsal, how long is information held in short-term memory?
2. How is decay different from interference? How do both affect short-term memory?
3. What is meant by “The Magic Number” for short-term memory?
4. What is the process of chunking? How does chunking increase the capacity of short-term memory?

Learning Objective 4 (pp. 227-228): Rehearsal — Depth of Processing

1. What is rehearsal? Why is it effective?
2. What is the difference between maintenance rehearsal and elaborative rehearsal? How do these types of rehearsal relate to the level of processing in memory?
3. What are the differences between visual, semantic, and phonological processing for verbal information, and what is the depth (and success) of each?

Learning Objective 5 (pp. 228-230): Long-Term Memory — Primacy and Recency Effects

1. Describe the major differences between the long-term and short-term memory systems.
2. Why is remembering what you did 40 minutes ago dependent on long-term memory?
3. What is meant by permastore? How does it relate to long-term memory?
4. How do the primacy and recency effects influence remembering?
Learning Objective 6 (pp. 230-231): Types of Long-term Memory

1. Describe the difference between semantic and episodic memories, and recognize examples of each.
2. Why are semantic and episodic memories each an explicit memory?
3. What is procedural memory? What types of daily activities involve procedural memory?
4. Explain how procedural memory is a form of implicit memory.
5. Describe priming and how it may affect our recall of information. Explain how priming is an aspect of implicit memory.

Learning Objective 7 (pp. 232-236): Three Processes of Memory — Music

1. List the three basic processes in memory and describe how information passes through these three processes.
2. What is encoding?
3. What role does attention play in the encoding process?
4. What is a mnemonic? Why do mnemonics help with encoding information?
5. In what types of situations are mnemonics most helpful?

Learning Objective 8 (pp. 236-237): Storage: Filing Away Our Memories — Schemas and Memory Mistakes

1. What is memory storage?
2. What is a schema? What kind of a schema is a script?
3. How can schemas influence our perception of experiences? What do schemas and scripts do for our ability to interact with, and remember, the world?
4. How are schemas part of the paradox of memory?

Learning Objective 9 (pp. 238-241): Retrieval: Heading for the “Stacks” — State Dependent Learning

1. What is retrieval? What are retrieval cues?
2. Describe the difference between recall and recognition. Which of the two is more difficult and why?
3. What is relearning, and how has relearning been used in research on forgetting?
4. What does the forgetting curve (Fig. 7.12) tell us about the pattern of forgetting?
5. What is the difference between distributed and massed practice? Which is a more effective learning approach?
6. What is the tip-of-the-tongue phenomenon? Why is it a type of incomplete knowledge?
7. What is context-dependent memory? Where might it influence scores on your PSY 101 tests?
8. What is state-dependent memory? When might a person be affected by it?
9. How do context and state dependence relate to encoding specificity?

Learning Objective 10 (pp. 241-245): The Biology of Memory — Easing Painful Memories

1. Why is the engram considered elusive? What is the current perspective on where memories are physically stored?
2. What is anterograde amnesia?
3. What is retrograde amnesia?
4. What did the research on Clive Wearing and H.M. reveal about the role of the hippocampus in memory formation?
5. Explain how the amygdala and the hippocampus play distinctive roles in the formation of memory.

Learning Objective 11 (pp. 249-253): False Memories: When Good Memory Goes Bad — Memories of Impossible or Implausible Events

1. How accurate are our long-term memories?
2. What are flashbulb memories? How accurate are they?
3. How does the recollection of a flashbulb memory change over time?
4. What is source monitoring and how does it work? Is source monitoring always accurate?
5. What is the misinformation effect? How is it related to false memories?
6. How does event plausibility influence the success of implanting false memories?

Learning Objective 12 (pp. 253-256): Generalizing From the Lab to the Real World — End of the chapter

1. What is known about the accuracy of eyewitness testimony? What are the consequences of eyewitness misidentifications?
2. Under what types of conditions is eyewitness testimony most accurate?
3. What are the effects on children of suggestion and schemas when testifying?
4. What is a recovered memory? What is the controversy concerning recovered memories?

Learning Objective 13 (pp. 264-265): Thinking and Reasoning — Cognitive Economy

1. What is thinking?
2. What is meant by cognitive economy?
3. What is a heuristic? How are heuristics connected to cognitive economy?
4. How is the use of heuristics a double-edged sword (meaning their use is both beneficial and detrimental to our thinking)?
5. What is intuition, and how accurate is intuition when drawing conclusions about people we meet?

Learning Objective 14 (pp. 265-268): Heuristics and Biases: Double Edged Swords — Top-Down Processing

1. What is the representativeness heuristic?
2. How does the representativeness heuristic relate to stereotypes?
3. How can the representativeness heuristic mislead us in our estimation of the likelihood of events? How is this cognitive bias related to base rates?
4. What is the availability heuristic? How might a recent news story cause an impression based on availability?
5. What is hindsight bias? What is confirmation bias? When have you used these?
6. How does top-down processing integrate concepts and schemas in our thinking?
Learning Objective 15 (pp. 274-276): How Does Language Work? — Language Dialects

1. What is language? What are the distinguishing characteristics of language? What is language’s purpose?
2. What are phonemes? What are some examples of phonemes in the English language?
3. What are morphemes? How are individual morphemes connected to semantics?
4. What is syntax? How does syntax help to create effective communication?
5. What is extralinguistic information? Describe some examples of extralinguistic communication. Explain how this information is essential to effective communication.

Learning Objective 16 (pp. 277-280): How Do Children Learn Language? — Critical Periods for Language Learning

1. What language preferences do newborn infants exhibit?
2. What is babbling? What is babbling’s role in language development? How does babbling change over the first ten months of development?
3. Which language ability develops at a faster pace: comprehension or production?
4. When do infants/toddlers produce their first words? How do toddlers communicate during the one-word stage?
5. What is a critical period for language development? How have researchers studied critical periods in language development? How has research on acquiring a second language modified the critical period hypothesis?

Learning Objective 17 (pp. 280-282): Special Cases of Language Learning — Bilingualism

1. What is sign language?
2. What evidence is there to support the claim that sign language is similar to spoken language?
3. What is bilingualism? What is the pattern of language development for a child raised in a bilingual environment?
4. What is the best predictor of successfully learning a second language? Why?
5. How is the acquisition of a second language related to metalinguistic awareness?

Learning Objective 18 (pp. 282-283): Theoretical Accounts of Language Acquisition — Teaching Human Language toNonhuman Animals

1. Describe Noam Chomsky’s nativist account for language development. What is meant by the language acquisition device? How does the concept of generativity provide support for this theory?
2. What are some of the criticisms of the nativist perspective?
3. What is the social pragmatics account of language acquisition? What are some of the criticisms of this perspective of language development?
4. What is the general cognitive processing account of language acquisition? What are some of the criticisms of this perspective of language development?
5. According to research on non-human communication, what circumstances produce the most communication among animals?
6. What can we conclude about attempts at teaching language to nonhuman animals?

1. What is linguistic determinism? What evidence supports linguistic determinism?
2. Why is it difficult to test linguistic determinism?
3. What is linguistic relativity? How is this hypothesis a modification of linguistic determinism?

Learning Objective 20 (pp. 287-288): Reading: Recognizing the Written Word

1. What does the Stroop Test demonstrate about reading?
2. What is whole word recognition? When are you most likely using this process?
3. What is phonetic decomposition? When is a person most likely using this process?
4. As an experienced reader, which approach to reading are you primarily using when you read a book?