Unit 3: Learning and Consciousness (chapters 5-6)

Learning Objective 1 (pp. 152-155): Learning — Classical Conditioning

1. What is learning?
2. What is habituation? What situations lead to habituation?
3. In Pavlov’s initial studies on associations in learning, what were the stimuli that were paired to create an association in the dog?
4. What is classical conditioning? What are reflexes and what role do they play in classical conditioning?
5. What is an unconditioned stimulus? What is meant by “unconditioned”?
6. What is a conditioned stimulus? What is meant by “conditioned”?
7. How does the conditioned stimulus come to be associated with an unconditioned stimulus in classical conditioning?
8. What is the difference between a conditioned response and an unconditioned response?

Learning Objective 2 (pp. 155-156): Principles of Classical Conditioning Part 1 — Renewal Effect

1. What is acquisition in classical conditioning?
2. What is extinction? In classical conditioning, what leads to extinction?
3. What is spontaneous recovery? What conditions lead to spontaneous recovery in classical conditioning? How does it show that an extinguished response is not really gone?
4. What is the renewal effect? How does it show that an extinguished response is not really gone?

Learning Objective 3 (pp. 156-157): Stimulus Generalization — Stimulus Discrimination

1. What is stimulus generalization? What influences the strength of a generalized response?
2. What is stimulus discrimination? When might discrimination training be necessary?

Learning Objective 4 (pp. 157-160): Applications of Classical Conditioning to Daily Life

1. How do advertisers use classical conditioning to sell products?
2. How did Watson and Rayner use classical conditioning to create a fear response in the Little Albert study? What was the CS? What was the UCS?
3. What was the significance of Watson and Rayner’s Little Albert study concerning the origin of fears?
4. How can classical conditioning be used to treat phobias?

Learning Objective 5 (pp. 161-163): Operant Conditioning — B.F. Skinner and Reinforcement

1. What is operant conditioning? What was E. L. Thorndike’s role in establishing operant conditioning?
2. How does operant conditioning differ from classical conditioning?
3. What are consequences of behavior? What role do the consequences of an action play in operant conditioning? How does this differ from classical conditioning?
4. What is an operant behavior? How is it different from a conditioned response? Why is the term “operant” applied to this behavior?
5. What is the law of effect?
Learning Objective 6 (pp. 164-165): Terminology of Operant Conditioning: Reinforcement and Punishment

1. What kind of a consequence is a reinforcer? What does a reinforcer do to the likelihood of the behavior in the future?
2. What is a positive reinforcer? How can it be applied?
3. What is a negative reinforcer?
4. How would a negative reinforcer be applied following a behavior? (Careful: What has to be going on in order to apply a negative reinforcer after a behavior occurs?) What happens to the likelihood of the behavior after this experience?
5. What kind of consequence is punishment? What does punishment do to the likelihood of the behavior in the future?
6. How is punishment different from negative reinforcement?

Learning Objective 7 (pp. 165-166): Disadvantages of Punishment

1. Does punishment actually get rid of behaviors?
2. What are the negative side effects of using punishment listed in the text?
3. How can punishment be used effectively on children?

Learning Objective 8 (pp. 166-167): Discriminative Stimulus — Stimulus Generalization

1. What is a discriminative stimulus? What does the discriminative stimulus signal?
2. What is extinction in operant conditioning? How might extinction be achieved?
3. What is stimulus generalization? What happens when stimulus generalization occurs?

Learning Objective 9 (pp. 167-168): Schedules of Reinforcement

1. What is a schedule of reinforcement?
2. What is continuous reinforcement?
3. What is partial reinforcement? Why is this concept counterintuitive?
4. Which type of reinforcement is most resistant to extinction?
5. Reinforcement schedules vary across which two dimensions?
6. What is the difference between a fixed and a variable schedule of reinforcement?

Learning Objective 10 (pp. 169-171): Applications of Operant Conditioning

1. How has operant conditioning been used in animal training?
2. What is shaping? How is shaping used to train complex behaviors?
3. How has operant conditioning been used to overcome procrastination?
4. How does operant conditioning explain how we acquire superstitions?

Learning Objective 11 (pp. 171-173): Therapeutic Applications of Operant Conditioning —Putting Classical and Operant Conditioning Together

1. What is a token economy? How might a point system be used as a token economy?
2. What is a primary reinforcer?
3. What is a secondary reinforcer? How can something become a secondary reinforcer?
4. What is Applied Behavior Analysis (ABA)?
5. How do classical and operant conditioning interact?
6. What is the two-process theory in conditioning? How might two-process theory apply to a phobia?

Learning Objective 12 (pp. 173-175): Cognitive Models of Learning — Latent Learning

1. How do expectations of the consequences of our actions affect learning?
2. What does the “O” in S-O-R theory stand for?
3. What is latent learning? How did the original research with rats show latent learning?
4. What is mentally represented in a cognitive map?
5. How does the research on latent learning and cognitive maps support the idea that some learning takes place without reinforcement?

Learning Objective 13 (pp. 175-179): Observational learning — Insight Learning

1. What is observational learning? What is a “model” in observational learning?
2. What role can observational learning play in learning aggression?
3. What did Bandura’s “Bobo doll” study demonstrate?
4. Why is the relationship between media violence and aggression complex?
5. What do we need to consider when interpreting the evidence regarding the impact of media violence?
6. What overall conclusion can we draw about the relationship between media violence and aggression?
7. What role do mirror neurons play in observational learning?
8. What is insight? What cognitive experience is shown by an “aha” reaction?

Learning Objective 14 (pp. 179-182): Biological Influences on Learning

1. What is a conditioned taste aversion?
2. How do taste aversions compare to other classically conditioned responses?
3. What is preparedness? How does preparedness fit with evolutionary theory?
4. How does conditioned taste aversion demonstrate preparedness?
5. What is the relationship between preparedness and phobias?
6. What is instinctive drift? How does it interfere with learning?

Learning Objective 15 (pp. 182-185): Learning Fads

1. Why might sleep-assisted learning have seemed to work?
2. Which principles of scientific thinking are most applicable when evaluating learning fads?
3. What is a rival hypothesis to explain claims about accelerated learning techniques?
4. What is discovery learning? How effective is it compared to direct instruction?
5. What is a learning style?
6. What conclusions can be drawn about teaching to specific learning styles?

Learning Objective 16 (pp. 192-197): The Biology of Sleep

1. What is the circadian rhythm?
2. What does melatonin have to do with the circadian rhythm?
3. What are consequences of sleep deprivation?
4. What is jet lag?
5. What does REM stand for? What are the characteristics and function of REM sleep?
6. What does a typical night’s sleep cycle look like?
7. What device is used to monitor a person’s brain waves during sleep?
8. What is lucid dreaming?

**Learning Objective 17 (pp. 197-200): Disorders of Sleep**

1. What is insomnia?
2. What is narcolepsy?
3. What is sleep apnea, and what might cause it?
4. What are night terrors, and who tend to suffer from them most?
5. What is sleepwalking?

**Learning Objective 18 (pp. 200-204.): Dream Theories: Freud — Neurocognitive Perspectives on Dreaming**

1. What wishes are disguised, according to Freud’s wish-fulfillment theory of dreaming?
2. What is the difference between manifest and latent content of dreams?
3. Why is falsifiability a key scientific principle related to Freud’s claims about dreams?
4. What does the activation-synthesis theory of dreams claim about dream content?
5. Which brain regions are associated with dreaming?
6. How does the neurocognitive theory of dreaming compare to the activation-synthesis theory?

**Learning Objective 19 (pp. 204-209): Other Alterations of Consciousness — Mystical Experiences**

1. What are hallucinations?
2. How does the brain react while a person is hallucinating?
3. What is an out-of-body experience?
4. What is a near-death experience?
5. What is a déjà vu experience?
6. How do the key principles of scientific thinking apply to claims of unusual experiences like out-of-body and near-death experiences?
7. How might mystical experiences be stimulated in laboratory studies?

**Learning Objective 20 (pp. 209-213): Hypnosis**

1. What is hypnosis? What is suggestibility?
2. How does hypnosis differ from a sleep state?
3. How do rival hypotheses apply to some of the claims about the value of hypnosis?
4. What is the sociocognitive perspective on hypnosis?
5. What conclusions have researchers reached on age regression and past-life regression therapies?
6. What is dissociation theory and how does it relate to hypnosis?