

Study Guide Psychology 110-011 Exam #2 Professor: Crystal McIndoo

1. Understand the concept of classical conditioning. What is the UCS, UCR, CS, and CR? Be able to apply it to examples. Pg. 119-120

Ans: a form of learning; conditioned and unconditioned stimuli; occurs outside of one's control.

UCS: Unconditioned stimulus that automatically leads to an observable response. Ex: Flu

UCR: Unconditioned response- produced automatically, natural response not learned. Getting sick

CR: conditioned response is produced by the unconditioned stimulus in anticipation of the conditioned stimulus. Ex: salivation. Ex: Not eating the food

CS: neutral stimulus that leads to a conditioned response. Ex: smell of the food

2. What is second-order conditioning? What is simultaneous and backward conditioning? Pg. 123-124 . (pg. 120)

First order- pair the bell with the food that makes you salivate

Second order- Light with the bell

Simultaneous conditioning is pairing the bell and the light at the same time... Bell before the food but backwards is not going to help.

3. What is stimulus generalization vs. stimulus discrimination? Pg. 124-125 125-126
Stimulus generalization: Little Albert's scare of white furry things
Stimulus discrimination: not going to scare him bc he can discriminate btw stimuli.

4. What is extinction and spontaneous recovery? Pg. 126-127

Extinction: Kept ringing the bell no food, extinct of salivation

Spontaneous recovery: The response comes back later if do the experiment again.

5. Know the concept of operant conditioning and the different types of reinforcement (positive/negative) and punishment (positive/negative). Pg. 131-134

6. What are the four types of reinforcement schedules? What kind of response styles do they create? Be able to apply to real life situations. Pg. 135-138

Fixed ratio

Variable ratio

Fixed interval

Variable Interval

7. Know what shaping is and how it is used. Pg. 138-140
Shaping is when reinforcements are delivered for successive approximations to desired response. Point is step by step
8. What is observational learning? Understand Bandura's work in this area. (hint: budo doll) Pg. 141-142 Learning by observing experiences of others.
9. Know the parts of the neuron and what their functions are: cell body, dendrites, and axon. Pg. 150-151 Cell body: soma; contains the nucleus
Dendrites: receive transmission from other cells
Axons: Send information to other cells.
10. Be familiar with the action potential and how it works. What is the all or none law? What is happening at resting potential? How are sodium and potassium ions involved? Pg. 151-153
Resting potential there is a negative charge in the axon. Sodium-potassium pump pushes sodium ions out and hauling potassium ions in. There is more sodium outside at the resting potential.
Action potential: Sodium gates open and let the sodium in and potassium out. Process of communication btw cells: Messages transmit from cell to cell.
11. What is the synapse? What does a neuron do at the synapse? What is a neurotransmitter? Pg. 153-155 figures 5.8-5.9
Synapse: a gap between neurons. Neurotransmitters are released at the synapse.
Neurotransmitter is a chemical that has been stored in the neuron that can activate receptors of other neurons. All or none law: there is an actional potential or there is none!
12. Why is it possible to develop drugs for some behaviors and psychological conditions? (hint: neurotransmitters) pg. 157-158
Dozens of neurotransmitters and each one activate a different set of receptors.
Drug works on the neurotransmitters affecting the receptors. Any drugs that increases or decreases the activity of a type of receptor produces specific effects on behavior.

13. What is Parkinson's disease and what neurotransmitter is thought to be involved?
Understand the role of L-DOPA. Pg. 157

Dopamine imp in Parkinson's disease. Difficulty in initiating voluntary movement, rigidity, tremors. Caused by a gradual decay of axons that release dopamine. L-DOPA increases the production of Dopamine in the brain.

14. How do drugs, like Ritalin help to treat Attention Deficit Disorder (ADD)? Pg. 157

ADD- condition marked by impulsive behavior and short attention span. Prevent pre synaptic neurons from re absorbing the neurotransmitters dopamine and serotonin after releasing them. TOO little dopamine and serotonin. **Ritalin prevents them from being reabsorbed and makes them stay in the system.**

15. What is the central nervous system and peripheral nervous system? Know the subdivisions of each and their role. Pg. 158

Brain and Spinal cord-CNS

PNS- bundles of nerves and axons that send messages btw the spinal cord and the brain.

- SNS- nerves that communicate with muscles and skin
- ANS- stomach, heart, and other organs

Sympathetic System: Fight or flight; heart beat increases, sweat, etc

Parasympathetic System: rest and digest; restores body's energy

16. Know the 4 lobes and their functions. What do they each specialized in? Pg. 160-163 figure 5.17 **Cerebellum**

Parietal-Pain

Occipital-Eyesight

Frontal- movement and memory

Temporal- Hearing

17. How is sensory information sent to the cerebral cortex? Pg-163

Through the THALAMUS

18. Where is the cerebellum and what is it responsible for? Pg. 164 (5.13 159)

It is in the **hymn brain**, back of the brain. Imp for aim or timing behavior.