

Book: Section 3.5, Chapters 5, 6 and 7.

1. How, in general, do synapses work (a repeat question from an earlier exam)? How does the NMDA receptor work? How does the NMDA receptor fit Hebb's rule? What area of the brain is thought to be important for conditioned fear and what evidence is there that an LTP-like mechanism is important for learning of conditioned fear?
2. How might conditioning result in the development of "abnormal" behaviors? What is Konorski's model of appetitive vs. aversive motivational systems? Be able to predict how a given behavior might change if an excitatory CS (signaling either an appetitive or an aversive US) is presented. Apply this model to the counterconditioning.
3. What steps would a behavioral therapist take to eliminate a phobia using counterconditioning? What are the steps involved in eliminating a phobia using systematic desensitization?
4. How would aversion therapy be used to keep a person from smoking or drinking alcohol? Define the events in Pavlovian terminology (e.g., what's the CS, US, etc.). How could discrimination learning and the concept of preparedness limit to effectiveness of aversion therapy?
5. What is the law of effect (and negative law of effect)? Describe the contingencies which make up positive reinforcement, negative reinforcement, punishment and negative punishment. Provide an example of each. What effect will each of these have on the likelihood that the response will occur in the future?
6. What is a primary reinforcer? What is a secondary reinforcer? What is Premack's principle and what is the response deprivation hypothesis? What is needed in order for an event to be reinforcing according these views?
7. Know the information covered in the guest lecture.
8. Know what FR, FI, VR and VI schedules of reinforcement are and the response patterns generated by each (as viewed on a cumulative recorder).
9. What are the two important components that influence "motivation"? What is Hull's definition of "drive"? How does drive influence learning and performance?
10. How does Crespi's experiment challenge Thorndike's Law of Effect? That is, what would the Law of Effect predict and what were the contrary results? What are positive and negative contrast? What is the Yerkes-Dodson law? How does motivation affect learning?
11. Why did some investigators initially feel that "the effects of punishment are temporary"? What factors could lead to an effective or ineffective use of punishment? What features would be incorporated into an ideal punishment procedure? What are some of the negative side effects of punishment?
12. Describe the experimental procedure used for the "frustration effect". How is the theoretical treatment of frustration similar to Hull's concept of drive? What other behaviors can be interpreted as "frustration"?
13. What is the PRE? What is the discrimination hypothesis? What are the features of Capaldi's sequential model? What do the abbreviations mean? Given different patterns of reward and non-reward, could you determine which would generate the most persistent responding during extinction? Based on this model, what type of schedule of reinforcement would most likely lead to the strongest PRE and why?
14. What are the general steps used in "Behavioral Modification"? What strategies are best for establishing a new behavior? What must be considered for maintaining a target behavior? What are the potential harmful effects of reinforcement and what strategies might alleviate these potential harmful effects? What is the principle of minimal force? Think about behavioral contrast in relation to this principle. What is a "behavioral contract"? What is the advantage of using this system? What is observational learning? What is self control? What is the role of reinforcement in each? How would you encourage generalization of stimulus control? How would you encourage discrimination?