PSY 5303: Theories of Learning

The following are potential questions for the midterm exam. Please work *independently* as you develop your answers. All claims should be based on empirical evidence (with appropriate citations). Personal anecdotes are NOT acceptable as evidence. Be very clear when giving definitions, being sure to operationalize all relevant variables.

1. Explain the difference between SS and SR theories of classical conditioning, and explain how Rescorla's (1975) US-devaluation procedure provides support for one of them over the other.

2. The contiguity view of associations goes all the way back to Aristotle, but is most often associated with the work of Pavlov. Explain what this view means in the context of classical conditioning, and explain how Kamin's (1968) blocking experiment demonstrates that contiguity is necessary, but not sufficient, to produce learning.

3. Thorndike argued that reinforcers are simply catalysts to learning, and consequently, are not part of the associative structure between stimulus and response. Explain how *negative contrast effects* form a counterexample to this proposal.

4. Describe the Rescorla-Wagner model for classical conditioning, and explain how it successfully predicts blocking.

5. Much evidence from early verbal learning studies indicated that forgetting is due to retroactive interference (RI). Less clear is whether RI can always be attributed to response competition between early and later word lists, or whether earlier lists are simply unlearned. Describe at least one study providing evidence for the role of unlearning in verbal learning (hint: talk about either Melton and Irwin, 1940, or Barnes and Underwood, 1959).

6. Describe how Glanzer and Cunitz (1966) demonstrated that the serial position curve results from the functioning of two distinct memory stores.

7. Suppose you give participants a task where they are to decide whether two rotated three-dimensional figures are the same. You measure response time (RT) while manipulating the angle of rotation between the objects. What relationship would you expect to find between RT and angle of rotation, and what would this relationship imply about the nature of visual memory representations?

8. Describe the Brown-Peterson paradigm. What does it measure? How does it work?

9. To what did Waugh and Norman (1965) attribute as the source of forgetting in their STM task? Explain.

10. Describe the work of Wickens et al. (1963, 1970) in which he and his colleagues demonstrate release from proactive interference.

11. Describe what is known about how we search through the limited contents of our short term memory.

12. Some researchers believe that people automatically recode visually presented words into an acoustic memory code (i.e., sound based). Provide evidence (with appropriate citations) for this claim.

13. Suppose you were interested in showing that a certain type of math problem relied upon phonological working memory. How would you test such a claim?