

Chapter 8 Review Guide

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Please keep in mind that "**learning theory**" is associated with the psychological perspective of **BEHAVIORISM**.

Learning: a relatively permanent change in an organism's behavior due to experience.

Behaviorism: the view that psychology (1) should be an objective science that (2) studies behavior without reference to mental processes. Most research psychologist today agree with (1) but not with (2).

Associative Learning: learning the two events (2 stimuli in the case of classical conditioning or a response and its consequence in operant conditioning) occur together.

CLASSICAL CONDITIONING

Classical Conditioning: a type of learning in which an organism comes to associate two stimuli. A neutral stimulus that signals and unconditioned stimulus (UCS) begins to produce a response that anticipates and prepares for the unconditioned stimulus. Also called **Pavlovian Conditioning**. **Unconditioned Stimulus (USC):** in classical conditioning, a stimulus that unconditionally--naturally and automatically--triggers an unconditioned response (UCR).

Unconditioned Response (UCR): in classical conditioning, the unlearned, naturally occurring response to the unconditioned stimulus (UCS), such as salivation when presented with food.

Conditioned Stimulus (CS): in classical conditioning, an originally irrelevant or Neutral Stimulus (NS) that, after association with an unconditioned stimulus (UCS), comes to elicit a conditioned response (CR).

Conditioned Response (CR): in classical conditioning, the learned response to a previously neutral conditioned stimulus (CS).

Before Conditioning

UCS (food)=UCR (salivation) & NS (bell)=no salivation

During Conditioning

NS (bell) + UCS (food)=UCR (salivation)

After Conditioning

CS (bell)=CR (salivation)

Respondent Behavior: behavior that occurs as an automatic response to some stimulus; Skinner's term for behavior learned through classical conditioning.

Operant Behavior: Skinner's term for behavior that operates on (affects) the environment, producing consequences.

Law of Effect: Thorndike's principle that behaviors followed by favorable consequences become more likely, and that behaviors followed by unfavorable consequences become less likely.

Operant Chamber (Skinner Box): a chamber containing a "bar" that an animal can manipulate to receive a food or water reinforcer, with associated devices to record the animal's rate of bar pressing.

Shaping: an operant conditioning procedure in which reinforcers guide behavior toward closer and closer approximations of the desired behavior.

Reinforcer: in operant conditioning, any event (consequence) that strengthens the behavior it follows.

****Remember:** During classical conditioning, the neutral stimulus (NS) must be presented *immediately BEFORE* the UCS. After conditioning, the NS will become the conditioned stimulus (CS). Also, keep in mind that the unconditioned response (UCR) and the conditioned response (CR) are often very similar, if not identical to one another.

Acquisition: the initial stage in classical conditioning. The phase associating a neutral stimulus with an unconditioned stimulus so that the neutral stimulus becomes a conditioned stimulus and elicits a conditioned response.

Extinction: the diminishing of a conditioned response. It occurs in classical conditioning when the UCS stops being paired with the CS (e.g., the bell is presented without being followed by the food).

Spontaneous Recovery: the reappearance, after a rest period, of an extinguished conditioned response.

Generalization: the tendency, once a response has been conditioned, for stimuli similar to the conditioned stimulus to elicit similar responses.

Discrimination: the learned ability to distinguish between a conditioned stimulus (e.g., bell) and other stimuli that do not signal an unconditioned stimulus (e.g., telephone ringing).

Biological Predispositions: the understanding that an animal's capacity for conditioning is constrained by its biology (e.g., it is much easier to condition a rat to avoid certain tastes than certain sounds because rats use taste *naturally* to determine if food is "good").

Little Albert: young child who was conditioned to fear rats after a rat was paired with terribly loud noise. **John B. Watson** carried out this study and is considered to be the "father of behaviorism".

OPERANT CONDITIONING

Associative Learning: learning that two events (a response and its consequence in operant conditioning or 2 stimuli in classical conditioning) occur together.

Operant Conditioning: a type of learning in which behavior is strengthened if followed by a reinforcer (positive or negative) and weakened if followed by a punisher.

acquisition of a response but with much greater to resistance to extinction than a continuous schedule of reinforcement.

Fixed-ratio: reinforcement of a response only after a specific number of responses have occurred.

Variable-ratio: reinforcement of a response after an unpredictable number of responses have occurred.

Fixed-Interval: reinforcement of a response after a specific amount of time has elapsed.

Variable-Interval: reinforcement of a response after an unpredictable amount of time has elapsed.

Punishment

Punishment: an event that decreases the behavior it follows.

Positive Punishment: following a response with an aversive stimulus, thus weakening the response (e.g., spanking a child).

Negative Punishment: following a response with the

Positive Reinforcer: a typically pleasurable stimulus that follows a response (e.g., getting a hug). It strengthens and increases the response.

Negative Reinforcer: an aversive stimulus that is removed following a response (e.g., the buzzer stopping once you fasten your seatbelt). It strengthens and increases the response. It is NOT the same thing as punishment.

Primary Reinforcer: an innately reinforcing stimulus, such as one that satisfies a biological need (e.g., food or water).

Secondary (or Conditioned) Reinforcer: a stimulus that gains its reinforcing power through its association with a primary reinforcer (e.g., money).

**Remember: Immediate reinforcers (and punishers) are much more effective than delayed reinforcers (and punishers).

Schedules of Reinforcement

Continuous Reinforcement: reinforcing the desired response every time it occurs.

Partial (intermittent) Reinforcement: reinforcing a response only part of the time. This results in slower

Biological Predispositions

As with classical conditioning, an animal's natural predispositions constrain its capacity for operant conditioning. For example: Pigeons easily learn to flap their wing to avoid a shock or to peck at a bar to obtain food because they *naturally* flap their wings to flee from danger and peck to obtain food. However, they have a hard time learning to flap their wings to obtain food or peck at a bar to avoid a shock.

Contrasting Operant & Classical Conditioning

Please review the resource on classical and operant conditioning. It is extremely important that you clearly understand the similarities and differences in these two conditioning techniques.

removal of a pleasant stimulus, thus weakening the response (e.g., taking away TV privileges).

Problems with Punishment: (1) it is only temporary; (2) it doesn't teach the correct behavior; (3) it can create aggressive behavior in the organism being conditioned and: (4) the organism may become classically conditioned to fear the punisher (through the association of pain (UCS) with the punisher (CS)).

A B C's of Behaviorism

Antecedent: Mom says, "Bobby, clean your room".

Behavior: Bobby cleans his room.

Consequence: Mom gives Bobby a hug.

Cognition & Operant Conditioning

Cognitive Map: a mental representation of the layout of one's environment.

Latent Learning: learning that occurs, but is not apparent, until there is an incentive to demonstrate it

Overjustification Effect: the effect of promising a reward for doing what one already likes to do. The person may now see the reward, rather than intrinsic interest, as the motivation performing the task....and thus, lose interest.

OBSERVATIONAL LEARNING

Observational Learning: learning by observing the behavior of others (e.g., Bandura's experiments with the children and the Bo-Bo Dolls)

Modeling: the process of observing and imitating a specific behavior. (While children clearly learn to model antisocial behavior they see in the media, they can also learn to model prosocial behavior).

Prosocial Behavior: positive, constructive, helpful behavior. The opposite of antisocial behavior.