

AZA/AAZK Animal Training Terms & Definitions

The following list of training terms and definitions is a collaborative effort of the American Association of Zookeepers, Inc. (AAZK) Animal Behavior Management Committee and the American Zoo and Aquarium Association (AZA) Behavior Advisory Group (BAG). It will be used in AZA courses, Principles of Elephant Management (PEM) and Managing Animal Enrichment and Training Programs (MAETP). This list was developed in an effort to promote a common language and facilitate communication among zoo professionals. The list is not exhaustive, but will hopefully provide a basic understanding of commonly used training terms. For additional information and resources, refer to the AAZK website at www.AAZK.org.

Approximation – One small step, in a series of progressive steps that leads to the behavioral goal; see Shaping by Successive Approximations.

Behavioral Criterion – The level or behavioral response that must be met to earn reinforcement.

Bridging Stimulus – A stimulus that pinpoints the exact moment that the behavioral criterion (for that approximation) is met. The “bridge”, as it is often referred to, (often a clicker, whistle or word) communicates to the subject that it has performed correctly and often signals that additional reinforcement is on the way. It “bridges” the gap between the time the correct response is given and the time the additional reinforcer is delivered. It is a stimulus that can act as both an SD (See cue or discriminative stimulus) and a secondary reinforcer.

Capture (Scan) – The process of placing a behavior that is initiated by the subject under stimulus control by reinforcing the behavior as it spontaneously occurs.

Classical Conditioning – A basic form of learning in which a neutral event initially incapable of evoking certain responses acquires the ability to do so through repeated pairing with other stimuli that are able to elicit such responses. This type of conditioning does not involve any voluntary choices by the animal; the response or reaction is reflexive (e.g., blinking or salivating) and not dependent on operant learning.

Continuous Reinforcement – A schedule of reinforcement in which the desired or correct responses are reinforced every time they occur. Trainers typically use a continuous reinforcement schedule when the animal is in the process of learning a new behavior.

Conditioned Stimulus (CS) – An initially neutral stimulus that will elicit a specific response as a result of repeated pairing or learned association between that stimulus and that response. A discriminative stimulus (SD), or cue is a conditioned stimulus.

Desensitization - The act of pairing a negative, or aversive event, with positive reinforcement until the event loses its aversive quality. The resulting behavior can be maintained through the use of positive reinforcement.

Discriminative Stimulus (SD) or Cue – A stimulus that precedes a behavior, signaling that a specific response will be reinforced if emitted correctly. The result is that the stimulus will consistently elicit only that particular response.

Extinction – A method of eliminating a behavior by no longer reinforcing it.

Extinction Burst - A short-term increase in the frequency and intensity of a response during the extinction process, due to a lack of reinforcement.

Generalization – The lack of discrimination between two stimuli. An animal that has been conditioned to respond to a specific stimulus may offer the same response in the presence of a similar stimulus.

Habituation – The declining or waning of a behavior as the result of repeated presentation of the stimuli that initially caused the behavior; the process of gradually getting an animal used to a situation that it normally reacts to, (i.e. avoids or reacts adversely to) by prolonged or repeated exposure to that situation.

Incompatible Behavior – A behavior that is impossible to perform at the same time as another specific behavior.

Intermittent Reinforcement - A schedule of reinforcement in which not every correct response is reinforced. Any schedule of reinforcement that is not continuous (i.e. variable ratio, variable interval, fixed ratio, fixed interval)

Jackpot or Bonus – A positive reinforcer that is much larger than usual, and usually unexpected.

Magnitude of Reinforcement – The size and duration of the reinforcement following a behavior.

Negative Reinforcement – A process in which a response increases in frequency due to the removal of an aversive stimulus from the animal's environment.

Observational Learning – A type of learning in which one animal learns from observing the behavior and consequences of another's actions.

Operant Conditioning – A type of learning in which behavior is determined by its consequences. (A behavior is strengthened if followed by reinforcement [positive or negative] and diminished if followed by punishment). The animal “operates” on the environment, leading to a desired outcome.

Primary Reinforcer or Unconditioned Reinforcer – A reinforcing event that does not depend on learning or previous experience to achieve its reinforcing properties (e.g. biological need: food, water, warmth, sex).

Positive Reinforcement – The process of following an action or response with something that the subject wants, thereby causing an increase in the frequency of occurrence of that behavior.

Punishment – The application of a stimulus or the removal of a stimulus that occurs after a behavior it is meant to affect, and causes a decrease in the frequency of that behavior.

Regression- The state of a conditioned behavior reverting back to a previous stage in the learning process.

Reinforcer – Anything (either the application of a stimulus or the removal of a stimulus) that occurs in conjunction with a behavior that tends to increase the likelihood that the behavior will occur again.

Schedules of Reinforcement – The conditions or parameters under which reinforcement is delivered; see continuous reinforcement and intermittent reinforcement.

Secondary Reinforcer or Conditioned Reinforcer – An object or event (stimulus) that initially may mean nothing to the animal but becomes reinforcing through pairing with a primary reinforcer or other conditioned/established reinforcer.

Selective or Differential reinforcement – The act of reinforcing specific criteria of desirable responses to shape a specific behavior; the reinforcing of selected responses of higher quality to improve performance.

Shaping by Successive Approximations – An operant conditioning method of taking an action or tendency and shifting it, one approximation, or step, at a time, toward the final behavioral goal; building of a behavior by dividing it into small increments or steps and then teaching one step at a time until the desired behavior is achieved. Steps become a series of intermediate goals.

Stimulus – Anything that elicits a physiological or behavioral response; see conditioned stimulus.

Stimulus Control – A behavior is said to be under stimulus control if it meets 3 conditions: 1) It is immediately offered following the SD; 2) It is offered only when preceded by the correct SD; 3) It is not offered in the presence of another SD.

Superstitious Behavior – A behavior that the animal offers during the training of another behavior but is unrelated to the behavior being trained. Because the unrelated behavior is inadvertently reinforced with the desired behavior, the animal perceives it as a necessary component of the behavior being trained and therefore necessary to receive reinforcement.

Time-out – A mild type of punishment in which the opportunity to obtain reinforcement is removed, immediately following an inappropriate or undesirable response and is generally short in duration.

References:

Pryor, K. [1999]. Don't Shoot The Dog [rev. ed.]. Bantam Books, New York.

Ramirez, K. [1999]. Animal Training. Shedd Aquarium, Chicago.