Sungjin Park
Professor Stephen Maret
PSY101: General Psychology: OA
21 Mar 2023

Short Answer Unit 4

2. Name and explain the four reinforcement schedules.

Fixed interval reinforcement schedule

It refers to providing reinforcement for actions that are performed again after a fixed time has elapsed after receiving reinforcement. The time between the reinforcement and the reinforcement is called the F, and no reinforcement is provided for the actions taken during the interval, but only the actions taken at the end of the interval are provided with reinforcement. In this case, the subject of the action becomes aware of the gap and shows an action that seems to check the time to do the action that can be strengthened.

For example, if you clean well, you can see that when you give pocket money at 8 p.m., you check the time in the evening to get pocket money, and the frequency of cleaning immediately after receiving pocket money decreases sharply.

Variable-interval reinforcement schedule

This is the case when the time interval that gives the reinforcement is fluid. In the case of fixed interval reinforcement, the behavior frequency is low immediately after reinforcement because the subject of the action can predict the time when reinforcement is given, and if it is close to the expected time of reinforcement, the behavior frequency increases rapidly. It refers to changing the time interval that gives reinforcement to prevent this. If the fixed interval was 5 minutes, variable-interval reinforcement schedule(V) means that the interval varies, but on average, it is strengthened to 5 minutes. In this case, the time interval is unpredictable, resulting in an even frequency of behavior.

Fixed ratio reinforcement schedule, FR

A fixed ratio reinforcement schedule, FR, is a plan that gives a reinforcement when a certain number of target actions occur. Reinforcement is not given to actions that do not correspond to a predetermined number of times, and reinforcement is provided when the predetermined number of times is reached, and the target behavior is steadily continued to achieve 100 or 200 times. For example, if you work in a factory packing, if you give 5 minutes of rest for every 100 packages, you'll see steady behavior during 100 packages, and after 5 minutes of rest, you'll see steady behavior to meet the target number again.

Variable-ratio reinforcement schedule, VR

Variable-ratio reinforcement schedule, VR, refers to an unexpected change, not a certain number of times after a reinforcement occurs until the next reinforcement occurs. However, it does not occur randomly or unconditionally, but it occurs while maintaining the average value. For example, if a salesman visits 10 houses and sells an average of one item, it doesn't matter what number of houses they sell. Salesmen don't know which houses they'll sell, so they'll do their best to sell them in every house they visit.

3. List and explain the steps of the modeling process in the order in which they occur.

Attentional processes

As the first step in observational learning, attention must be paid to the model in order for any behavior to be learned through observation.

Retention processes

It is that human memory should have some way of observing the model and then remembering the model's behavior in a symbolic form, because it fades or disappears after some time.

Motor reproduction processes

The third basic element related to observational learning is to convert symbolically encoded memories into appropriate external behavior.

Motivational processes

Observation learning can be learned only by observation without reinforcement, and observations can be reproduced. At this time, whether to perform what is observed or not is affected by motivation.

4. Name and explain the four means of modifying behavior discussed in operant conditioning.

Positive Reinforcement

When the desired action is done, it is to add (+) your favorite stimulus to make the action more likely.

Negative Reinforcement

When you give a stimulus you don't like and the desired action is done, you remove (-) the stimulus to make the action happen.

Positive Punishment

When an unwanted action is taken, it is to add (+) a stimulus that you don't like, which leads to the result that the action doesn't occur.

Negative Punishment

When an unwanted action is taken, it removes (-) the stimulus you like, leading to the result that the action does not occur.

12. What did the results of the Little Albert experiment indicate about human response?

A nine-month-old infant named Albert was asked to bring various animals close to him to find out his fear.

Dogs, cats, rabbits, white mice, etc...Albert doesn't care about animals, but he shows interest and tries to touch them. After this, he makes a loud noise by tapping the iron rod with a hammer behind him, and Albert cries in surprise and becomes terrified by the loud hammer noise.

Two months later, when Albert, 11 months old, showed interest in the white mouse and tried to touch it, he struck a loud hammering noise to surprise him. It was repeated 7 times after 2 times every week.

Five days later, Albert expressed his fear, bursting into tears just at the sight of the white mouse he had touched and played with before

Furthermore, by generalizing the hyperdry reaction, he expressed fear even in white rabbits, similar to white mice, or Santa Claus with white beards.

21. Summarize how Ivan Pavlov conducted his study of classical conditioning.

Pavlov focused on the mental secretion caused by food stimuli far from animals in his research on the regulation of reflection of digestive gland activity and conducted experiments on salivary gland properties by creating fistulas in the salivary gland tube.

Pavlov noticed that dogs do not just drool in front of food, but generally begin to drool in front of the person who feeds them. If you sound a buzzer or metronome before giving food, the dog later associated the sound with the food and drooled only by sound stimulation. Based on Sechenov's hypothesis that mental activity has a reflexive nature, Pavlov concluded that even here, non-permanent but temporary or conditional reflexes are relevant.

31. Describe the field of cognitive psychology.

Cognitive psychology involves the study of all internal mental processes occurring in the brain, including perception, thinking, memory, attention, language, problem solving, and learning. Learning more about how people think and process information helps researchers gain a deeper understanding of how the human brain works. It also allows psychologists to develop new ways

to help people cope with psychological difficulties.

34. Describe Raymond Cattell's theory of intelligence.

Regardless of experience or education, Cartel classified intelligence into liquidity intelligence that represents the innate individual's potential and crystalline intelligence that includes knowledge and skills through cultural experience.

fluid intelligence

• It is an intelligence developed by genetic and neurophysiological effects and is an intelligence that develops in proportion to the maturity of the brain and central nervous system.

• The development of fluid intelligence increases until adolescence, but declines together after adulthood when physiological development declines.

• Speed, mechanical memorization, perceptual power, and general reasoning power belong to fluid intelligence.

Crystalized intelligence

• It is an intelligence developed by environmental, empirical, and cultural influences.

• It can continue to develop after adulthood, but it varies depending on the environment. It is related to lifelong learning.

• Language understanding, problem-solving skills, common sense, and logical reasoning skills belong to decisive intelligence.

44. Compare and contrast divergent thinking with convergent thinking.

While Divergent Thinking is a thinking process that selects data, explores information, and uses imagination to find various solutions, Convergent Thinking is a thinking process that uses knowledge, wisdom, and insight to determine the most appropriate solution to solve a problem. This does not mean that planning thinking means spreading thinking. If diffuse thinking refers to diverse and flexible thinking, breaking away from stereotypes, convergent thinking refers to

systematic and logical thinking that is clearly refined. After all, planning thinking is possible when integrating diffuse thinking and convergent thinking.

Diffusive thinking is good when looking for data, and convergent thinking is good when organizing data. If diffuse thinking is a process of exploring as many possibilities as possible, it is important for convergent thinking to focus on making the image as clear as possible.

46. Compare and contrast learning disabilities and intellectual disabilities.

Learning disabilities and intellectual disabilities are the differences in intelligence.

Learning disabilities are normal categories of intelligence and intellectual disabilities are low in intelligence.

Both learning disabilities and poor learning are normal categories of intelligence, but learning disabilities are students who are bound to be unable to learn in a specific area for various reasons (psychodynamic, temperamental, cognitive, etc.).

Likewise, even if you cannot study, intellectual disabilities are low in intelligence, learning disabilities are due to disabilities in the learning area, and poor learning is due to accumulated sluggishness.