

# 5. Learning

**Now we will study the different processes of learning.**

**This section will cover classical conditioning, observational learning and operant conditioning as well as cognitive processes that occur during learning.**

**5.1. Biological bases**

**5.2. Classical conditioning**

**5.3. Cognitive process in learning**

**5.4. Observational learning**

**5.5. Operant conditioning**

# **5.1 Biological Bases**

- **Unlearned behaviors one is born with**
  - **reflexes- motor or neural reaction**
  - **instincts- innate behaviors triggered by events**
  - **help organism adapt to environment and survive**

## **5.2 Classical Conditioning**

- **Ivan Pavlov- physiologist**
- **Unconscious**
- **Process of learning in which associate stimuli and, consequently, anticipated events**





- **Unconditioned stimulus**→  
**unconditioned response**
- **Neutral stimulus becomes**  
**conditioned stimulus**
- **Conditioned stimulus**→  
**conditioned response**

- **Expectation**

- **unconditioned stimulus will show up after conditioned stimulus**

- **Extinction**

- **conditioned stimulus present without unconditioned stimulus**
- **conditioned response goes away**

## **5.3 Cognitive Process of Learning**

- **Complex interaction of conscious and unconscious processes**
- **Associative learning**
- **Non-associative learning**
  - **habituation**
  - **sensitization**

- **Attention**
- **Sensory register- holds information for a few seconds**
- **Short-term and long-term memory**
- **Encoding and retrieval of information**

## **5.4 Observational Learning**



- **Modeling**
  - watching what others do are say and mimicking behavior
- **Learning occurs vicariously**
- **Bandura**
  - attention, retention, reproduction, motivation
  - prosocial and antisocial effects



## **5.5 Operant Conditioning**

- **B.F Skinner- building off of classical conditioning**
- **Learning an association between a stimulus and response that follows it**
- **Based on Law of Effect**
  - **positive consequence more likely to repeat behavior**



- **Reinforcement**

- **positive- something is added to increase likelihood of behavior**
- **negative- something is removed to increase likelihood of behavior**

- **Punishment**

- **positive- something is added to decrease likelihood of behavior**
- **negative- something is removed to decrease likelihood of behavior**

- **Reinforcement schedule**
  - **ratio schedule- how many times response has been made**
  - **interval schedule- amount of time between reinforcements**
  - **Fixed or variable**