PERCEPTION PROCESSES

PERCEPTUAL SPAN

- How much can we experience at a brief exposure is called perceptual span.
- It is an early component in the processing of information.
- Sensory Store: it is capable of quick decisions based on brief exposure of events.
- Iconic Storage
- Echoic Storage
- Function of Sensory Stores

PERCEPTUAL SPAN

- Iconic Storage

The persistence of visual impressions and their brief availability for further processing is called iconic memory.

- Echoic Storage

Echoic storage allows us additional time to hear an auditory message.

- Function of Sensory Stores
  - Extract important and necessary information
  - Make available for later processing

PERCEPTUAL LEARNING & DEVELOPMENT

- **Perceptual learning** is the process by which the ability of sensory systems to respond to stimuli is improved through experience. Perceptual learning occurs through sensory interaction with the environment as well as through practice in performing specific sensory tasks.
- The changes that take place in sensory and perceptual systems as a result of perceptual learning occur at the levels of behaviour and physiology.
- Examples of perceptual learning include developing an ability to distinguish between different odours or musical pitches and an ability to discriminate between different shades of colours.

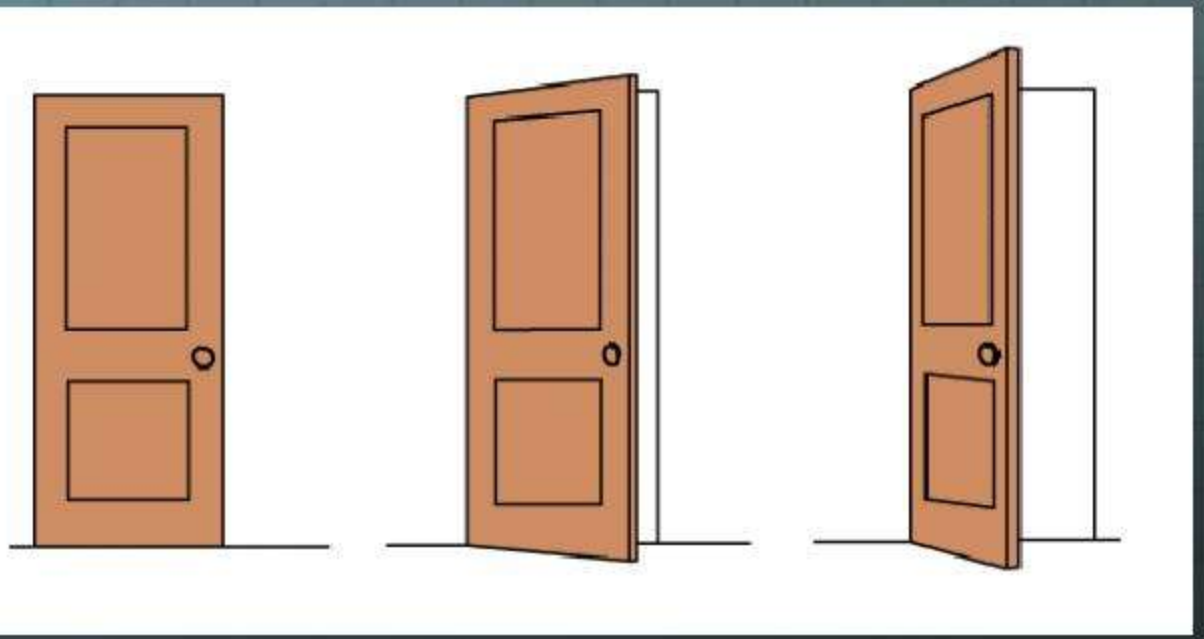
- Perceptually practiced individuals learn what aspects of the stimulus to attend to try harder to consciously distinguish between different kinds of stimuli.
- Perceptual learning is acquired by all individuals over time.
- is the process of learning improved skills of perception. These improvements range from simple sensory discriminations (e.g., distinguishing two musical tones from one another) to complex categorizations of spatial and temporal patterns relevant to real-world expertise (e.g., reading, seeing relations among chess pieces, knowing whether or not an X-ray image shows a tumor). Sensory modalities may include visual, auditory, tactile, olfactory, and taste.

- Perceptual learning forms important foundations of complex cognitive processes (i.e., language) and interacts with other kinds of learning to produce perceptual expertise.
- Underlying perceptual learning are changes in the neural circuitry. The ability for perceptual learning is retained throughout life.

PERCEPTION OF SHAPE

- When we know that the object is a certain shape ,we tend to perceive it as the same shape, regardless of the viewing angle. We have learned to make corrections in our perception dependent on the angle from which we observe.
- where a familiar object keeps its perceived shape despite major changes in retinal stimulation due to changes in its orientation.

Shape Constancy



PERCEPTION OF SPACE

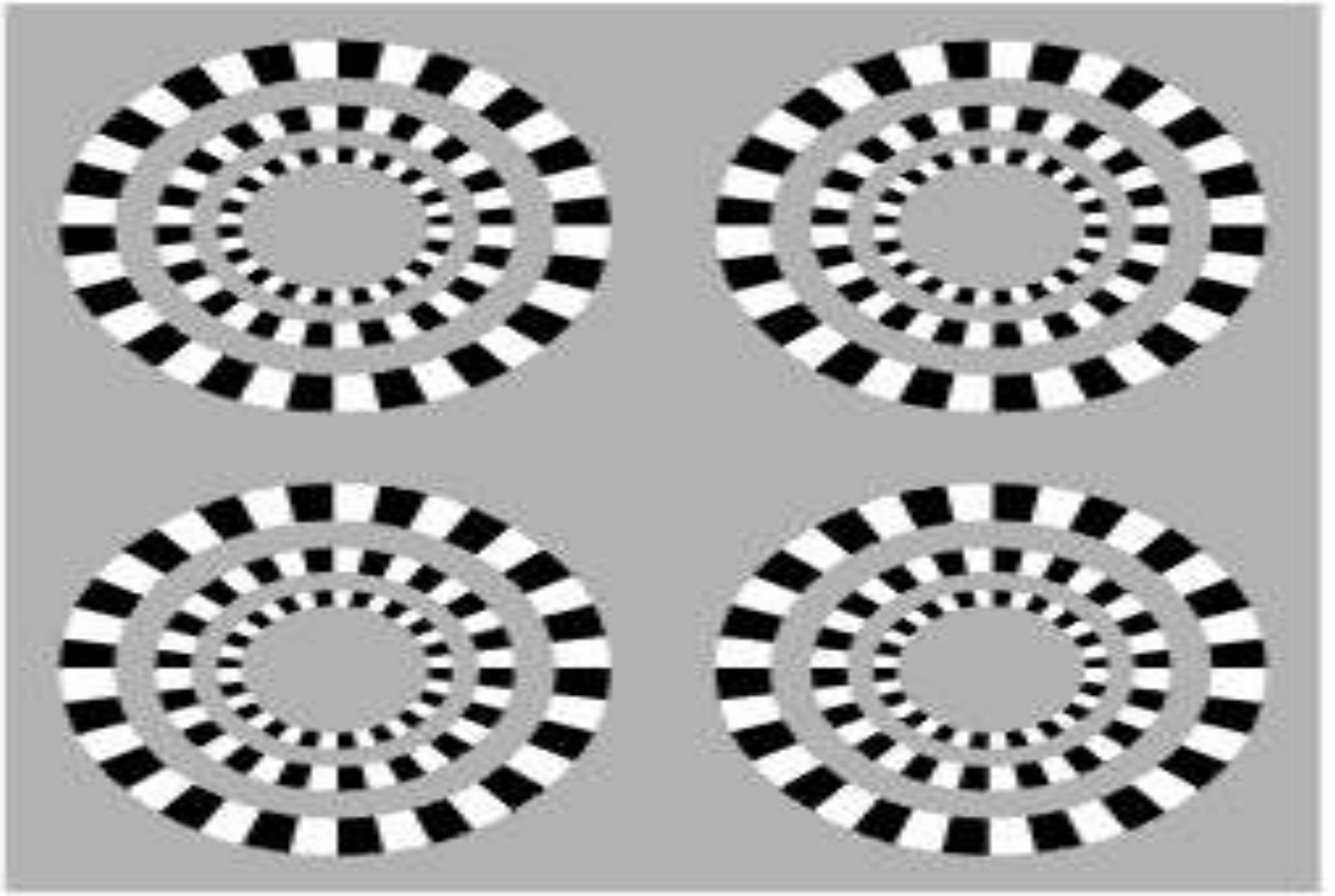
- **Space perception**, process through which humans and other organisms become aware of the relative positions of their own bodies and objects around them.
- **Space perception** provides cues, such as depth and distance, that are important for movement and orientation to the environment.

PERCEPTION OF MOVEMENT

- **Movement perception**, process through which humans and other animals orient themselves to their own or others' physical movements. Most animals, including humans, move in search of food that itself often moves; they move to avoid predators and to mate. Animals must perceive their own movements to balance themselves and to move effectively; without such perceptual functions the chances for survival would be sharply reduced.

- It has two types:
- Real Movement
- Apparent Movement
- Real Movement: The perception of the actual movement of objects in the world is termed as “real motion/movement “perception”.
- Apparent Movement: It is movement perceived in the absence of physical movement of an image across the retina. This can be produced by a rapid succession of motionless stimuli that minimize the changes that occur in real movement.

APPARENT MOVEMENT



1. The persistence of visual impressions and their brief availability for further processing is called-----.

- **iconic memory**.
- Echoic Storage .
- Short term memory.
- long term memory.

2. --------- allows us additional time to hear an auditory message.

- iconic memory.
- **Echoic Storage** .
- Short term memory.
- long term memory.

3. **-------** is process through which humans and other animals orient themselves to their own or others' physical movements.

- Shape perception.
- **Movement perception.**
- Short term memory.
- long term memory.

4. Perceptual learning occurs through sensory----------with the environment as well as through practice in performing specific sensory tasks.

- Relation.
- association
- **interaction**.
- combination

5. The ability for perceptual learning is ------throughout life

- **retained**.
- not retained

a) What is Perceptual Span?

b) Compare and contrast echoic storage and iconic storage.

c) Define Perceptual learning.

d) How does movement perception help us in survival. Explain with examples.

e) Illustrate space perception.