

SENSORY, ATTENTIONAL & PERCEPTUAL PROCESSES

RAPID REVISION

**IN 20
MINUTES**





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Class 11 Psychology Chapter 4

Sensory, Attentional & Perceptual Processes —

1. Knowing the World

Knowledge of the world depends on three interrelated processes:

Sensation → Attention → Perception

Together, these processes help us understand our environment and are part of **cognition**.

2. Nature and Varieties of Stimulus

Stimuli come from both **external** and **internal** environments.

External sense organs:

- Eyes
- Ears
- Nose
- Tongue
- Skin

Internal senses:

- Kinesthetic sense:** Gives information about body position and movement.
- Vestibular sense:** Maintains body balance and posture.

3. Sensation (Sense Modality)

- ❖ Sensation is the **first experience** produced by a stimulus.
- ❖ Every sense organ is specialised for a particular type of information (called **sense modality**).
- ❖ Sense organs have **functional limitations** and respond only within a certain range.

Important Terms

- **Absolute Threshold (AL):** Minimum intensity required to detect a stimulus.
- **Difference Threshold (DL):** Minimum difference required to notice a change between two stimuli.

4. Attention

Attention is the process of **selecting relevant information** from many stimuli.

Properties

- **Alertness:** Readiness to respond.
- **Concentration:** Focusing on one stimulus.
- **Search:** Looking for a particular object.
- **Focus:** Centre of attention.
- **Fringe:** Stimuli present in awareness but not at the centre.

Types of Attention

- ❑ Selective Attention
- ❑ Divided Attention
- ❑ Sustained Attention (Vigilance)

Theories of Selective Attention

- ❖ Filter Theory – Broadbent
- ❖ Filter-Attenuation Theory – Treisman
- ❖ Multimode Theory – Johnston & Heinz

Span of Attention

According to **Miller**, average span of attention is **7 ± 2 items**.

ADHD

A behavioural disorder characterised by:

- Inattention
- Hyperactivity
- Impulsiveness

5. Perception

Perception is the process of **recognising, organising and interpreting sensory information** to give it meaning.

Processing Approaches

- **Bottom-Up Processing:** Parts → Whole
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- **Top-Down Processing:** Whole → Parts
(uses previous knowledge and experience)

6. The Perceiver

Perception is influenced by:

- ❖ Motivation
- ❖ Expectations (Perceptual Set)
- ❖ Culture
- ❖ Past Experiences
- ❖ Cognitive Style

Cognitive Styles

- **Field-Dependent:** Holistic perception
- **Field-Independent:** Analytical perception

7. Principles of Perceptual Organisation (Gestalt Theory)

Main Idea: *The whole is greater than the sum of its parts.*

Figure-Ground Principle

We separate an object (**figure**) from its background (**ground**).

Gestalt Laws

- Proximity
- Similarity
- Continuity
- Smallness
- Symmetry
- Surroundedness
- Closure

Monocular Cues

Meaning: Monocular cues help us judge **distance and depth using only one eye.**

Example: Faraway mountains look **smaller** than nearby trees.

Binocular Cues

Meaning: Binocular cues help us judge **distance and depth using both eyes.**

Example: Catching a ball by correctly judging **how far it is.**

8. Perception of Space, Depth and Distance

Monocular Cues (One Eye)

- Relative Size
- Interposition
- Linear Perspective
- Aerial Perspective
- Light & Shade
- Relative Height
- Texture Gradient
- Motion Parallax

Binocular Cues (Both Eyes)

- Retinal Disparity
- Convergence
- Accommodation

9. Perceptual Constancies

We perceive objects as stable despite changes in sensory input.

Types

- **Size Constancy**
- **Shape Constancy**
- **Brightness Constancy**

10. Illusions

Illusions are **misinterpretations of sensory information**.

Types

- Universal Illusions
- Personal Illusions

Important Examples

- Müller-Lyer Illusion
- Vertical-Horizontal Illusion
- Apparent Movement (Phi Phenomenon)

11. Socio-Cultural Influences on Perception

Perception is influenced by:

- Culture
- Learning
- Environment
- Previous Experiences

People from different cultures may perceive the same stimulus differently.

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