M.A Psychology Semester-2 (CC5- Cognitive Psychology) Attention and its types, Nature and determinants of Attention

Dr. Md. Iftekhar Hossain, Professor and Head, Department of Psychology, Patna University

### Attention and its types, Nature and determinants of Attention

Attention can be defined as an internal cognitive process by which one actively selects environmental information (sensation) or actively processes information from internal sources (visceral cues or other thought processes). It is the process of concentrating on specific features of the environment, or on certain thoughts or activities. This focusing on specific features of the environment usually leads to the exclusion of other features of the environment. To perceive an object, to think in relation to it, to solve some problem in relation to it, to keep in mind it and the like is not possible without attending to it.

Process in Attention: There are three processes in attention.

(A)Attention Getting- Attention getting is the initial orientation or alerting to a stimulus. Although it can be considered an automatic act, it requires complex active thought processing. Attention getting depends on the qualitative nature of the stimulus. The stimulus must be strong enough to elicit a response.

(B)Attention Holding- Attention holding is the maintenance of attention when a stimulus is intricate or novel. Stimuli that hold our attention must be both new and complex in order to encourage information processing. Attention holding is measured by how long one engages in a cognitive activity involving that stimulus.

(C)Attention Releasing- Attention releasing is the releasing or turning off of attention from a stimulus. Attention releasing can occur for a variety of reasons. A person can fatigue physically or mentally requiring release of attention. Arousal level can decrease, therefore different types of stimuli becomes required to maintain an alert and active state.

Eysenck & Keane (2000) believed that attention is affected by:

- Task difficulty: as it is harder to perform two different tasks.
- **Practice:** if one (or both) tasks are well practiced then they are easier to perform.
- **Similarity:** similar tasks are harder to perform simultaneously due to interference, which is most common when they use the same modality, processing stage or response mechanism.

### Nature of Attention: Following are the nature of Attention-

- 1. Attention is a cognitive process.
- 2. It is an active process, involving provide and take with the environment.
- **3.** Attention is continuous.
- **4**. Attention involves selectivity.
- **5.** Attention is always fluctuating and shifting, our interest and needs are changing and they affect the process of attending.
- **6.** Attention is a form of consciousness that makes information rationally accessible to the subject.
- **7.** There can be no attention without interest or need.
- 8. It increases the clarity of the stimuli for perception.
- 9. Attention as a personal level activity.

**10.** Attention is a process of adjustment. Through attending the individual adjust himself inner needs or to outer stimuli.

- **11.** Attention helps to keep in mind experiences more accurately and fully.
- 12. Attention increases efficiency. It helps people to get ready to meet any situation.
- **13.** Attention improves sensory discrimination.
- **14.** It is a motivational process.
- **15.** Attention is dynamic in nature.
- **16.** It is Purposive.

Determinants of Attention: There are two types of determinants of Attention-

- (a) Internal factors
- (b) External factors

# (a) Internal factors- These factors are based on individuals. These are:

- 1. Interest
- 2. Motives
- 3. Attitude
- 4. Mind set
- 5. Aim/ goal
- 6. Attitudes
- 7. Basic needs (food deprivation)
- 8. Curiosity
- 9. Education and training
- **10.** Emotion

- **11.** Habit or practice
- **12.** Individual's internal desire and needs
- 13. Meaning and understanding (traditional doctors and treatment)
- **14.** Mental set
- **15.** Mood
- 16. Past experiences
- 17. Purpose
- 18. Social motives
- 19. Temperament
- **20.** Training

### (b) External factors-

- 1. Nature of the stimulus
- 2. Movement of the stimulus
- 3. Contrast and variety of the stimulus
- 4. Intensity and size of the stimulus
- 5. Repetition of stimulus
- 6. Change of the stimulus
- 7. Rareness of the stimulus
- 8. Novelty of the stimulus
- 9. Strangeness of the stimulus
- **10.** Isolation of the stimulus

## Types of Attention: There are four types of attention

- **1.** Sustained Attention
- 2. Selective or Focused Attention
- **3.** Divided Attention
- 4. Executive Attention

Selective attention	Focusing on specific aspect of experience that is relevant while ignoring others
Divided attention	Concentrating on more than one activity at a time
Sustained attention	Maintain focus on selected stimulus over prolonged period; called <u>vigilance</u>
Executive attention	Focus on action planning, goals, errors and compensation, monitoring, and unknown

**1. Sustained Attention-** It is also known as vigilance. It is the ability to focus on a particular stimulus for a long period of time. The ability to perform tasks that require sustained attention impacts various activities our life. Reading an article in the newspaper, the ability to concentrate on the reading activity for a long enough period of time is highly dependent on sustained attention. Individuals who struggle with sustaining their attention over long periods of times are at risk of not finishing tasks, which will likely interfere with learning.

**2. Selective or Focused Attention-**Selective attention is the process by which we select some stimuli for further processing while ignoring others. In vision, the primary means of directing our attention are eye movements. Most eye fixations are based on the most informative parts of the stimulus. Selective attention also occurs in audition. One can selectively listen by using cues like the pitch and rhythm of the sound and the voice of the speaker.

**3. Divided Attention-** It is the ability to process two or more responses or react to two or more different demands simultaneously. It is also referred as the multitasking ability. For example, Talking with someone while messaging in the phone.

**4. Executive Attention-** It is also called conflict monitoring. Executive attention is the goal directed monitoring of task relevant stimuli in comparison with task irrelevant stimuli. It depends on the need and demand of the situation.