Psychophysics Threshold

UNIT 3

CHAPTER 2

Threshold - the limit below which a stimulus or difference between two stimuli ceases to be perceptible (noticeable)

Threshold is the smallest stimulus that can be perceived.

Threshold is defined as the minimum amount of energy required for a person to detect or discriminate a stimulus.

SUB – LIMINAL – stimulus that are below threshold intensities and hence cannot be detected.

Threshold are of 3 types

Absolute threshold
Difference threshold
Terminal threshold

Absolute threshold or detection threshold or Reiz limen

- " the lowest level of stimulus that an organism can detect"
- " absolute threshold is the smallest amount of stimulus energy necessary for an observer to detect the stimulus"
- J.F. HERBERT
- GRAPH
- CLASSICAL THRESHOLD THEORY – there is a sharp step between detect and cannot detect

MODERN THEORY OF ABSOLUTE THRESHOLD

"ABSOLUTE THRESHOLD has been redefined as the level at which a stimulus will be detected 50% of the times"

Graph – is gradual rather than abrupt

HOW TO DETECT ABSOLUTE THRESHOLD

1. METHOD OF LIMITS
2. METHOD OF CONSTANT STIMULI

DIFFERENCE THRESHOLD OR DISCRIMINATION THRESHOLD OR JUST NOTICABLE DIFFERENCE (jnd)

- " difference threshold is the minimum difference between 2 stimuli that a person can detect 50% of times"
- JND is the smallest difference between 2 stimuli that our sensory system can detect 50% of times
- 2 stimuli – standard stimulus , comparison stimulus
- ERNEST WEBER and GUSTAV FECHNER
- HOW TO FIND jnd
- 1.METHOD OF CONSTANT STIMULI

TERMINAL THRESHOLD

- Terminal threshold is the level beyond which a stimulus is no longer detected. This is the point where the stimulus is so strong that the sensory receptors no longer detect the stimulus. Such types of stimulus may cause pain or damage to the receptors. The terminal threshold being approx. 20,000 hertz for a person with normal hearing