



Sensation & Perception
Introduction to Psychology

Ram Manohar Singh
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Sensation

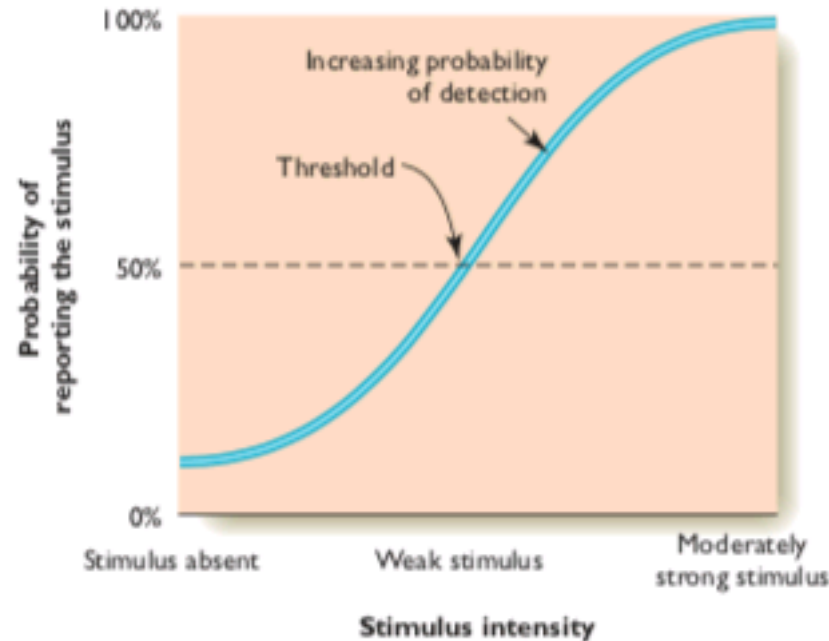
- ❖ The study of **sensation** is concerned with the initial contact between organisms and their physical environment .
- ❖ **Stimuli**
 - Energies from the world around us that affect us in some way .
- ❖ **Sensory receptors**
 - Located in our eyes, ears, nose, tongue, and elsewhere, are responsible for accomplishing coding task .
- ❖ **Transduction**

Sensory Thresholds and Signal Detection



❖ Absolute sensory threshold

- The intensity at which a given individual can detect a stimulus 50% of the time.



- The range of physical stimuli that we and other species can detect seems to be designed in a way that maximizes survival potential.

Complexities in absolute threshold



❖ Homeostasis

- sensitivity to stimuli changes from moment to moment

❖ Motivational factors

- Costs
- Rewards

❖ Signal Detection Theory

- A theory suggesting that there are no universal absolute thresholds for sensations.
- Detection of a stimulus depends on its physical energy and on internal factors such as the relative costs and benefits associated with detecting the stimulus.

Difference Thresholds

- ❖ Amount of change in a stimulus required for a person to detect
- ❖ **Just noticeable difference (JND)**
 - The smallest amount of change in a physical stimulus necessary for an individual to notice a difference in the intensity of a stimulus.
- ❖ **Subliminal Perception**
 - *A stimulus can influence our behavior even when it is presented so faintly or briefly that we do not perceive it consciously.*
- ❖ *Phantom limb*

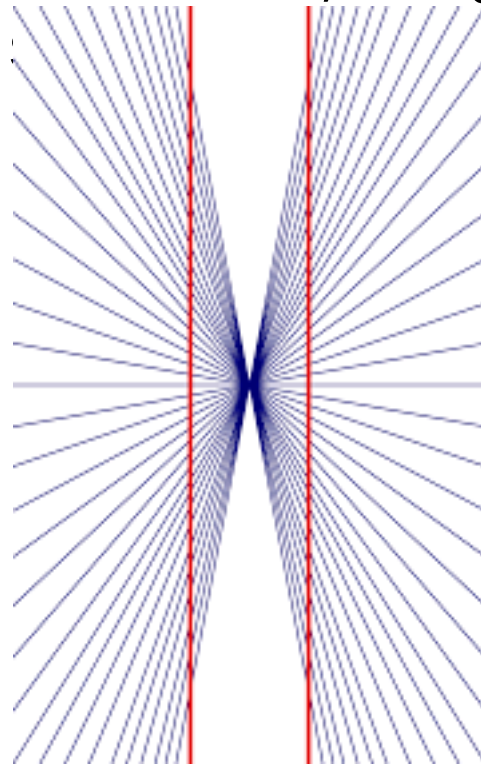
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- ❖ Vision
- ❖ Hearing
- ❖ Touch
- ❖ Taste
- ❖ Smell
- ❖ Kinesthetic
- ❖ Vestibular senses

Perception

- ❖ The way in which we *select, organize, and interpret* sensory input to achieve a grasp of our surroundings.
- ❖ It is the active selection, organization, and interpretation of



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❖ Cocktail party phenomenon

❖ Perceptual organization

- In order to make sense of sensations, people must *learn* to recognize objects, to read clocks, numbers, and letters, and to judge sizes and distances
- Gestalt principles : Whole is more than sum of its parts

Figure and Ground

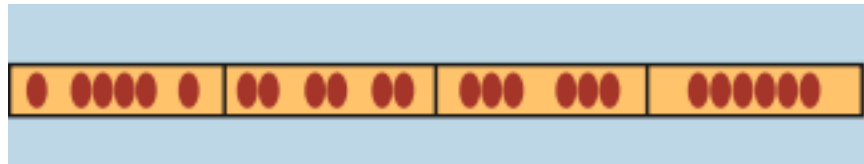
- ❖ Our tendency to divide the perceptual world into two distinct parts: discrete figures and the background against which they stand out
- ❖ we *selectively attend* to certain aspects of our environment while relegating others to



Gestalt principles

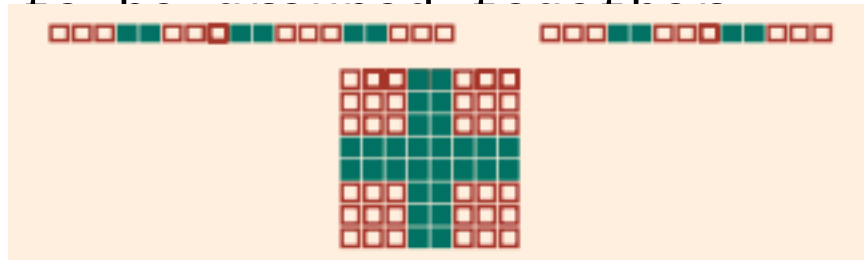
❖ Nearness

- All other things being equal, stimuli that are near each other tend to be constructed, or grouped, together



❖ Similarity

- "Birds of a feather flock together,"
- Stimuli that are similar in size, shape, colour, or form tend to be constructed together

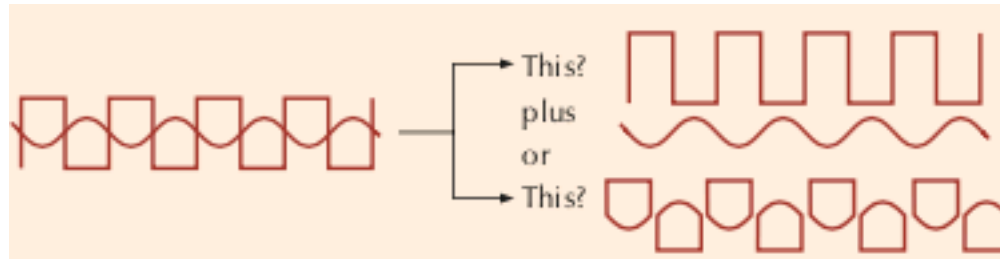


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❖ Continuation (continuity)

- Perceptions tend toward simplicity and continuity



❖ Closure

- Tendency to **complete** a figure so that it has a consistent overall form



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❖ Contiguity

- nearness in time *and* space .

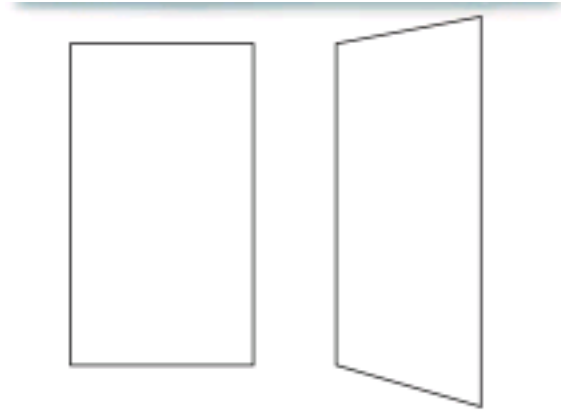
❖ Common region

- Stimuli that are found within a common area tend to be seen as a group



Perceptual constancies

❖ Shape constancy



❖ Size Constancy





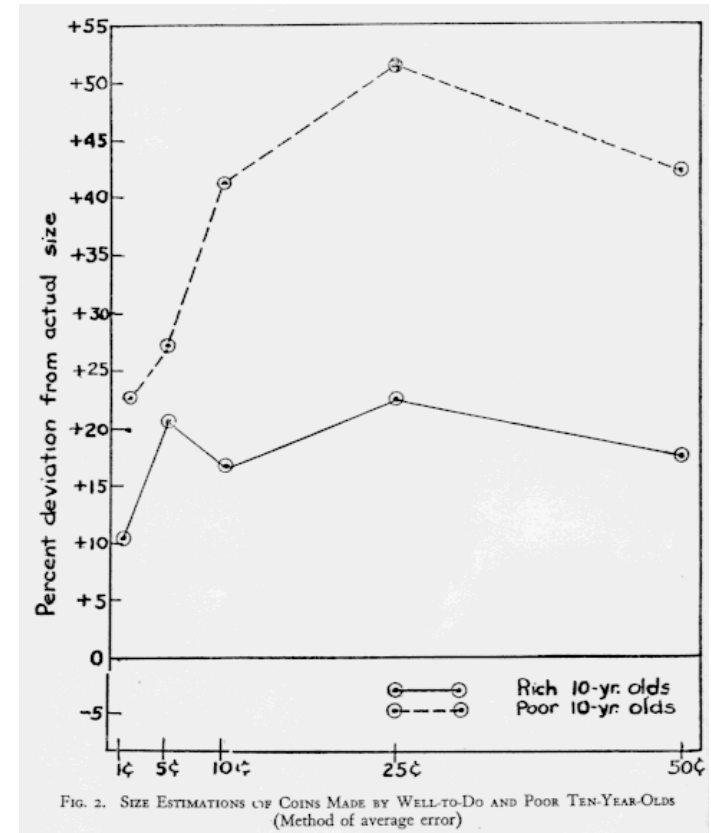
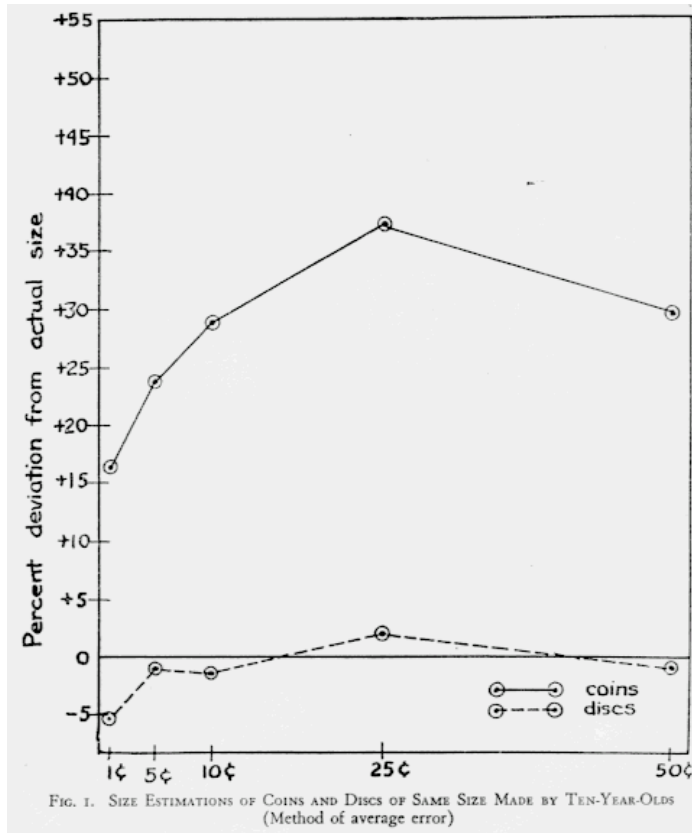
Perceptual fallacies

- ❖ Illusion
- ❖ Delusion
- ❖ Hallucination

Role of motivational factors



❖ Bruner's Experiment



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Thank you