

# Perception

DR EMAN ELSHESHTAWY  
PROFESSOR OF PSYCHIATRY

**\*\* Definition:**

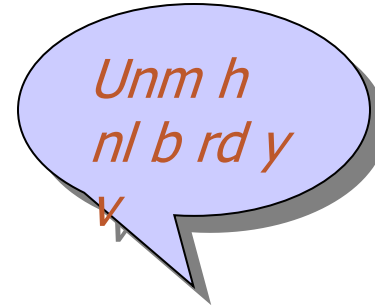


**“Giving meaning to a stimulus “  
(to a sensation)**

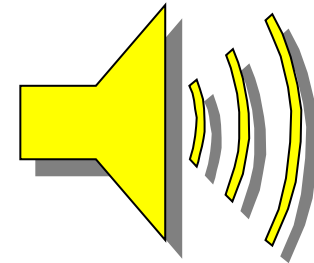
**It is our gate to know the world around and to  
acquire knowledge**

# Nature of perceived stimuli

## 1- Symbols:



## 2- Signals:



## 3- concepts: kindness, success, “rewesh” .....

# Definition:

The process in which input data from the sense organs are analyzed, organized and interpreted in a meaningful way.

Is the process by which one can assign meaning to his experience.



## \*\*Neuro-physiology of Perception

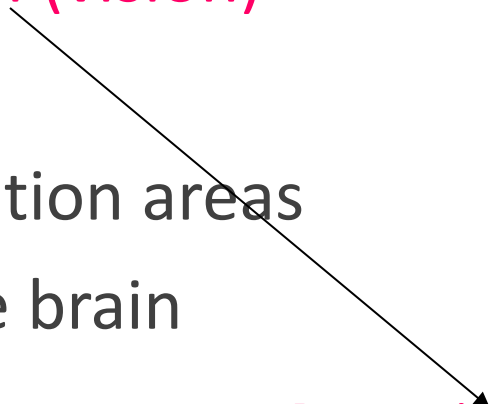
Stimulus

visual pathways  
& Receptors



Sensation (vision)

Association areas  
of the brain



Perception

# Association areas “Psychic areas”

Visual:	18 & 19
Auditory:	22
Sensory:	5 & 7

# PERCEPTUAL PROCESS

- **1-Receiving Stimuli:** The perceptual process starts with the reception of stimuli. **(Sensation)**  
that is our first awareness of some outside stimulus
- **2-Selection of Stimuli: (selective perception)**
- We select some stimuli for further processing to attach meaning to them while the rest are not.

# PERCEPTUAL PROCESS:

## **3-Organization of Stimuli:**

the bits of information is converted into a meaningful whole  
“or

**4. Interpretation:** Assigning meanings to data

**5-Action:** Attitudes , Motivation, Feeling may be positive or negative depending upon favorable perception held by the perceiver

# Perceptual Organization

## “Gestalt Psychology”

# Perceptual Organization

## I- Stimulus Factors

## II- Personal Factors

A- Figure-Ground  
relationship

B- Building-up a figure

# A) STIMULUS FACTORS

**Gestalt organizational rules:** that specify how our brains combine and organize individual pieces or elements into a meaningful pattern or perception.

It includes:

- 1. Figure-ground:** in organizing stimuli, we tend to automatically distinguish between figure and ground.

## *A- Figure-Ground relationship*





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Illustration by Lacey

I- Stimulus Factors

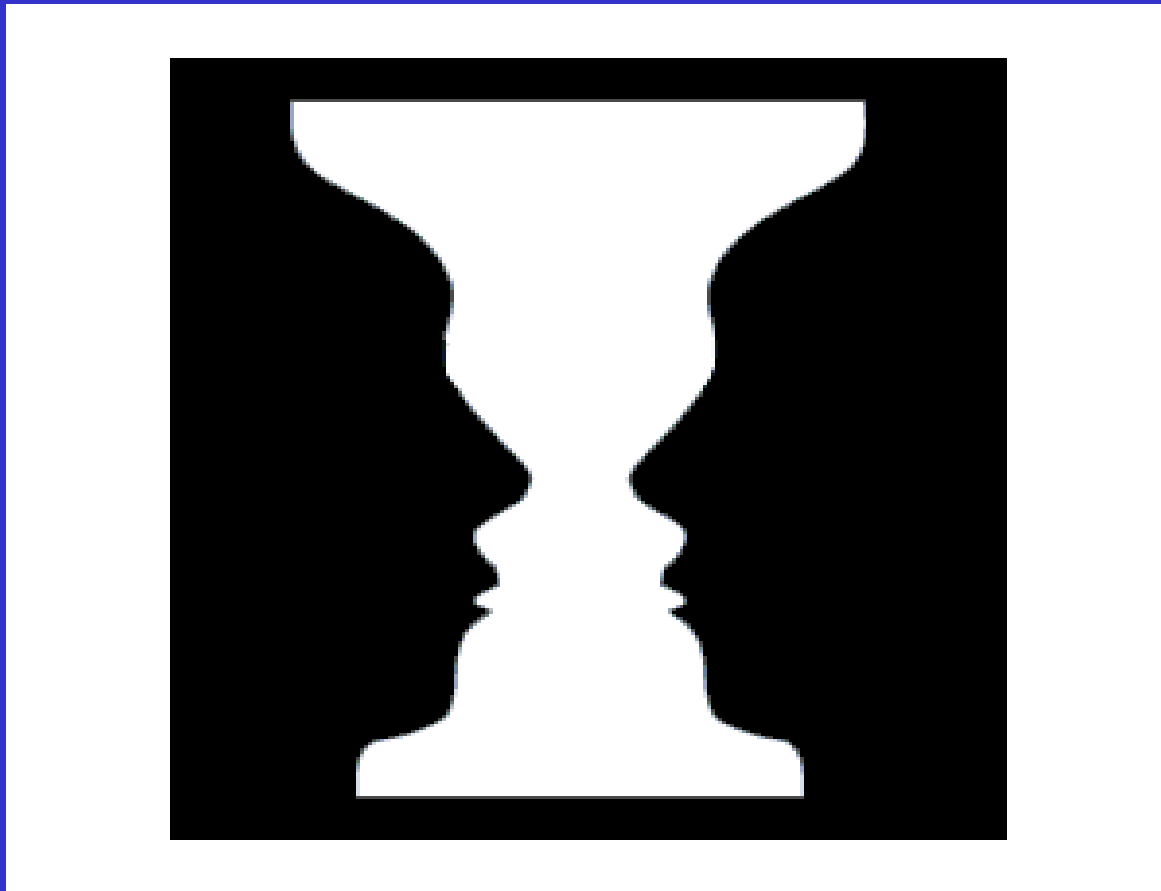
*A- Figure-Ground relationship*





I- Stimulus Factors

*A- Figure-Ground relationship*



# STIMULUS FACTORS:

## 2. Perceptual grouping:

**Continuity:** this means that there is a natural resistance to break the continuous flow of a line, pattern or design in our perceptual awareness.

**Proximity:** one perceives things near to each other as if forming a unit.

**Similarity:** one perceives similar colors and shapes as if gathered together.

**closure:** is a tendency to fill in any missing parts of a figure and see the figure as complete.

# I- Stimulus Factors

## B- Building-up a Figure:

1- Similarity



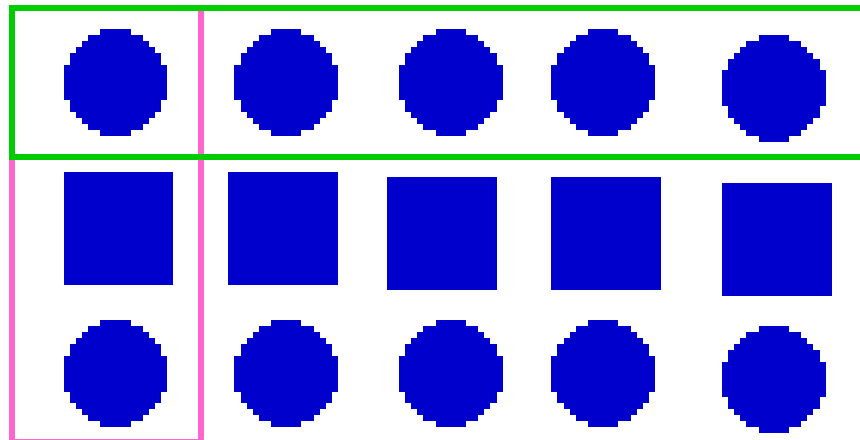
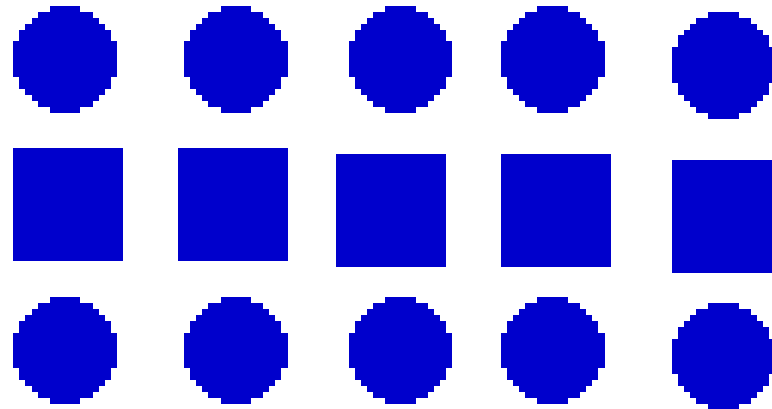
2- Proximity



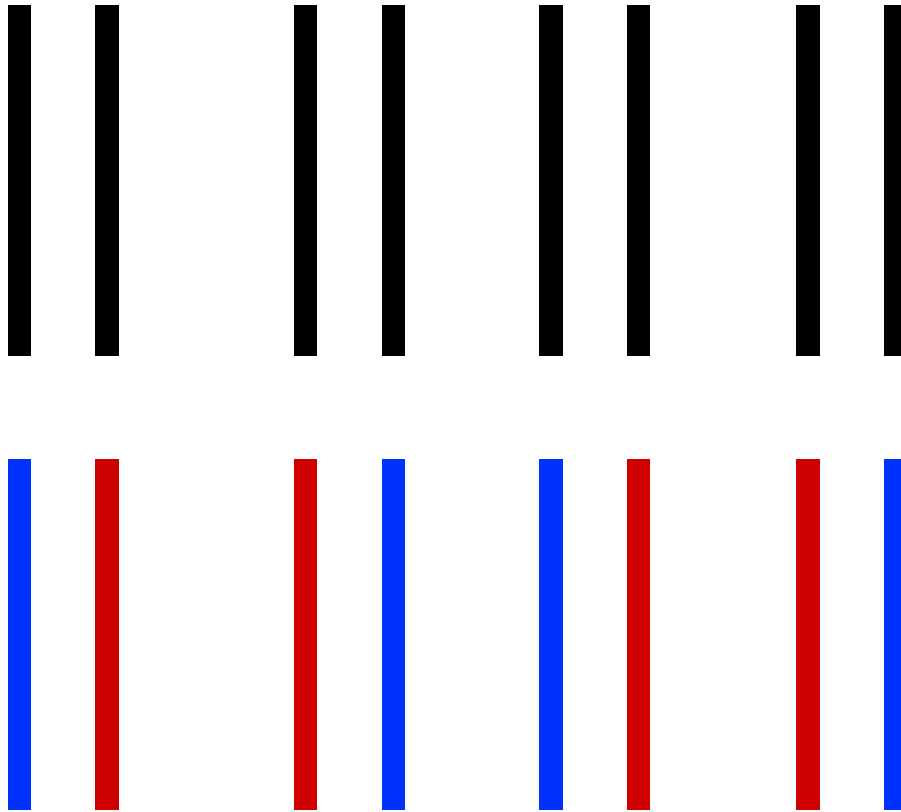
3- Good Form

4- Competition & Co-operation

# *Similarity*

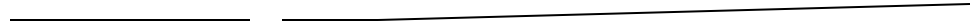


# *Proximity*



# *Good Form:*

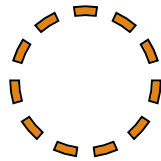
a- Continuity



b- Symmetry



c- Closure

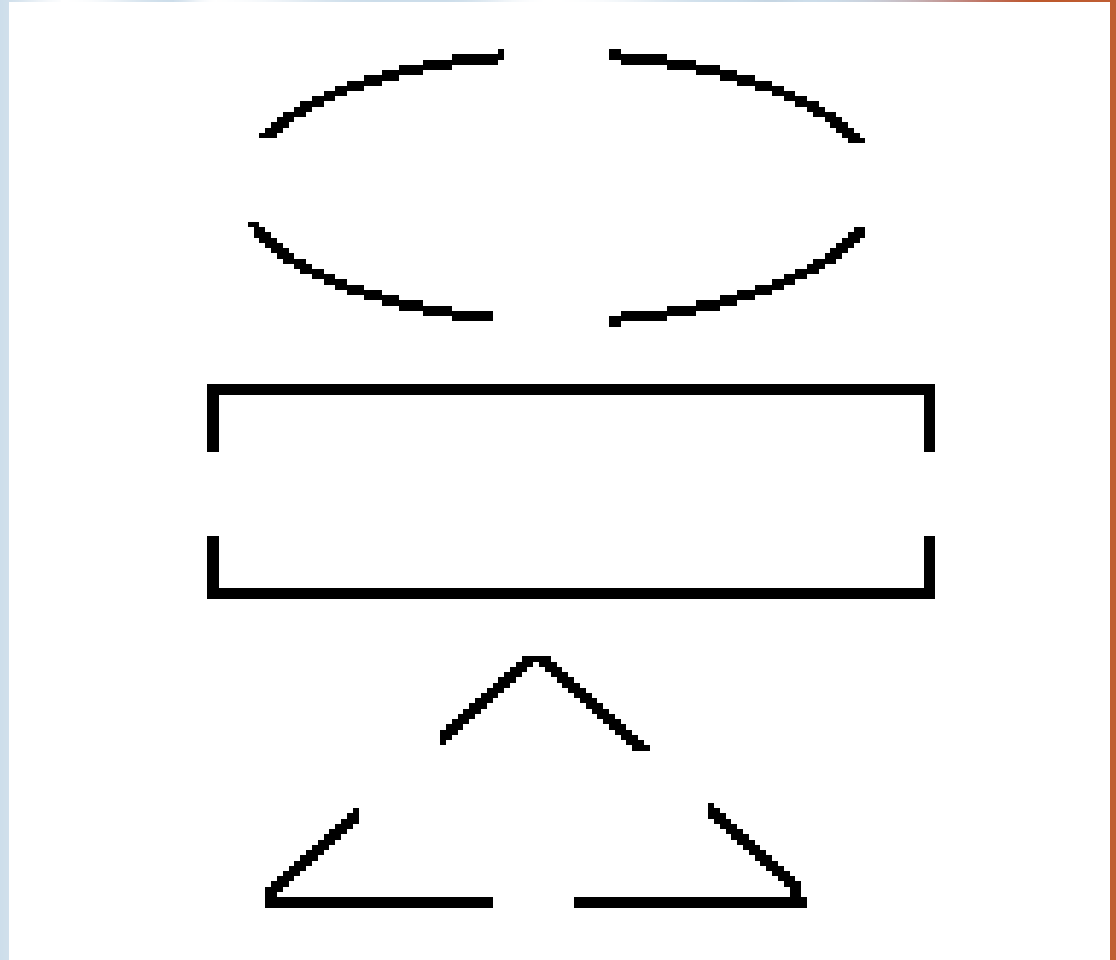


d- Approximation

# *Continuity*



# Closure



## B) PERSONAL (INTERNAL) FACTORS:

**Habit and familiarity:** retained past experience and habit, make it easy to perceive similar objects.

**Set:** is selective preparedness to perceive certain figures or objects according to our expectation at a moment.

**Aesthetic factor:** is the individual's tendency to perceive pleasing and beautiful and disregard irregular, meaningless and ugly ones. This depends on critical ability of the individual.

## B) PERSONAL (INTERNAL) FACTORS:

**Emotions:** feeling and emotions influence one's capacity for accurate or objective perception e.g lovers disregard the faults and defects of the beloved person.

**Drive and motivation:** individuals are prone to errors of perception when influenced by a strong drive e.g the desert traveller suffering from intense thirst sees the mirage of a pool of water which turns out to a sea of sand.

**Suggestion and hypnosis:** these has a strong influence on susceptible individuals in causing distorted and false perception.

WHAT MATTERS MOST  
IS HOW YOU SEE YOURSELF.



[funnypics.dk](http://funnypics.dk)

# PITFALLS (ERRORS) OF PERCEPTION:

## 1) **Impression of others:**

first impression overwhelm second and third.

**Negative impression of others:** when people are aware of both positive and negative qualities they tend to be more influenced by the negative.

## 2) Halo and devil effect:

Drawing a general impression about an individual on the basis of a single characteristic.

**Halo effect:** we perceive attractive personnel as smart, happy, rich and honest.

**Devil effect:** we perceive unattractive personnel as dumb, poor and dishonest.

The problem is that we unfairly punish some individuals and rewarding others simply due one dominant trait we notice.



# 3) Selective process

The mind likes consistency, simplicity & balance.

Any information that could “disrupt the peace” is seen as dangerous.

The brain tries to restore balance through:

- A. **Selective exposure**: We attend to messages that are in accord with our already-held attitudes and avoid dissonance from other ideas
- B. **Selective Retention**: We remember what is consistent with pre-existing attitudes and interests
- C. **Selective Perception**: We mentally recast messages so that they are inline with our beliefs and attitudes

## 2. **Self-Serving Bias:**

We alter our interpretations to favor ourselves & to “cheat” others:

- **Your Test Grade:** When we do well, it is because of internal factors (I worked hard--I'm smart).

When we do poorly, it is because of external factors (Your professor hates you).

- **Others' Test Grade:** When others do well, it is because of external factors (They got lucky--They were given special treatment). When others do bad, it is because of internal factors (They are stupid and lazy).

# Psychophysics of Perception

## 1-Accuracy of perception:

Perception depends on many factors and so, its accuracy is questionable, specially if the sign is ambiguous.

## 2-Perception of number (span of apprehension)

- It is the number of items which can be correctly estimated in a single glance without counting.

### 3- Variable error of perception:

- The error occurs on both sides of the correct value
- Difficult to be eliminated or corrected.



### 4- Constant error of perception:

- The error occurs always on only one side of the correct value
- Easily corrected

**5- Absolute threshold of perception:**

It is the minimal value of the stimulus intensity which can be perceived

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**6- Difference threshold of perception:**

It is the minimal value of increase or decrease in a stimulus which an individual can observe.

1 1 1 1 1

## 8- Perceptual constancy:

It is the perception of an object and all of its properties as “constant” in spite of the continuously changing stimuli perceived by the sense organs



## 9-Perceptual artifacts:

It is the perception of a stimulus after being physically ceased.

i.e. the “after-effect” of a stimulus.

## 10- Extra-sensory Perception:

??? Information may be transmitted through channels other than the known sensory mechanisms



- (a) **Telepathy**: thought transmission
- (b) **Clairvoyance**: knowledge of what's happening elsewhere
- (c) **Precognition**: Prediction of future events
- (d) **Psychokinesis**: moving objects by mental power
- (e) **Color detection**: By touch

# 1- Faulty Perception

Camouflage: التمويه

\*\*making others unable (blind) to perceive a stimulus.

\*\*Examples: -Animals & Birds

-In the Army

\*\*Mechanisms: addition, embedding, prolongation, avoiding figure/background contrast,.....



## 2- Illusions:

” “Misinterpretation of a real stimulus”

## 3- Hallucinations:

\*\* Definition: ”Mental impression of sensory vividness in absence of a stimulus”.

\*\* Causes: **Pathological**

\*\* Types:

according to different sensation:

-auditory, visual, olfactory, tactile, gustatory

-Hypnagogic & Hypnopompic: **Normal Halluc.**



*Bye Bye*