Perception

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Introduction

Perception is an immediate comprehension of an object or situation affecting any or all the sense organs by way of sensation. Perception is the general name given to the interpretation of sensory data by the brain. So perception is a process by which sensory input is so interpreted as to make it meaningful.

Perception is multimodal each sense reflecting a different mode of gathering information . The effortless , multimodal process of perception can be defined as the brain's attempt to describe objects and events in the world ,based on sensory input and knowledge – Bootzin (1991)

Processes Of Perception

- **Receptor Process :** Different perception like visual, olfactory , auditory or tactual are activated , simultaneously but perception is limited only to a particular receptor process.
- **Unification Process :** For a perception of rose , a unification of the different sensation is necessary.
- **Symbolic Process:** Sensory stimulation arouses certain neural activities which have their trace in the nervous system , they are popularly known as neural traces. These traces act as symbols for original stimulus or experince .

Nature Of Perception

*Perception is response to some change or difference in environment.

*Perception is selective.

*Perception is an active process.

*Perception fills the missing details.

*Perception is organised.

Perception is preparation to response.

*Perception is a personal thing.

*Perception involves sensation.

*It has 3 main functions: 1) it tells you the location of the object. 2) It tells you whether the object is moving and in what direction. 3) Finally it tells you what the object is (form).

FORM PERCEPTION

It is the organising and recognising visual sensations as shapes, noticing likes and differences.

In Gestalt View *, our perception of form is controlled by the brain's organising tendencies within an individual himself which act on sensory data to produce the world of experience . These tendencies are termed as laws of organisation. There are 4 laws of organisation:*

**Law of figure and background.*

**Law of grouping.*

**Law of contour.*

**Law of closure.*

Figure	Background
•Shape is clear and distinct. •It appears on the front. •It is bright. •It is meaningful. •Figure is of small size.	• Shape is vague and formless. • It appears behind the figure. • It is dull. • It is meaningless. • Background is of large size.

When figure background relationships are ambigous, or capable of being interpreted in various ways, our perceptions tend to be unstable, to shif back and forth. Look at the Escher Print. If your eye is drawn back and forth, so that sometimes you are percieving light figures on dark background and then dark figures on a light background, you are experiencing figure background reversals.

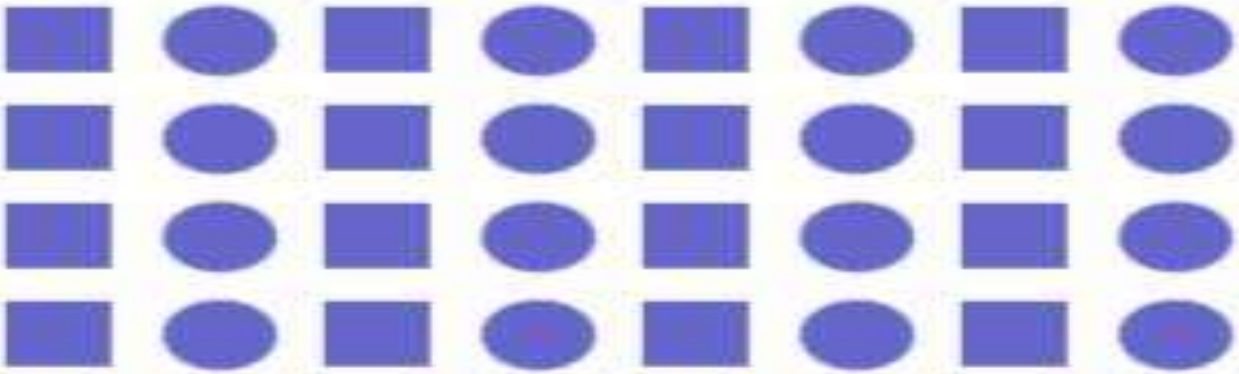
Here in this figure, background is as meaningful as figure is used by psychologists demonstrate figure-background perception. There are no cues that suggest which area must be the figure. For this reason, our perception may shift from seeing the vase as the figure and then seeing two profiles as the figure.

The Necker Cube

The Necker cube provides another example of how an ambiguous figure can lead to perceptual shifts. Stare at the centre of this figure for 30 seconds or so. Try to relax your eye muscles. After a while you will notice a dramatic shift in your perception of these "stacked boxes".

Laws of Grouping

1.

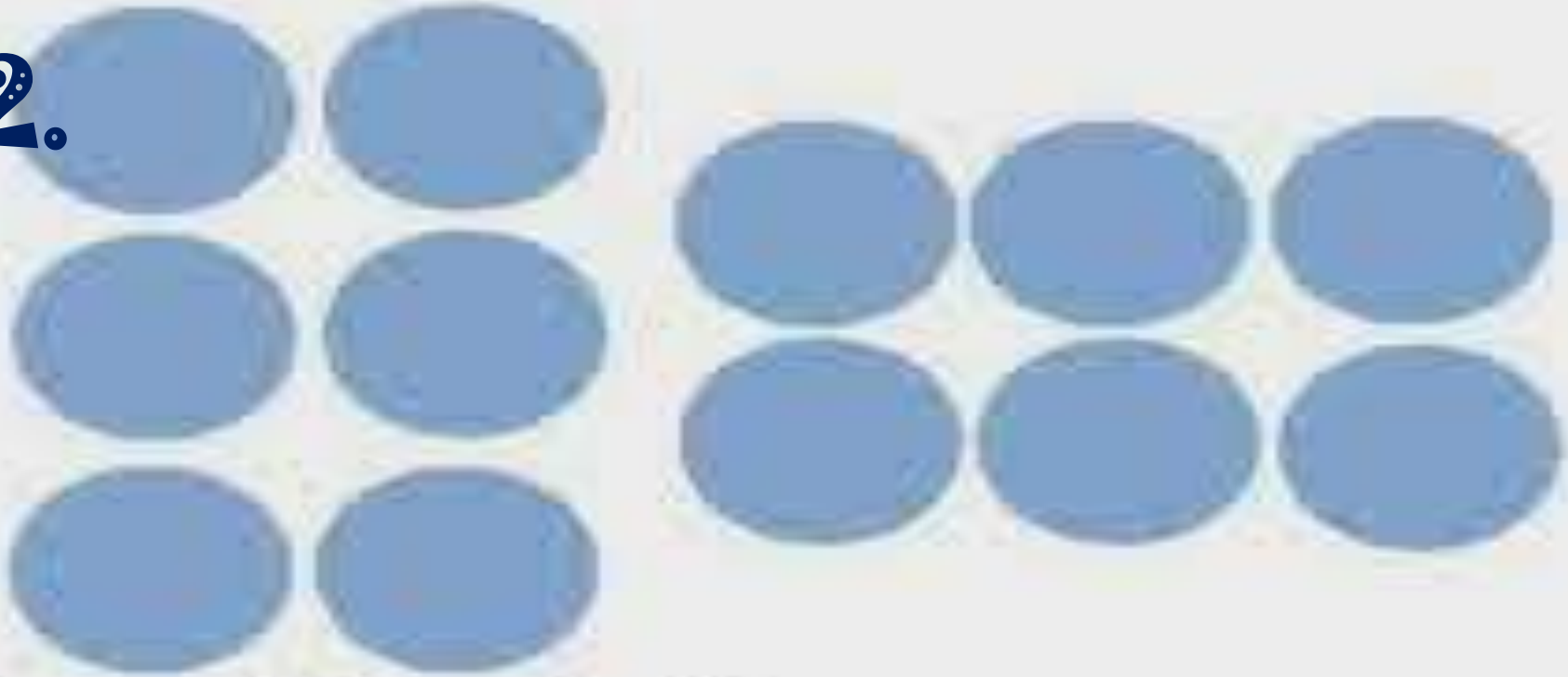


Law of Similarity:

Items that are similar tend to be grouped together.

In the image above, most people see vertical columns of circles and squares.

2.

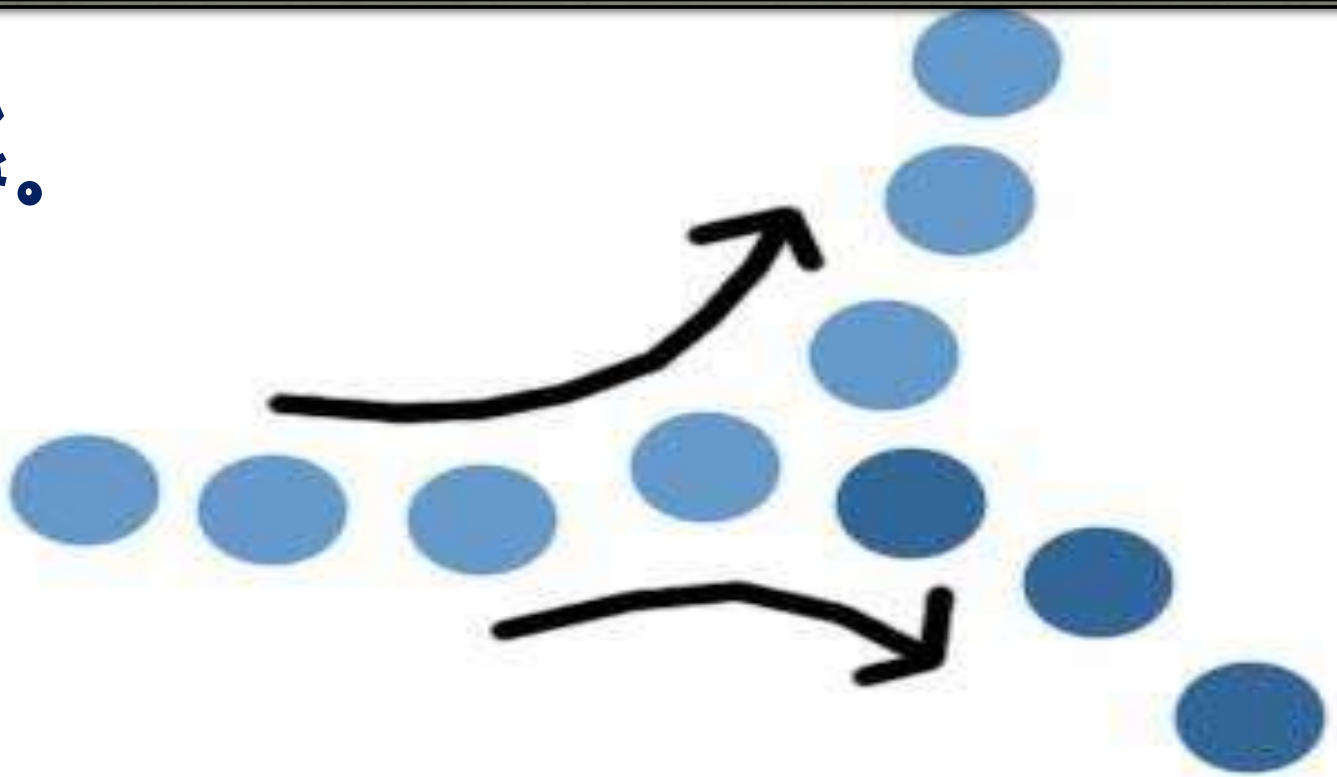


Law of Proximity:

Objects near each other tend to be grouped together.

The circles on the left appear to be grouped in vertical columns, while those on the right appear to be grouped in horizontal rows.

3.

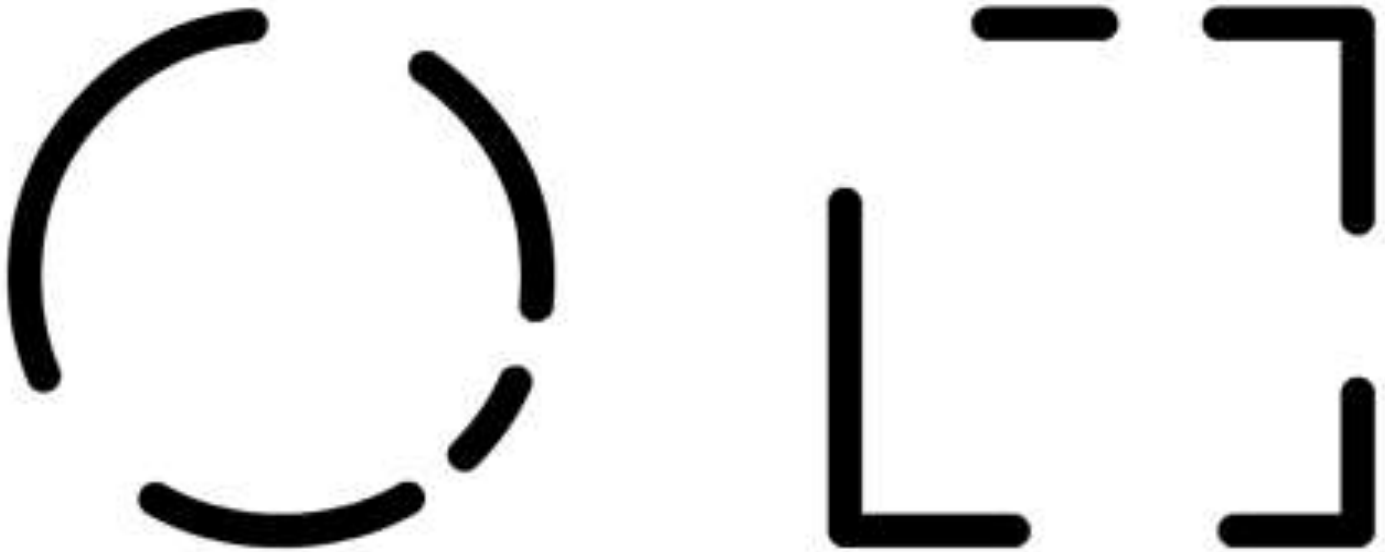


Law of Continuity:

Lines are seen as following the smoothest path.

In the image above, the top branch is seen as continuing the first segment of the line. This allows us to see things as flowing smoothly without breaking lines up into multiple parts.

4.



Law of Closure:

Objects grouped together are seen as a whole.

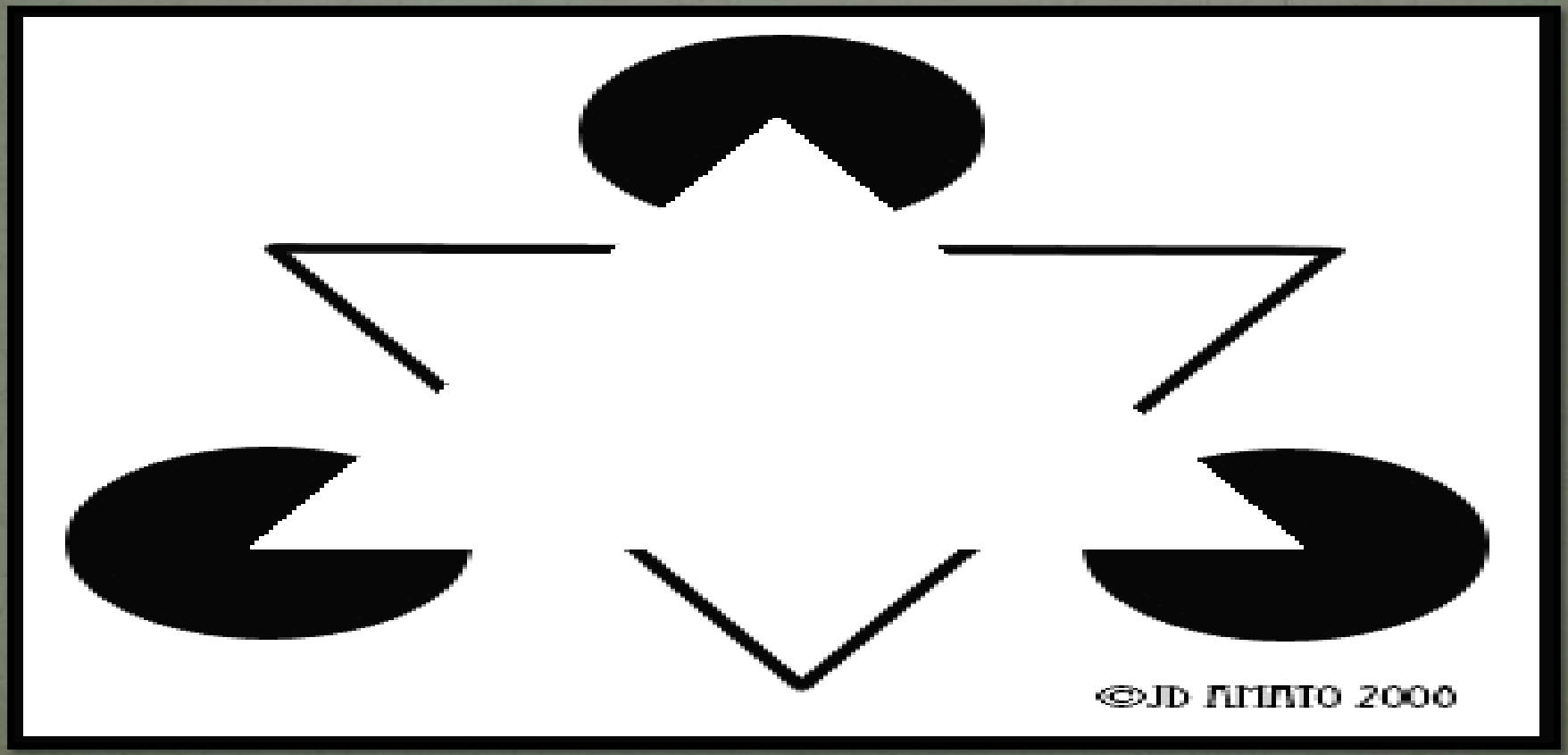
We tend to ignore gaps and complete contour lines. In the image above, there are no triangles or circles, but our minds fill in the missing information to create familiar shapes and images.

Principle Of Contour

The separation of objects from the general background in visual perception is possibly only because of the perceptual principle known as Contour.

Principle of closure

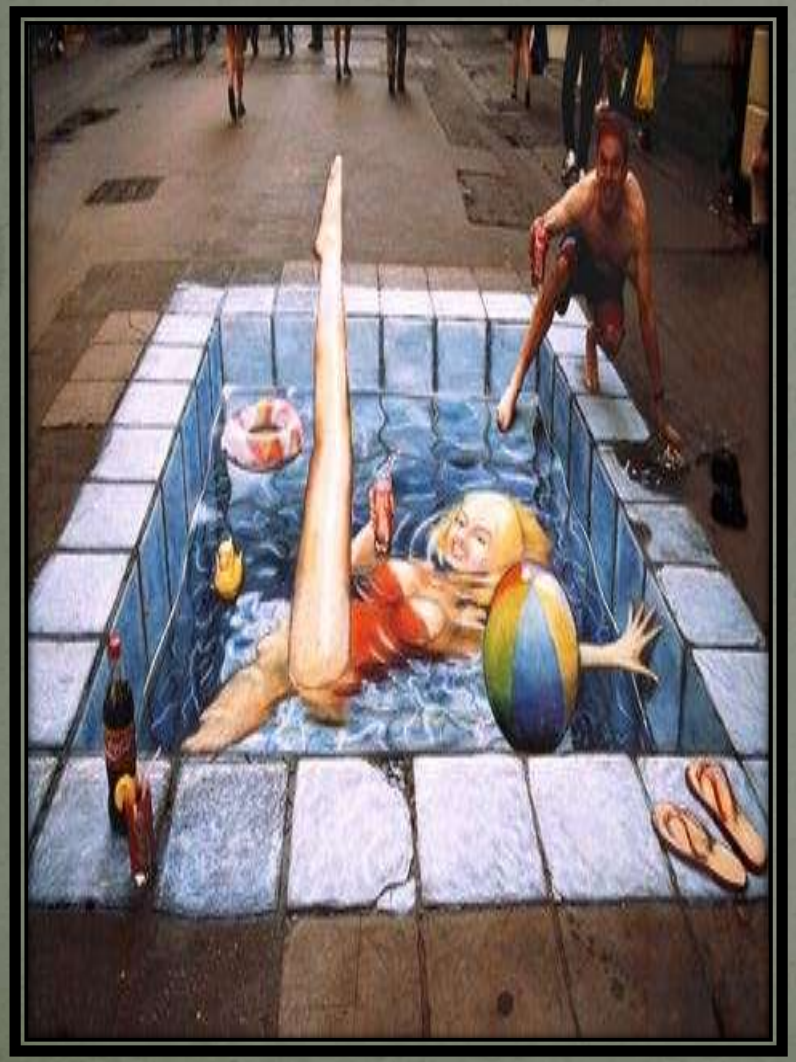
Another powerful principle is our inclination to perceive incomplete figures as complete, a process known as closure.



Space Perception

It is the process through which humans and other organisms become aware of the relative positions of their own bodies and objects around them. Space perception provides cues, such as depth and distance, that are important for movement and orientation to the environment.

Depth Perception



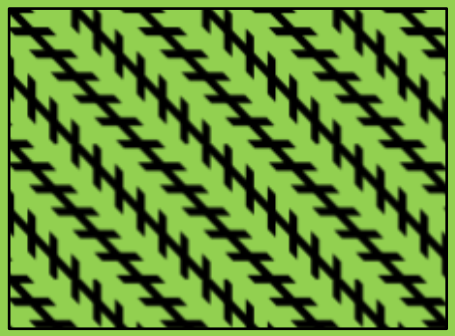
Depth perception *is the visual ability to perceive the world in three dimensions (3D) and the distance of an object Depth perception arises from a variety of depth cues. These are typically classified into binocular cues that are based on the receipt of sensory information in three dimensions from both eyes and monocular cues that can be represented in just two dimensions and observed with just one eye. Binocular cues include stereopsis, eye convergence, disparity, and yielding depth from binocular vision through exploitation of parallax.*

Illusion

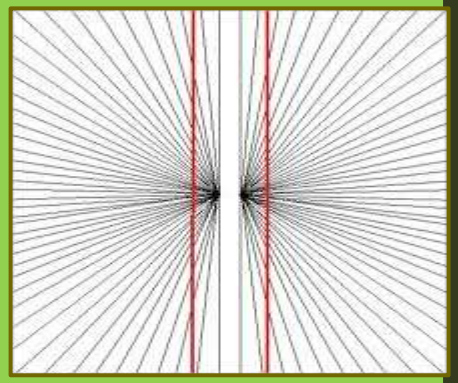
Individual Illusion : When illusion is limited to a specific person.

Universal illusion : The experiences of such illusions are same for most of individuals for example, geometrical illusions.

Zulliner illusion : Although all four lines are parallel but these do not look parallel because of the curved lines on them.



Herring's illusion : In this both the horizontal lines are although parallel but they appear to be curved.

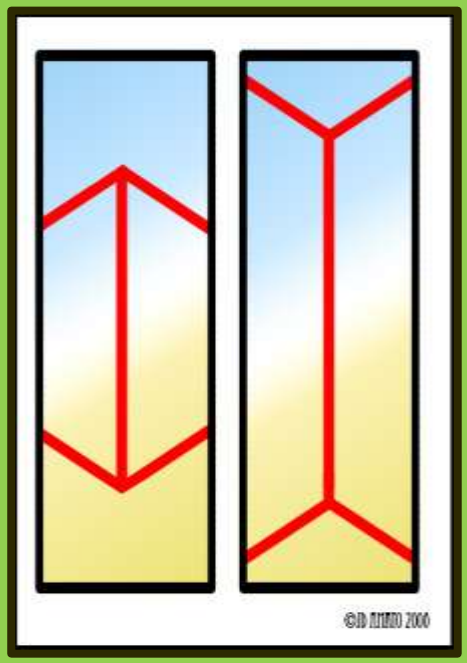


Illusions of reversible perspective :

Reversible figures can be seen in either of the two ways.

Illusion of extent or distance :

Muller – Lyer illusion . the two lines in the muller -lyer illusion are of the same length, but the line on the left, with its reversed arrow heads , looks longer.



Paradoxical Illusion: *These consist of figures which seems plausible when we look at them, but which are impossible to make in real life.*

Thank you