Gestalt Principles of Perception

Contrast

• Contrast occurs when perception is influenced by comparison.
• Here we discuss three types of contrast:
  – Brightness (or lightness) contrast
  – Color contrast
  – Size contrast

Brightness Contrast

The center squares are the same shade of gray. They look different because of their contrasting black or white surrounds.
Color Contrast
The center squares are the same color, but appear different because of their different contrastingly colored surrounds.

Size Contrast
The two center circles are the same size, but appear different because of the differently-sized surrounding circles.

Context
When a stimulus can be interpreted in more than one way, the context in which it appears can resolve the ambiguity.
**Figure Ground**

- Separation of image into figure and ground
- Border belongs to the figure
- Ground seems to continue behind the figure

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**Closure**

We tend to perceive figures as whole even though the lines enclosing them are incomplete – we “close” the figure. Below, we see a triangle even though the sides have gaps in them.

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**Good Continuation, or Good Figure**

Where lines intersect, we tend to see them as continuing along their previous course, rather than suddenly changing direction. As a result, we tend to decompose figures into their simplest components.
The Perceptual Constancies

- Next we examine the so-called perceptual constancies:
  - Shape constancy
  - Size constancy
  - Brightness or lightness constancy
  - Color constancy

Shape Constancy

We tend to see an object as holding its essential shape even though the shape of its image changes with our view of it.

![Door seen from in front and from an angle](image)

Size Constancy

- An object appears to retain its essential size even though its image changes size with distance.

![Hot air balloons](image)
Brightness Constancy

Objects seem to retain about the same brightness or lightness under widely differing levels of illumination.

Brightness Constancy

Object appear to retain their essential color even though illuminated by somewhat differently colored lights.

Color Constancy

Principles of Grouping

• These are principles by which you recognize objects as belonging to the same group. They include:
  – Similarity
  – Proximity
  – Common fate
Similarity
Objects are recognized as belonging to the same group when they have a similar appearance. Below we see two groups.

Proximity
We perceive objects as belonging to the same group based on their relative distances from one-another. Below we again see two groups.

Common Fate
We perceive objects as belonging to the same group when the same changes are happening to them.