Laws of Perceptual Organization

Gestalt psychologists outlined what seemed to be several fundamental and universal principles (sometimes even called 'laws') of perceptual organization.

- figure/ground distinction
- proximity
- similarity
- continuity
- closure
- smallness
- surroundedness
- symmetry
- pragnanz

Gestalt and Typography

Mike Cuenca, Assistant Professor of Visual Communications, at the William Allen White School of Journalism and Mass Communication, University of Kansas produced this 7 minute Shockwave "movie" on how the principles of gestalt theory effect our understanding of type, and how to use those principles for better communication.

figure/ground



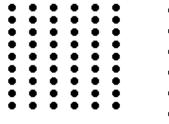
Confronted by a visual image, we seem to need to separate a dominant shape (a 'figure' with a definite contour) from what our current concerns relegate to 'background' (or 'ground').

An illustration of this is the famous ambiguous figure devised by the Danish psychologist Edgar Rubin. Images such as this are ambiguous concerning figure and ground. Is the figure a white vase (or goblet, or bird-bath) on a black background or silhouetted profiles on a white background?

Perceptual set operates in such cases and we tend to favour one interpretation over the other (though altering the amount of black or white which is visible can create a bias towards one or the other). When we have identified a figure, the contours seem to belong to it, and it appears to be in front of the ground.

proximity

What you are likely to notice fairly quickly is that this is not just a square pattern of dots but rather is a series of columns of dots. The principle of proximity is that features which are close together are associated.



Here we are likely to group the dots together in rows.

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The principle also applies in the illustration below. We are more likely to associate the lines which are close together than those which are further apart. In this example we tend to see three pairs of lines which are fairly close together (and a lonely line on the far right) rather than three pairs of lines which are further apart (and a lone line on the far left).



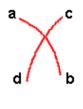
similarity

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Here the little circles and squares are evenly spaced both horizontally and vertically so proximity does not come into play. However, we do tend to see alternating columns of circles and squares. This, the Gestalt psychologists would argue, is because of the principle of similarity - features which look similar are associated. Without the two different recurrent features we would see either rows or columns or both...

continuity

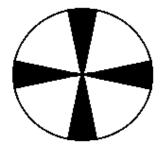
This principle is that contours based on smooth continuity are preferred to abrupt changes of direction. Here, for instance, we are more likely to identify lines a-b and c-d crossing than to identify a-d and c-b or a-c and d-b as lines.



closure

Interpretations which produce 'closed' rather than 'open' figures are favoured. Here we tend to see three broken rectangles (and a lonely shape on the far left) rather than three 'girder' profiles (and a lonely shape on the right). In this case the principle of closure cuts across the principle of proximity, since if we remove the bracket shapes, we return to an image used earlier to illustrate proximity...





smallness

Smaller areas tend to be seen as figures against a larger background. In the figure below we are more likely to see a black cross rather than a white cross within the circle because of this principle.

symmetry

Symmetrical areas tend to be seen as figures against asymmetrical backgrounds. Then there is the principle of surroundedness, according to which areas which can be seen as surrounded by others tend to be perceived as figures.



pragnanz

All of these principles of perceptual organization serve the overarching principle of pragnanz, which is that the simplest and most stable interpretations are favoured.





Sourced from Semiotics for Beginners Daniel Chandler

Puzzles above: 1. TIE 2. Old man crowned with a wreath/two lovers kissing in a bower