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Gestalt principles of perception pdf

Listen to the audio version of this article Negative mode has long been a staple of good design. Leaving white space around elements of design is the first thing that usually comes to mind. But then there are models that use this white space to deduce an element that doesn't really exist (the arrow hidden between the FedEx logo E and X immediately comes to mind as an example). The FedEx logo E and X create an arrow in the negative space between them. The human brain is exceptionally good at filling the image's brain and creating a whole that is greater than the sum of its parts. Therefore, we see faces, for example, in the leaves of trees or in the cracks in the pavement. This principle is one of the most important ideas behind the gestalt principles of visual observation. The most influential early suggestion of theory was published by Max Wertheimer in his 1923 Gestalt laws, although Wolfgang Köhler's 1920 discussion of Physical Gestalten also contains many influential ideas on the subject. Regardless of who first proposed the ideas (there have been essays since 1890), the gestalt principles are an important set of ideas that any designer can learn, and their implementation can greatly improve not only the aesthetics of design, but also its functionality and user-friendliness. At its simplest, the gestalt theory is based on the idea that the human brain tries to simplify and organize complex images or models consisting of many elements, organizing the parts subconsciously into an organized system that creates a whole and not just a series of different elements. Our brains are built to see the structure and patterns so that we can better understand the environment in which we live. The Gestalt theory generally involves six individual principles: similarity, continuation, closure, proximity, image/country and symmetry & order (also called prägnanz). The gestalt is sometimes accompanied by some other, new principles, such as common destiny. Similarity To human nature is to group together like things together. In the gestalt, similar elements are visually grouped regardless of their proximity to each other. They can be grouped by color, shape, or size. Similarity can be used to combine elements that may not be quite adjacent to the structure. All the squares here are flat and the same size, but we automatically group them by color, although there is no rhyme or reason to place them. Of course, you can make things different if you want to make them stand out from the crowd. That's why call-to-action buttons are often designed to be different from the rest of the page – so they stand out and draw the visitor's attention to the desired action. In UX design, the use of similarity makes it clear to your visitors which items are similar. For example, in a list of features that uses repeating design elements (such as an icon 3-4 in a line of text), the similarity principle would make it easier to scan through them. Instead, changing the design elements of the features you want to highlight makes them stand out and give them more meaning in the visitor's perception. Even things as simple as ensuring that links throughout the design are formatted in the same way are based on the principle of similarity in the burden of your visitor's agglomeration, where visitors can take into account the organization and structure of your site. Continuing The Law of Continuity suggests that the human eye follows the smoothest path along the lines, regardless of how the lines were actually drawn. The eye tends to follow a straight line from one end of this chapter to the other and a curved line from top to bottom, although the lines change color in the middle. This continuation can be a valuable tool when the goal is to guide the visitor's eye in a certain direction. They follow the simplest path on the page, so make sure that the most important parts they should see belong to this path. Since the eye naturally follows the line, placing objects in a series of lines naturally draws the eye from one object to another. Horizontal sliders are one example, as are related product catalogs on sites like Amazon. Closing Closing is one of the finest gestalt principles I discussed at the beginning of this work. It's the idea that your brain fills the missing parts of a design or image to create a whole. At its simplest, the closing principle allows your eye to follow some dotted line to its end. But more complex applications are often seen on logos such as the World Wildlife Fund. The outline of the panda is missing from large pieces, but your brain has no problem filling the missing parts to see the whole animal. The principle of closing the gestalt is beautifully described in the Pandalog of the World Wildlife Fund. The brain finishes the white shapes, although they are not well defined. Closing is quite often used in logo design, and other examples include USA Network, NBC, Sun Microsystems, and even Adobe. Another very important example of closing UX and UI design at work is when you show a partial image fading from a user screen to show them that more will be found if they swipe left or right. Without a partial image, that is, if only complete images are displayed, the brain does not immediately interpret that there may be more to see, and therefore your user scrolls less (because the closure is already obvious). Proximity Intimacy means how close the elements are to each other. The strongest proximity relationships are relationships between overlapping topics, but only grouping objects into one area can also have a strong intimacy effect. Of course, the opposite is also the case. By placing space between elements, you can also add separation when their other properties are the same. Please group group For example: The only thing that distinguishes the group on the left from those on the right is the proximity of the lines. Yet your brain interprets the correct image as three separate groups. A USPS PDF example where the proximity gelding principle weakens UX. However, the information is to be provided in the fields above the text headings. In UX design, intimacy is most often used so that users can group certain things together without, for example, hard limits. By zooming in on things with space between them, the viewer immediately picks up the organization and structure you want them to notice. Image/country The image/country principle is similar to the closing principle because it uses the way the brain processes negative space. You've probably seen examples of this principle floating around in memes on social media or as part of logos (such as the FedEx logo that has already been mentioned). Your brain separates objects that it considers to be in the foreground of the image (image or center) and background (the area where the numbers rest). The situation gets interesting when there are really two separate images in the foreground and background, such as this one: Some people immediately see a tree and birds looking at the logo of the Pittsburgh Zoo & PPG Aquarium, while others see a gorilla and a lion staring at each other. Another great example of the character/country gestalt principle. A simpler example can be seen with this image, of two faces creating a candlestick or vase between them. In this famous illusion developed by the Danish psychologist Edgar Rubin, the viewer is usually presented with two formal interpretations - two faces or a vase. It is another excellent example of the principle of character and country. Generally speaking, your brain interprets the image as the land of a larger area and a smaller one as a figure. However, as you can see from the image above, you can see that lighter and darker colors can influence what is considered a character and what is considered a country. The image/country principle can be very useful when product designers want to highlight a centerpiece, especially when it's active or enabled — for example, when a modal window opens and the rest of the site fades into the background, or when the search bar is clicked and the contrast increases between it and the rest of the site. Symmetry and order The law of symmetry and order is also known as prägnanz, the German word for good character. This principle says that your brain recognizes ambiguous forms in the simplest possible way. For example, a monochrome version of the Olympic logo is seen as a series of overlapping circles instead of a collection of curved lines. Here's another good example. design principle prägnanz: Your brain interprets the image on the left as a rectangle, circle, and triangle, although the outlines of each are incomplete because they are simpler shapes than the big picture. Common destiny Although common destiny was not originally included in the gestalt theory, it has since been added. In UX design, its usefulness cannot be ignored. This principle states that people group together things that point in the same direction or move in the same direction. In nature, we see this, for example, in flocks of birds or fish schools. They consist of a set of individual elements, but since they move seemingly as one, our brains grouped them together and consider them a single stimulus. A flock of birds is considered a single unit when it flies in the same direction, thus sharing a common destiny. (by Martin Adams on Unsplash) This is very useful in UX, since animated effects become more common in modern design. Note that elements don't really have to move to benefit from this principle, but they need to give the impression of movement. Gestalt principles in UX design Like any psychological principle, incorporating gestalt's visual perception principles into design work can greatly improve the user experience. Understanding how the human brain works and then taking advantage of a person's natural tendencies creates a more seamless interaction that makes the user feel comfortable on the website, even if it's their first visit. Gestalt principles are relatively easy to incorporate into almost any design and can quickly elevate a design that looks random or like it fights for the user's attention to the one that provides seamless, natural interaction that guides users toward the action you want them to engage in. Additional reading on the Toptal Design blog: The classic principles of the gestalt theory of visual observation include similarity, continuation, closure, intimacy, image/country and symmetry & order (also known as prägnanz). Others, such as common destiny, have been added in recent years. Why is gestalt theory important? Gestalt's principles can quickly elevate design that seems random or like it's fighting for user attention to the one that provides seamless, natural interaction that makes your site feel familiar and guides users toward the action you want them to engage in. What is the visual hierarchy in the design? In design, the visual hierarchy is the arrangement or location of different design elements to increase or be smaller in importance. Gestalt's different principles strongly influence the visual hierarchy. What is the gestalt theory of observation? Gestalt's observation theory tries to explain the way the human brain interprets information about relationships and hierarchy in design, or visual cues, such as intimacy, similarity, and closure. Closing. Closing.