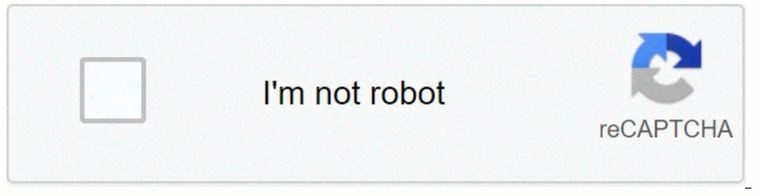

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Relative height psychology

Another pictorial signal to depth is the relative height of objects in the painting. To understand relative height, think of the horizon that divides the world into two roughly equal parts of the world, the ground below and the sky above. Since both halves have a lot to see, the horizon cannot be placed at the bottom of an image, which would leave little room to paint the ground, or on top, which would leave little room to paint the sky. Instead the horizon is usually somewhere near the center of Western perspective painting. Given where the horizon is painted, the distant part of the sky is painted near the center of the image which is close to where the sky and ground meet on the horizon. The part of the ground and the sky near the painter's vantage point then occurs at the extremes of the painting, the near section of the ground near the bottom and the close part of the sky near the top of the painting. Objects on the ground must be painted on the ground and thus increasingly higher as they are depicted further away in depth. An object near yours, the viewer's, feet will be at the bottom of the painting and an object off in the distance is near the center of the painting. Examine the illustration on the left. It starts with six objects at the same level of the illustration, and they look at the same distance. So the move; tree goes over the horizon line and three below the horizon line. At the end, the two star-like objects are closest to the horizon and look furthest away. The two circles are furthest from the horizon line and appear closest. This signal can lead to a powerful sense of depth seen in this landscape by Eugene Boudin called The Coast of Protrieux. The coast near you is at the bottom of the page, and as it retreats in distance it becomes increasingly higher. Since there are no objects, or any interposition, or any real strong texture, the primary signs of depth used in this image are relative height. The coast of Portrieux by Eugene Boudin When the object is in the sky, like the clouds of The Coast of Portrieux above, then the effect of relative height is reversed. Here lower indicates further afield. The general rule is that the closer the level of the horizon, usually near the middle, the further away the object appears. Relative Height is a concept used in a visual and artistic perspective where distant objects are seen or portrayed as smaller and higher compared to elements that are closer. This phenomenon can be seen when looking at a landscape and seeing that distant objects - trees, rocks, animals, etc. - that are at a distance appear to be smaller and taller than similar objects that are close up. Artists deliberately simulate this effect by producing distant objects as both smaller and taller in the perspective of the stage. Angela Lumsden / Moment Open / Getty Images A way in which we perceive depth in the world us is through the use of what are called monocular signals. These are clues that can be used for depth perception that involves using only one eye. If you try to close one eye, it may be harder to judge depth, but you are still able to detect how close or long objects are relative to your location. Depth perception allows us to perceive the world around us in three dimensions and measure the distance to objects from ourselves and from other objects. You can contrast monocular signals with binocular signals, which are the ones that require the use of both eyes. These are some of the common monocular signals that we use to perceive depth. The relative size of an object acts as an important monocular signal for depth perception. It works like this: If two objects are about the same size, the object that looks the largest will be judged as the closest observer. This applies to both three-dimensional scenes and two-dimensional images. Two objects on a piece of paper are the same distance away, but the size difference can cause the larger object to appear closer and the smaller object appears further away. Absolute size, or the actual size of an object, also contributes to the perception of depth. Smaller objects, although we do not know exactly how large they are, will look further away than a large object placed in the same place. Our knowledge of an object influences our perceptions of size and distance. While driving, your familiarity with the typical size of a car helps you figure out how close or far away other vehicles on the road are from your location. An object position relative to the horizon can also serve as a type of monocular cue. Objects that are closer to the horizon tend to be perceived as further away, while those that are farther from the horizon are usually seen as closer. Another important monocular signal is the use of texture to measure depth and distance. When you look at an object that extends into the distance, such as a grassy field, the texture becomes smaller and less clear the further it goes into the distance. When you look out over a scene, the objects in the foreground have a much more apparent texture. The asphalt on the road looks rough and bumpy. The vegetation in the field looks distinctive, and you can easily distinguish one plant from another. As the scene retreats into the distance, these texture signals become less and less clear. You can't detect every tree on the mountain in the distance. Instead, the vegetation that covers the mountains simply looks like a blurry speck of green color. These texture differences serve as important monocular signals to measure the depth of objects that are both near and distant. The perception of moving objects can also serve as a monocular signal for depth. As you move, closer objects appear to zoom faster than in the distance. when driving in a car, for example, the nearby telephone poles rush off much faster than the trees in the distance. This visual clue allows you to perceive the rapid objects in the foreground as closer than the slower moving objects in the distance. Objects that are further away seem to be blurred or a little blurry because of the atmosphere. When you look out at the horizon, closer objects seem clearer, while those in the distance may be obscured by dust, fog or water vapor. Because objects in the distance tend to seem hazier, this signal tells us that blurry objects tend to be further away. Parallel lines seem to meet as they travel into the distance. For example, the outer edges of a road seem to grow closer and closer until they seem to meet. The closer the two lines are, the greater the distance will seem. When one object overlaps another, the object is perceived as partially hidden as further away. For example, if you see two shapes that are in the distance and one shape overlaps and occludes the other, you will perceive the occluded shape as behind the un occluded. This allows you to judge how objects are placed relative to each other and contribute to your experience of depth in the world around you. The way light falls on objects and the amount of shading present can also be an important monocular signal. Objects that are dark and hidden may appear further away in the distance than those that are brightly lit. To focus on close-ups, certain muscles of the eye contract, change the shape of the lens. When you look at objects that are far away, the same muscles relax. This accommodation can serve as a monocular signal, although we are often not aware of it. As we perceive the world around us, many of these monocular signals work together to contribute to our experience of depth. The corner of a building looks bigger and more structured, which makes it seem closer. Objects further down the street look smaller, so we judge them as further away. The parallel lines of the highway gradually appear closer as they disappear into the distance, and the mountains in the distance seem fuzzy and blurry. All these monocular signals contribute to our overall experience of the stage, our perception of depth and distance, and our interpretation of our position in relation to other objects in the scene. Monocular signals can play an important role in the detection of depth in the world around us. Unlike binocular signals, which involve the use of both eyes, monocular signals require only the use of one eye and can be presented in two dimensions. Because of this, many of these signals are used in art to create the illusion of depth in a two-dimensional space. Thanks for the feedback! What are your concerns? Verywell Mind uses only high-quality sources, including peer-reviewed studies, to facts in our articles. Read our editorial process to learn more about how we fact-check and keep our content accurate, reliable and reliable. Coon D, Mitterer JO. Introduction to Psychology: Gateways to Mind and Behavior. Belmont, CA: Wadsworth Cengage Learning; 2010. Goldstein EB. Feeling and perception. Belmont, CA: Wadsworth Cengage Learning; 2014. 2014.