

An Introduction to Sensation

Unit: Sensation and Perception

The Basics

LEARNING OBJECTIVE 1. Distinguish between sensation and perception and explain how we get from one to the other.

Sensation and Perception are useful because they help us find our way through the world.

In a little while, you will have to avoid bumping into the wall or falling down a flight of stairs as you make your way through the school. Luckily for you, the world is full of physical events—sounds, odors, lights—that provide clues about what's going on around you. You have adapted remarkably sophisticated ways to detect nearby squeaks and far-off roars, hovering mosquitoes and distant mountains, fragrant fruits and repellent skunks.

Imagine that you accidentally squirt some grapefruit juice on your face. What do your senses tell you? You smell a strong fragrance, you feel cool moisture on your skin, and you experience sharp taste on your tongue. Your sensory systems have detected these features of the juice. This process is *sensation*.

Sensation is the detection of physical stimuli and transmission of that information to the brain. Physical stimuli can be light or sound waves, molecules of food or odor, or temperature and pressure changes. Sensation is the basic experience of those stimuli. It involves no interpretation of what we are experiencing.

Perception is the brain's further processing, organization, and interpretation of sensory information. Perception results in our conscious experience of the world. Whereas the essence of sensation is detection, the essence of perception is construction of useful and meaningful information about a particular sensation. For example, when you are squirted in the face, you associate the sensation (strong smell, moist feeling, and sharp taste) with the perception of grapefruit juice.

For sensations to be useful, we must assign meaning to them: "That face belongs to my girlfriend," or "I smell smoke; there must be a fire." And even though we may describe sensation and perception as two distinct events, there is no physical boundary in the brain marking the end of sensation and the beginning of perception. The processing of stimuli into sensations and perceptions happens quickly and automatically.