

Our five senses

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Unit 2: Teamwork Assignment, Team A Romy Brannen, Amy Eoff-Stanley, Kourtney Trehern, Amanda Basher, Nathan Palmer, Debra Lee
GeneralPsychology- 2027 May 15, 2010 Our Five Senses, Vision, Smell, Hearing, Taste, and Touch The following paper is an explanation of our five senses. How they work and why do we have them. Would a person be able to function if one or more senses were lost? All these questions are answered in following document. Our entire sensory system consists of numerous amounts of different sensors.

The main senses are vision, smell, hearing, taste, and touch. Those senses are important. They play a role in our everyday life. Losing one of these senses could be crucial. Let us start with vision. There are many different parts to the eye. The cornea is the window, which has a curve to it. This feature makes it possible to bend light and helps you see more clearly. The pupil works in two different ways. When increased the range of the pupil focuses on the distances of the objects. As to when decreased it is harder to focus on the objects.

Once the object passes the pupil it enters the lens, which can properly focus on the rear of the eye. Adaption allows the lens to change the thickness by flattening objects at a distance, or becoming rounded for closer objects. The eye's retina then sends the image to the brain. The retina has a thin layer of nerves in the back of the eyeball. They consist of two light sensitive cells known as the rods and cones. Rods are cylinder shaped cells that are highly sensitive to light. Cones are well cone shaped and they are for sharp focus and color.

The cones concentrate on the fovea, which allows us to focus on a certain object clearly. Rods and cones have to adaptations, dark and light. Darkness adaptation is leaving a well-lit room and entering a dim room. Light adaptation is the opposite. When stimulated, the eye triggers a neural response that is transmitted to the other cells in the retina, called the bipolar cells and the ganglion cells. Bipolar cells get information from the rods and cones and send the information to the ganglion cells, which collect the information, which then is sent to the brain by the optic nerve.

The optic nerve splits behind the eye, where the right side of both retinas goes to the right side of the brain and the left side of retinas goes to the left side of the brain. This turns the image right side up. | Smell is another one of our five senses. We can detect a variety of more than 10, 000 smells. With our sense of smell, we are able to detect different emotions as well. We release a certain chemical called pheromones. Once airborne, we cannot smell pheromones, yet our brain will detect them as a hidden form of communication.

This explains attraction between people. We receive smell by molecules entering the nasal passage where they meet with the receptor neurons of the nose. Each receptor neuron detects a certain type of smell, then travel to the brain. Our brain then combines all different odors into one particular smell. Next, the sense of taste detects 4 main tastes; sweet, sour, salty, and bitter. The brain combines the four tastes then processes into one taste recognizable taste. About once every 10 days, our taste buds are replaced. Because if our taste buds weren't constantly reproducing, we'd lose the ability to taste after we'd accidentally burned our tongues. " (Feldman, "

Understanding Psychology", 2008, p. 110). The following describes our skin. This has four additional senses. All of which are very important as well. The skin has receptors that respond to touch, pressure, and temperature. The sense of touch gives us information from our surroundings. A network of nerve endings and touch receptors controls it. One of the main receptors is mechanoreceptors that allow our bodies to feel pressure, vibrations, and textures.

Next is thermo receptors, it helps us to feel when something is hot or cold. Next are pain receptors, they detect pain. And last is proprioceptors, they help us to dress and feed ourselves. If one of those senses would be lost, for instance our sense of pain, we would not be able to feel if we got hurt, like burning our hand on a stove or even break a bone. With our sense of touch, we are able to feel when something is wrong and when something is okay. (Sense of touch: 2010, [www. hometrainingtools. com/article](http://www.hometrainingtools.com/article)). One of our major senses is sound erception, the sense of hearing. We sense sound with our ears. Vibrations detected in the ear change to electrical signals, and then transmitted by nerves to the brain. There, those signals are processed and recorded. Characteristics of sound include pitch and loudness. You may be wondering how the ear works. The way the ear works is as follows; sound waves vibrate the eardrum, just inside your ear. That sends waves through a fluid inside a narrow tube called the cochlea. That in turn vibrates tiny hairs which are tuned to the different pitches of the sound.

Information from the vibration of the hairs stimulates nerves that send the signals to the brain for processing. (Feldman, 2008, " Understanding Psychology", pp 105-106). The sound you hear has both pitch and loudness.

The pitch or tone of a sound wave is determined by its frequency, which is the wavelength divided by the speed of sound. The sound you hear consists of different frequencies or wavelengths, which determine their pitch. The amplitude of a sound wave determines its loudness. There is minimum amplitude required for you to hear a sound.

Sounds that are too loud can be very painful to us, or even damage the ear and cause loss of hearing. However, the ear has another function, which is balance. Two main structures make it possible for us to move without falling over. Semicircular canals are three tube-like structures of the inner ear containing fluid. When we move, the fluid moves inside those tubes as well. Therefore, our brain is able to recognize rotation or angular movement. Otoliths are crystals that move within the semicircular canals, which make it possible for our brain to sense body acceleration. Through vision, smell, hearing, touch, and taste, we can see they all work together. For example, a trip to the beach would stimulate our senses for a pleasurable day. Through our sense of vision we see the beauty of the beach. Hearing allows us to experience the sounds of the ocean and waves breaking. We can smell and taste the food of the vendors on the boardwalk. As well as feeling the sand on our feet when walking to the water. Conclusively we can see that each sense enhances the others.