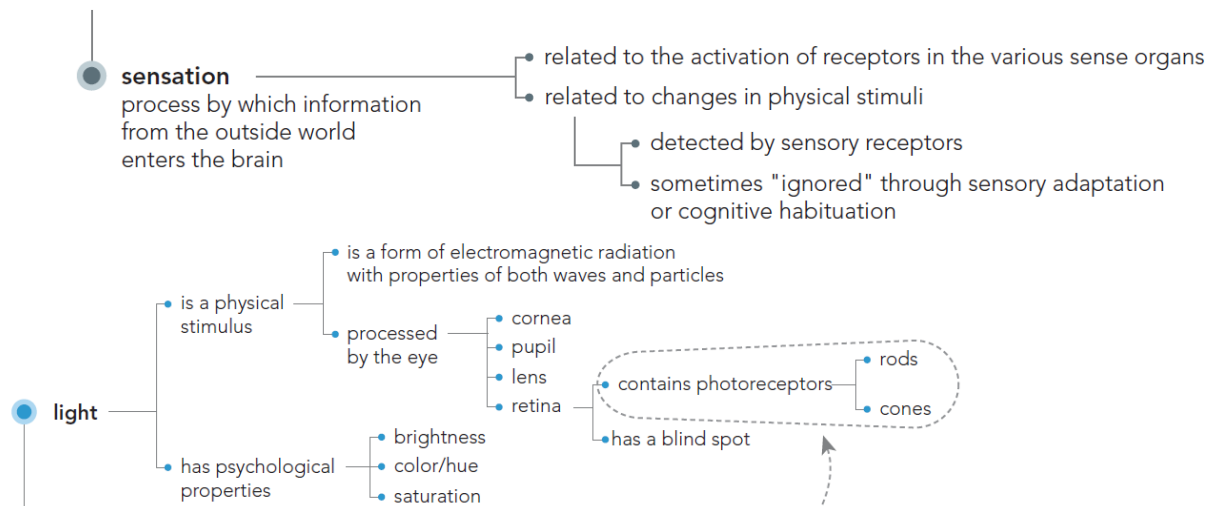
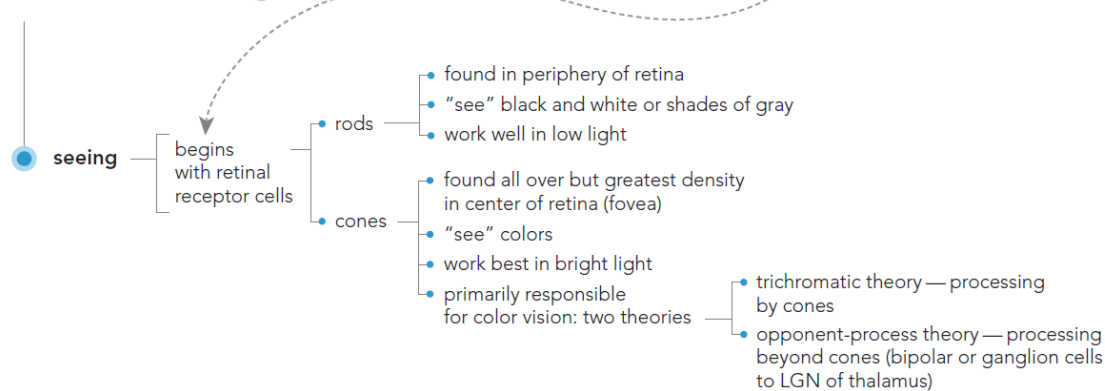


Sensation and Perception

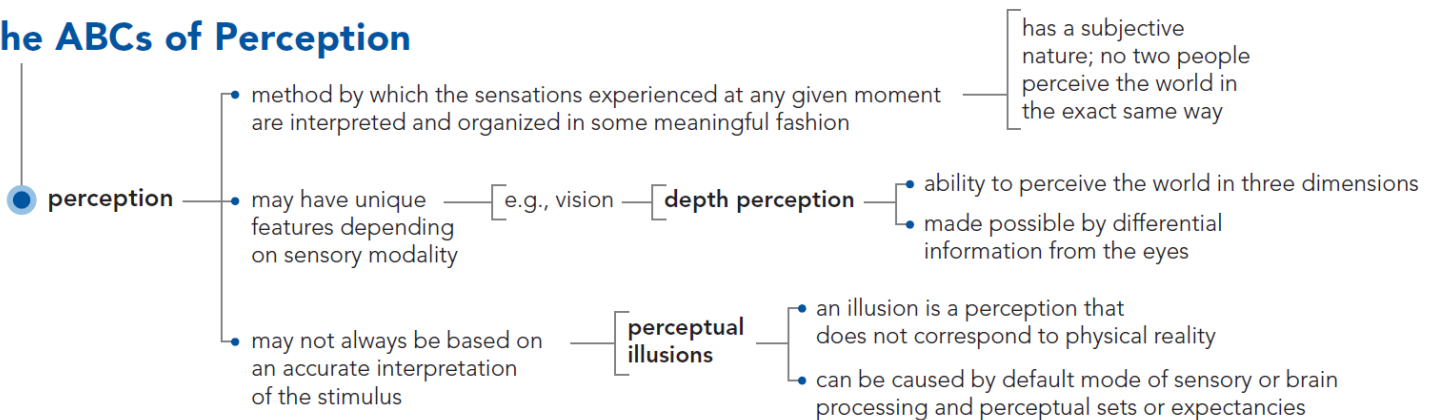
The ABCs of Sensation



The Science of Seeing

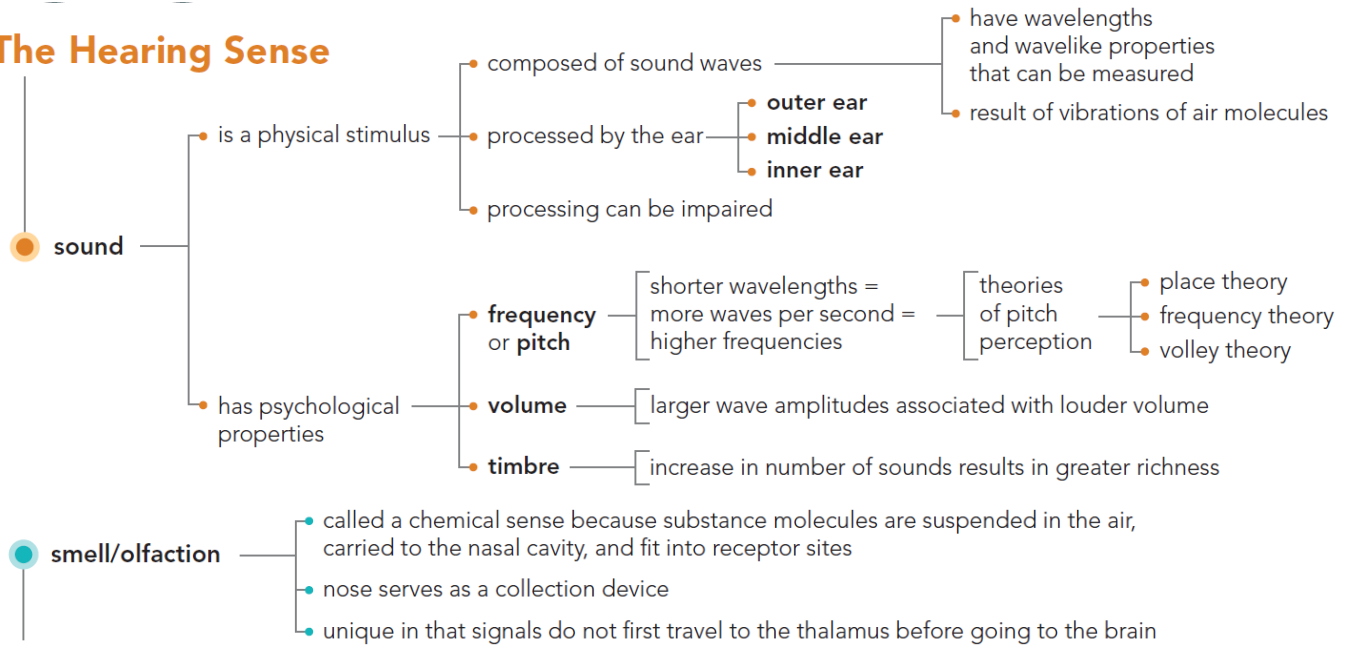


The ABCs of Perception



Sensation and Perception

The Hearing Sense



smell/olfaction

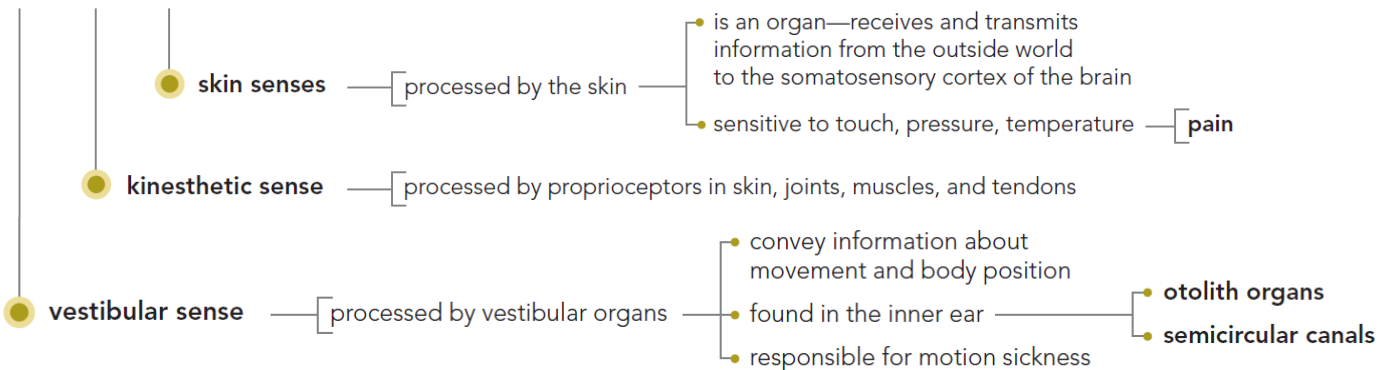
- called a chemical sense because substance molecules are suspended in the air, carried to the nasal cavity, and fit into receptor sites
- nose serves as a collection device
- unique in that signals do not first travel to the thalamus before going to the brain

Chemical Senses

taste/gustation

- made possible largely through the role of taste buds (taste receptor cells)
- five basic tastes (receptor types)
 - sweet
 - sour
 - salty
 - bitter
 - unami
- called a chemical sense because food molecules dissolve in saliva, which then fits into receptor sites

Somesthetic Senses



3 sensation and perception

3.1

p. 92

The ABCs of Sensation



sensation

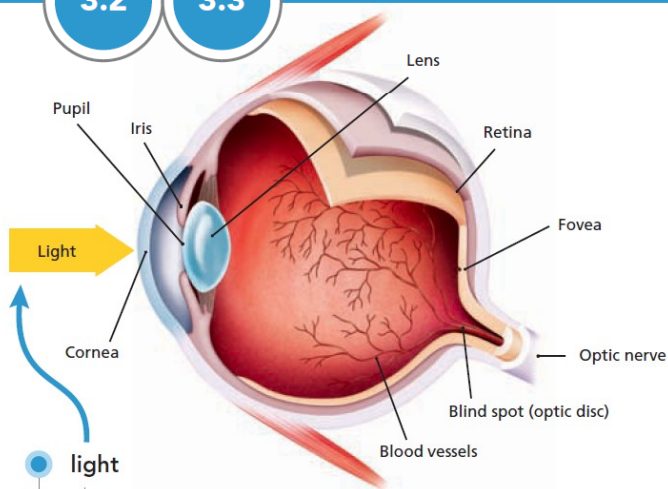
process by which information from the outside world enters the brain

- related to the activation of receptors in the various sense organs
- related to changes in physical stimuli

3.2

3.3

p. 100



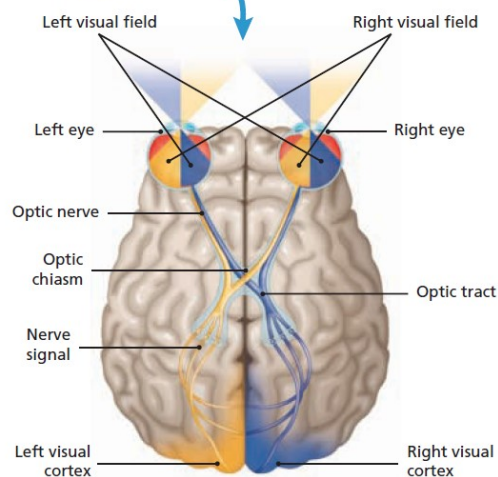
light

- is a physical stimulus
 - is a form of electromagnetic radiation
 - processed by the eye
- has psychological properties
 - brightness
 - color/hue
 - saturation

The Science of Seeing

seeing

- begins with retinal receptor cells
 - rods
 - cones



3.4

3.5

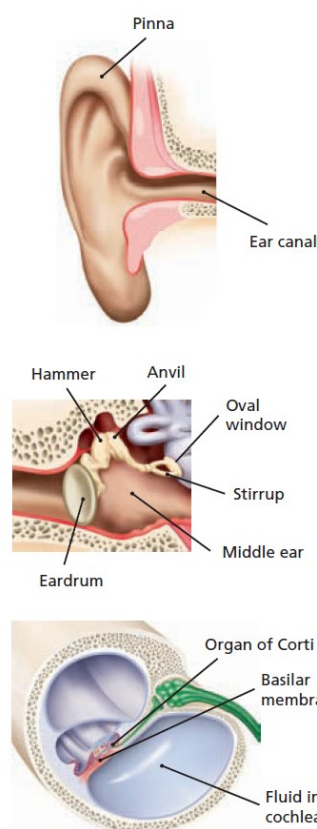
p. 104



sound

- composed of sound waves
- is a physical stimulus
 - processed by the ear
 - processing can be impaired
- has psychological properties
 - frequency or pitch
 - volume
 - timbre

The Hearing Sense



outer ear

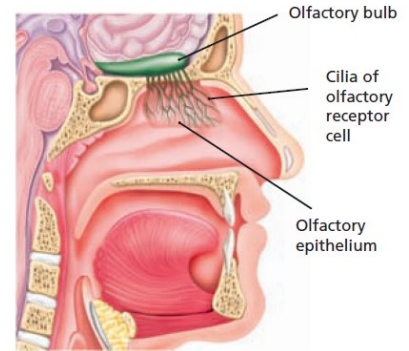
middle ear

inner ear

smell/olfaction

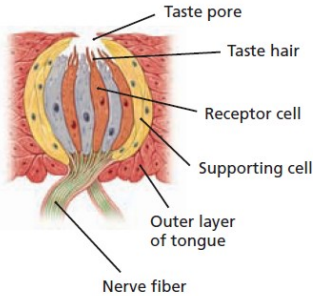
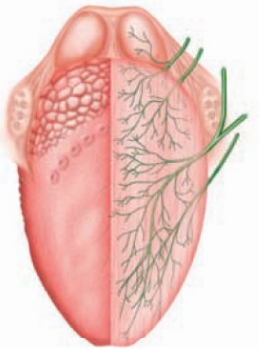
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Chemical Senses



taste/gustation

- made possible largely through the role of taste buds (taste receptor cells)
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Somesthetic Senses

skin senses

processed by the skin

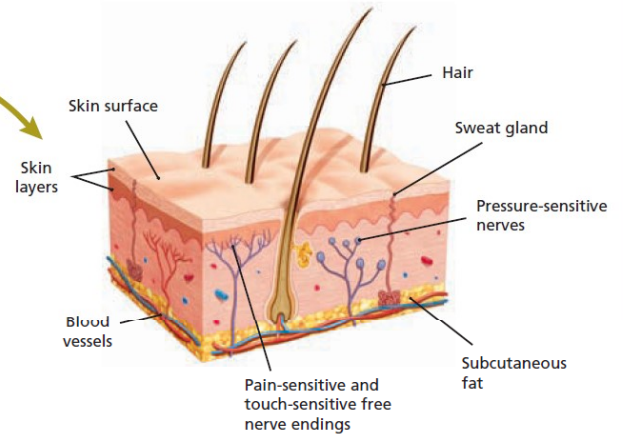
kinesthetic sense

processed by proprioceptors in skin, joints, muscles, and tendons



vestibular sense

processed by vestibular organs



The ABCs of Perception

perception

- method by which the sensations experienced at any given moment are interpreted and organized in some meaningful fashion
- may have unique features depending on sensory modality
- may not always be based on an accurate interpretation of the stimulus

