

Smell

Smell is the sense most directly tied to emotion. The olfactory nerves run directly to the part of the brain that processes emotion, NOT THOUGHT. This is not the case for skin, eyes, ears, etc.

- No message through the thalamus (thinking part)
- Directly into the amygdala (emotional part)
- Smell may cause an emotion, before it elicits a meaning of the odor
- You first think of an odor as pleasant or unpleasant
 - Identify it
 - Remember it
- Odors can bring back very vivid/accurate memories
 - Cologne/perfume of a loved one
 - Smell of a family home

Receptors

- Sense odor in the upper part of the nose
- pass through the nose or mouth
- Olfactory rods which run directly to the brain
- Cilia (hair-like), located at the end of the rods
- Olfactory Bulb: processes odor information
- air passes over the cilia and some of the molecules “lock on” to the cilia/rod to fire off an input message to the brain
- spread out our receptors = size of stamp (20 million)
- Spread out dogs receptors = size of bandana (200 million)
- Anosmia = lose all sense of smell
 - caused by injury, viral infection

7 Primary odors

- Musky
- Floral
- Camphor (moth balls)
- Peppermint
- Ethereal (dry cleaning fluid)
- Pungent (vinegar)
- Putrid (rotten eggs)

- Most smells are a mixture of these
 - We can discriminate 10,000
 - But have more difficulty in putting a name to a smell (90% - coffee; 80% - leather; 70% mustard; 60% bologna; % of people who could identify these smells)
 - Some researchers believe that we each have a “odor signature” which is related to our genes
 - Many people lack the ability to smell specific substances
- 37% of men, 30% of women, could not detect sweaty armpits
- This seems to be related to your genes, and the amount of sex hormones present in your body

Gender

Women are superior in terms of odor detection and identification

- This improves “up to 1,000” times during the menstrual cycle

Age

The sense of smell may diminish in **SOME** people

- More difficult to detect odors

Sharpest during the **20s-40s**, really drops off after 80