

Cognitive Neuropsychology- Structure of the brain 9/2

Vocab

Anterior: front (ex: frontal lobe)

Posterior: back (occipital)

Rostral: towards head

Caudal: towards back (tail)

Inferior: below

Superior: above

Dorsal: back

Ventral: front

Medial: middle

Lateral: off to the side

- Ipsilateral: same side

- Contralateral: opposite side

Proximal: nearby

Distal: distant

Nervous System

Medulla (oblongata): cranial nerves leave brain enter spine

- reticular operating system (ex: sleep and wake)

Cerebellum: motor movements, opposing muscle pairs

Midbrain

Inferior and superior colliculi (colliculus)

(sounds) (vision)

- spatial awareness

Hypothalamus: drives (feeding, fleeing, mating, fighting)

[Difference between Physiological and Psychological:

Physio: hunger, tired

Psych: appetite, sleepy]

Thalamus: Joins sensory info together (schizophrenia- hear voices, internal speech)

Basil Ganglia: motor control (damage: tremors/spasms)

Limbic System: motivation, emotions, emotional memories

-Make sense of new stimuli

- hypothalamus

- amygdala: fight/flight (fear/rage)

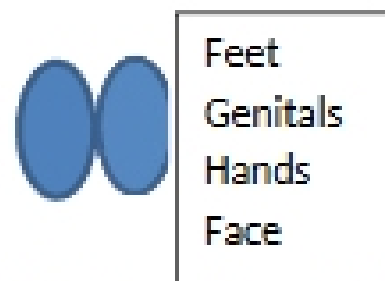
[Triune Brain: 1. Reptile brain 2. Mammalian brain 3. Neomammalian cortex]

Central sulcus: Valley through parietal lobe

- anterior: motor
- posterior: sensory

[Phantom limbs: increased ability to use prosthesis]

Topographic mapping:



- Left parietal lobe receives info from Right, controls right
- Hemiplegia: paralysis on ½ of body

Visual cortex:

- Strokes

- o Quadrantopia: blindness in one quadrant of visual field.
- o Hemianopia: ½ visual field blindness
- o Scotoma: random blind spot in visual field

- mapping: tonotopic (different regions refer to different pitches)

Gustatory and Smell:

- Taste + smell = flavor
- Olfactory bulb: smell: ours is not as acute

Association areas: (agnosia) can't recognize items visually

Frontal lobe damage: planning/organization

- Psychological inertia: little initiative/ lots of perseverance (starts a behavior only when prompted, continues that behavior even when it was changed)
- alexia/agraphia: lose ability to read/write (language is auditory)