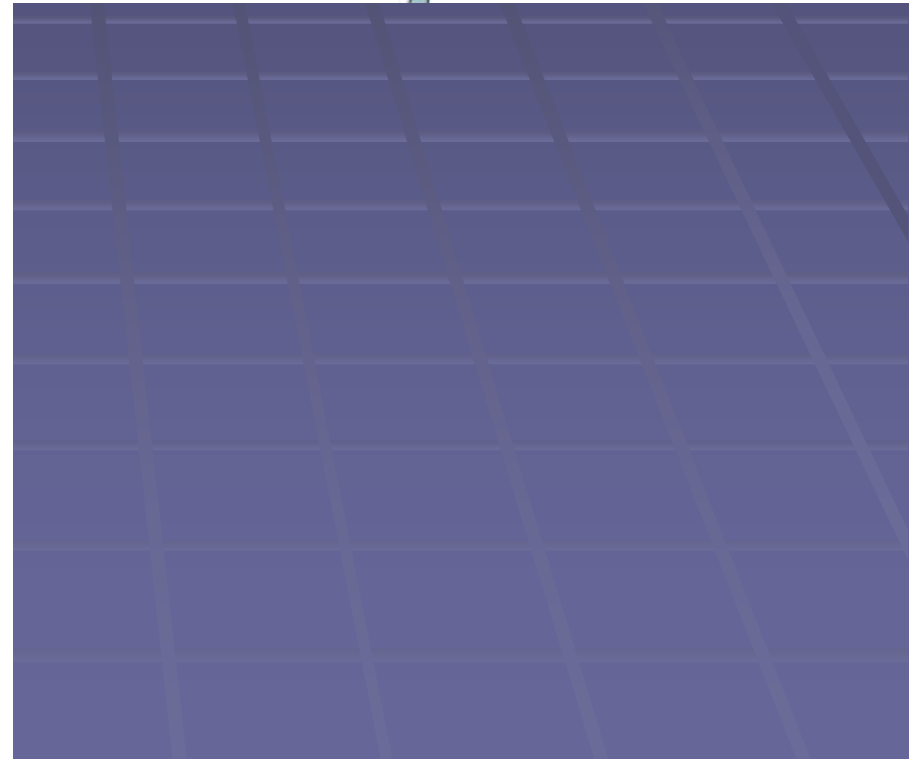
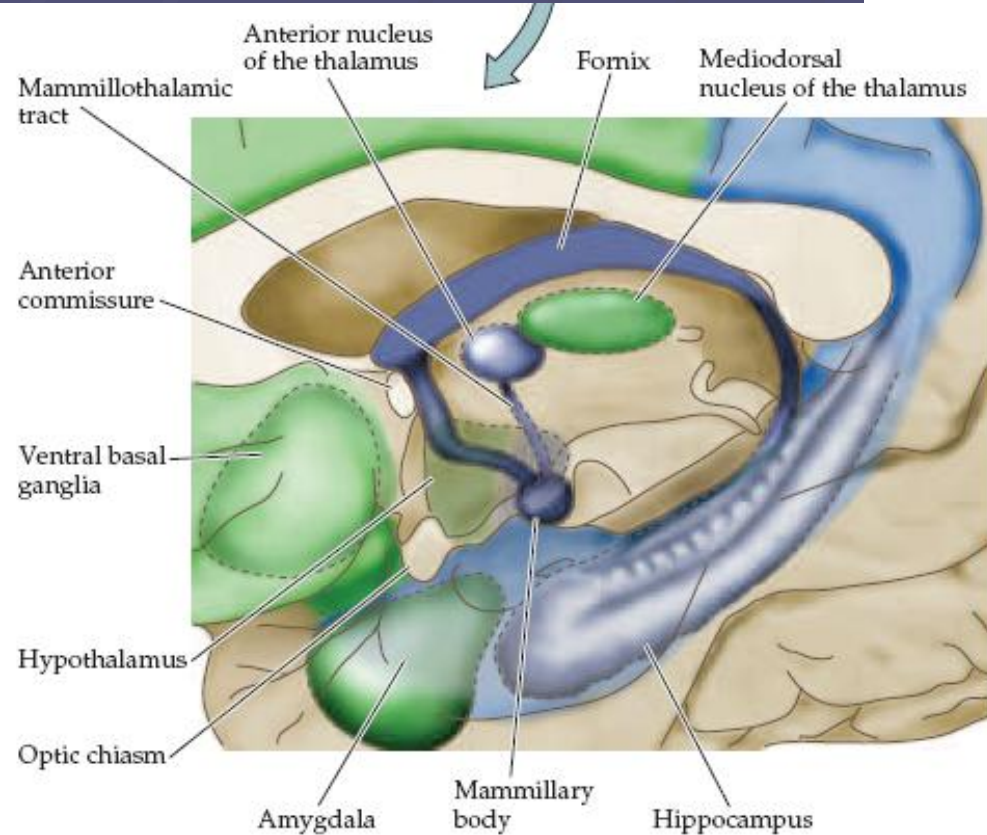
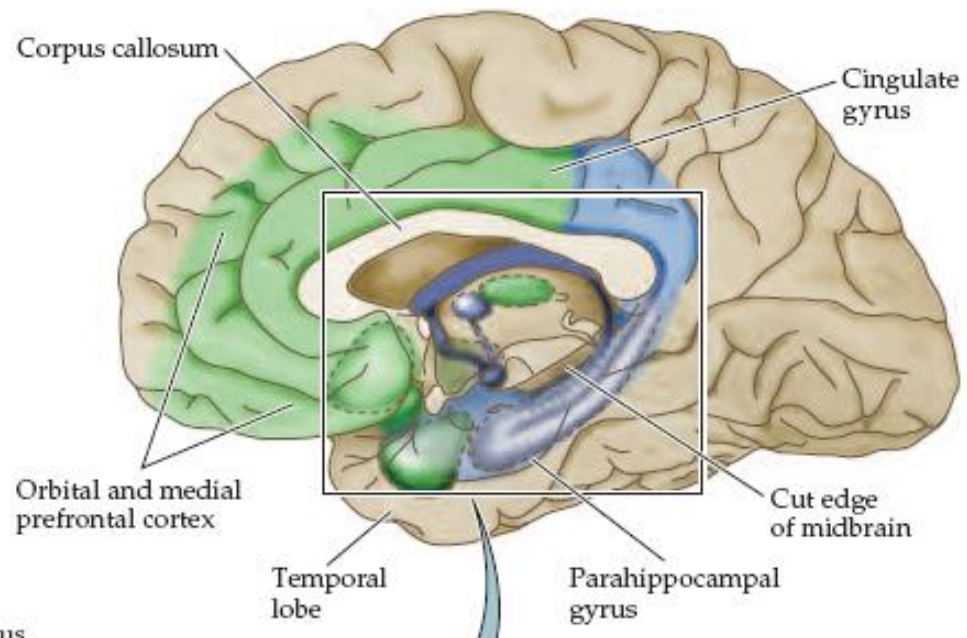
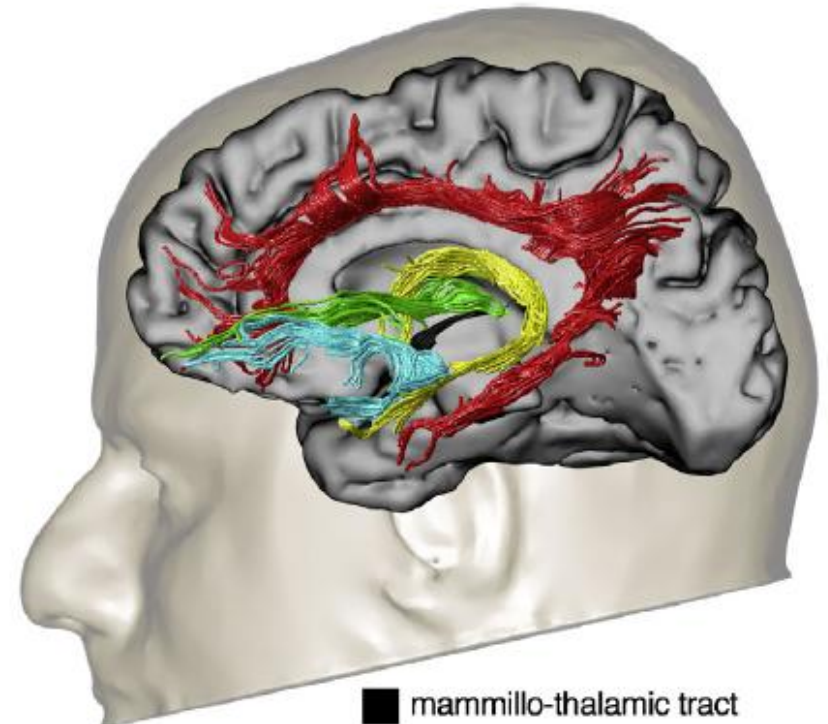
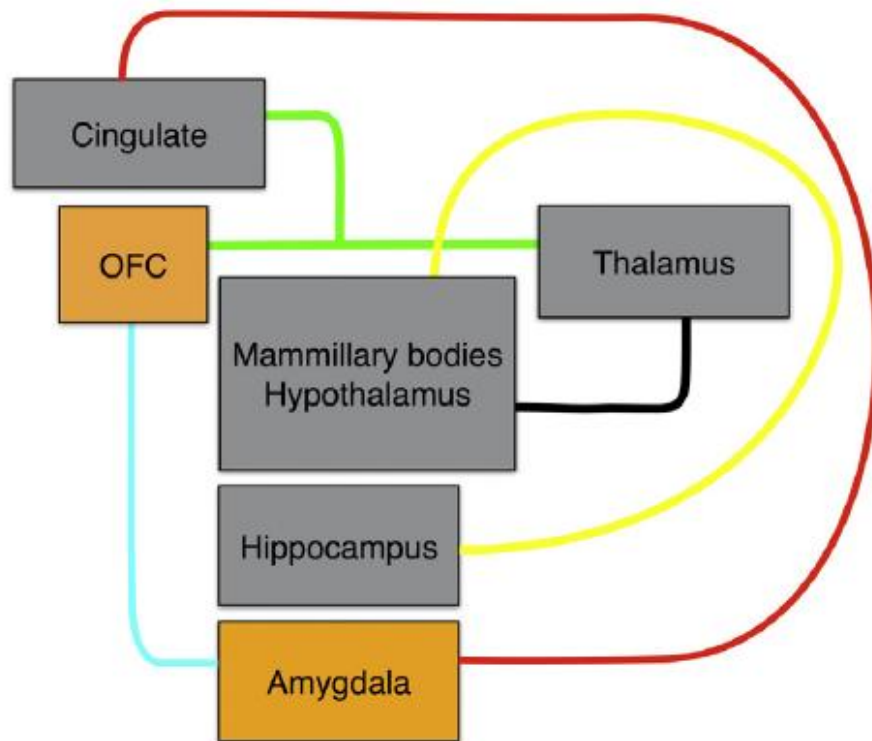
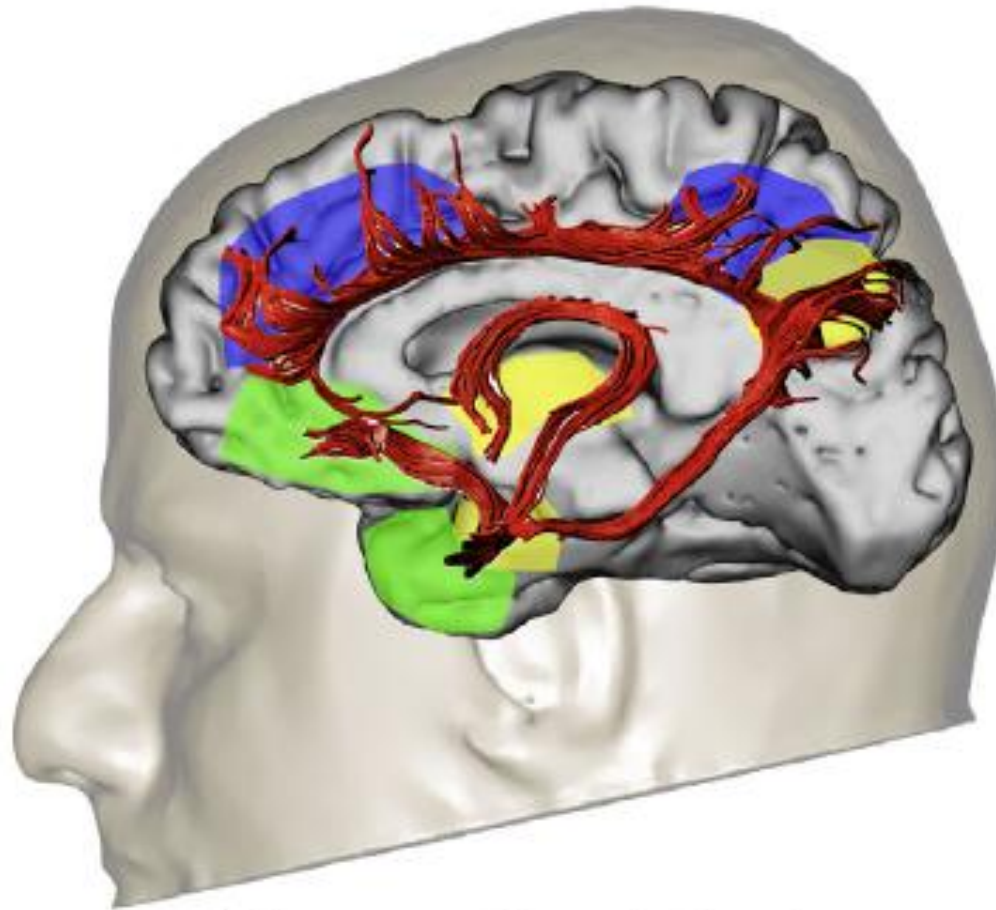


Limbic system





- cingulum
- fornix
- mamillo-thalamic tract
- anterior thalamic projections
- uncinate fasciculus



■ hippocampal-diencephalic and
parahippocampal-retrosplenial
network

■ temporal-amygdala-
orbitofrontal network

■ medial 'default network'

Limbic system functions

- Memory
- Spatial orientation
- Multimodal sensory integration
- Emotion processing
- Motivation and behavioral selection
- Self knowledge
- Default network

Limbic system functions

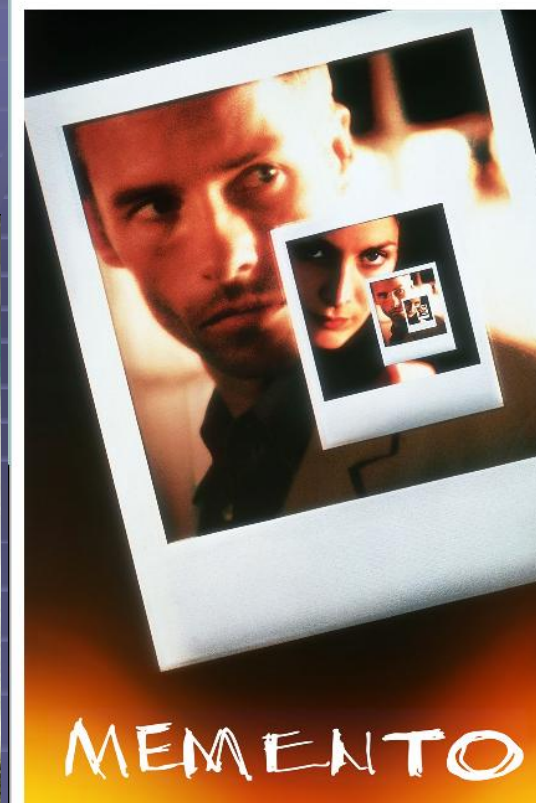
- Memory
- Spatial orientation

Hippocampal-dienchphalic-
parahippocampal- retrospinal network

- Multimodal sensory integration
- Emotion processing
- Motivation and behavioral selection
- Self knowledge
- Default network

Hippocampal-diencephalic- parahippocampal-retrosplinal network

- Alzheimer's disease
- Amnesias
- Korsakoff syndrome



Henry Gustav Molaison (H.M.)



- Surgical removal of left and right medial temporal lobes (hippocampus, parahippocampal gyrus)
- Anterograde amnesia

Korsakoff Syndrome

- Neuronal degeneration in the mammillary body, dorsomedial thalamic n. & hippocampus.
- Often seen in chronic alcoholics: due to thiamine deficiency.
- Both short- and long-term memory loss.
- Confabulation.
- Wernicke-Korsakoff syndrome: profound memory loss & learning difficulties.

Limbic system functions

- Multimodal sensory integration
- Emotion processing
- Motivation and behavioral selection

Temporal-amygdala-orbitofrontal

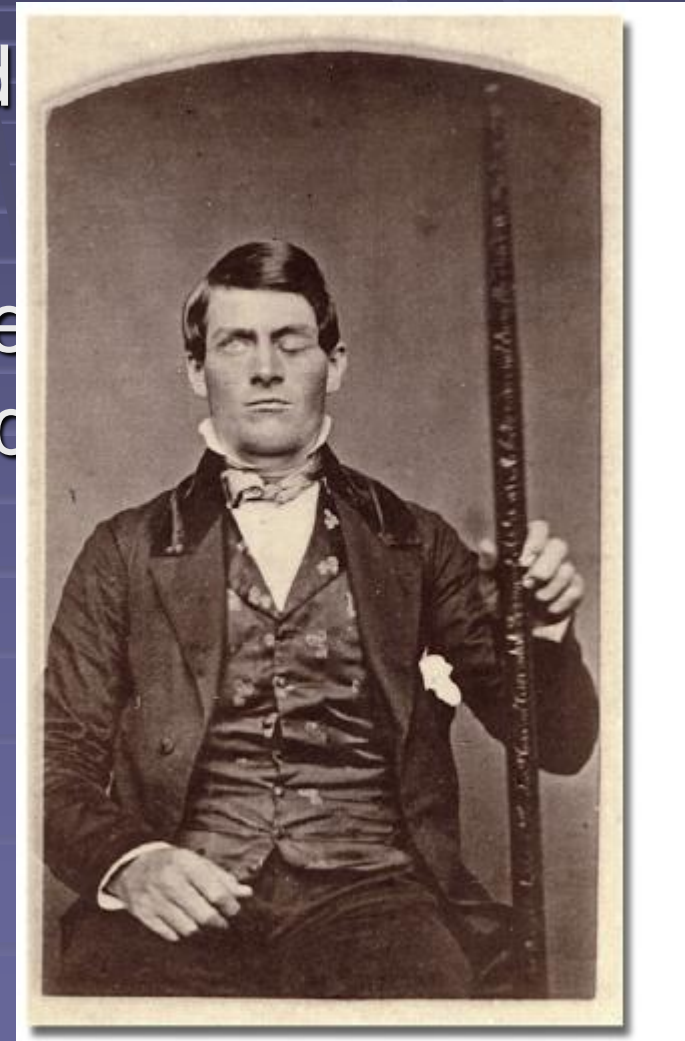
- Self knowledge
- Default network

Temporal-amygdala-orbitofrontal

- semantic deficits (semantic dementia)
- language difficulties
- personality changes and other behavioral symptoms (e.g. aggression, disinhibition)
 - Kluver-bucy syndrome
 - Psychopathy
 - Bipolar affective disorders

Temporal-amygdala-orbitofrontal

- semantic deficits (semantic d
- language difficulties
- personality changes and other symptoms (e.g. aggression, c
 - Klüver-Bucy syndrome
 - Psychopathy
 - Bipolar affective disorders



Ablation of the amygdala bilaterally

- *Klüver-Bucy Syndrome*
 - Hyperphagia
 - Hyperorality
 - Hypersexuality
 - Hypermetamorphosis
 - Agnosia: visual, tactile & auditory
 - Dementia

Limbic system functions

- Self knowledge
- Response selection and action monitoring
- Default network

Dorsomedial Default network