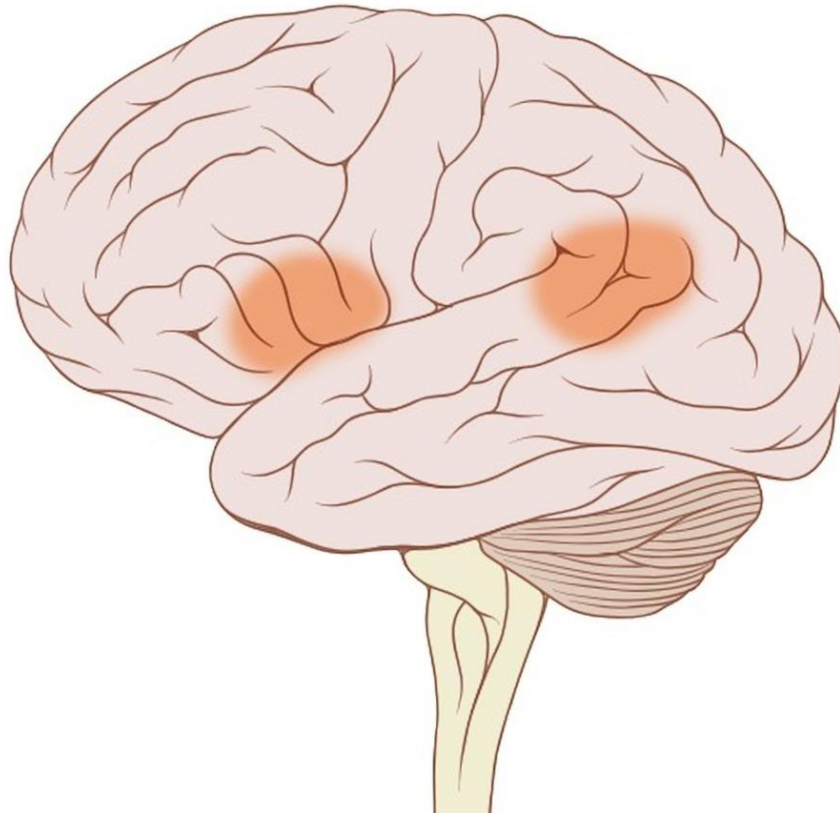


# Eloquent Areas

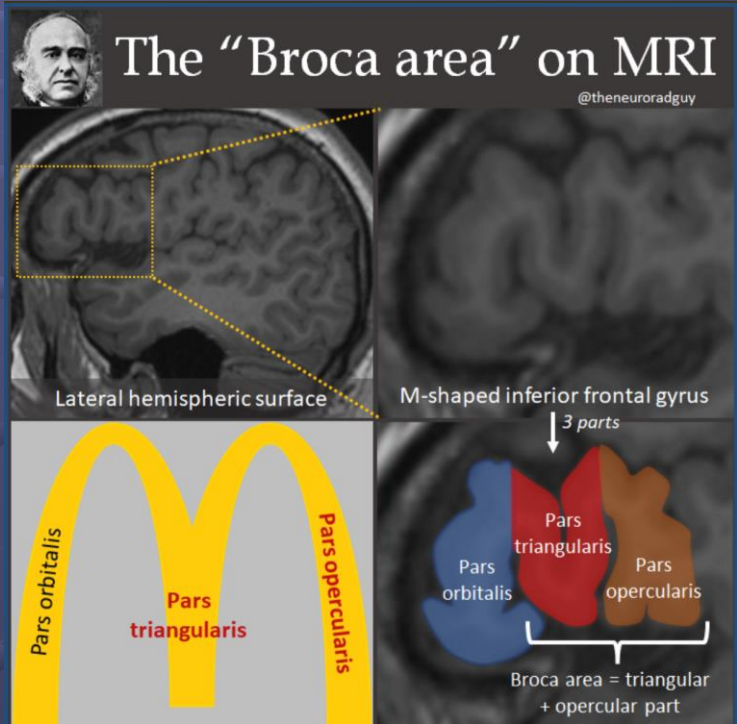
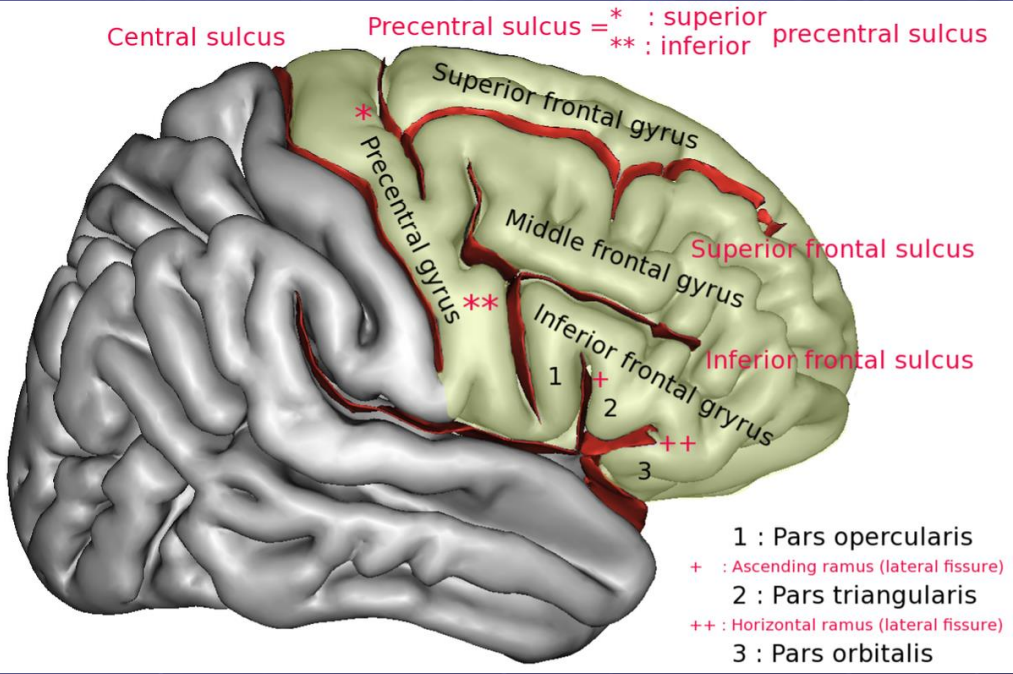
**Broca**  
(Brodmann area 44)

**Wernicke**  
(Brodmann area 22)

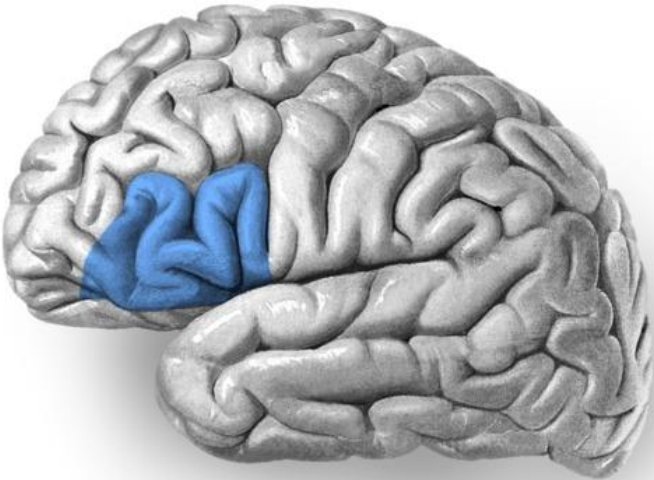


# Broca's area

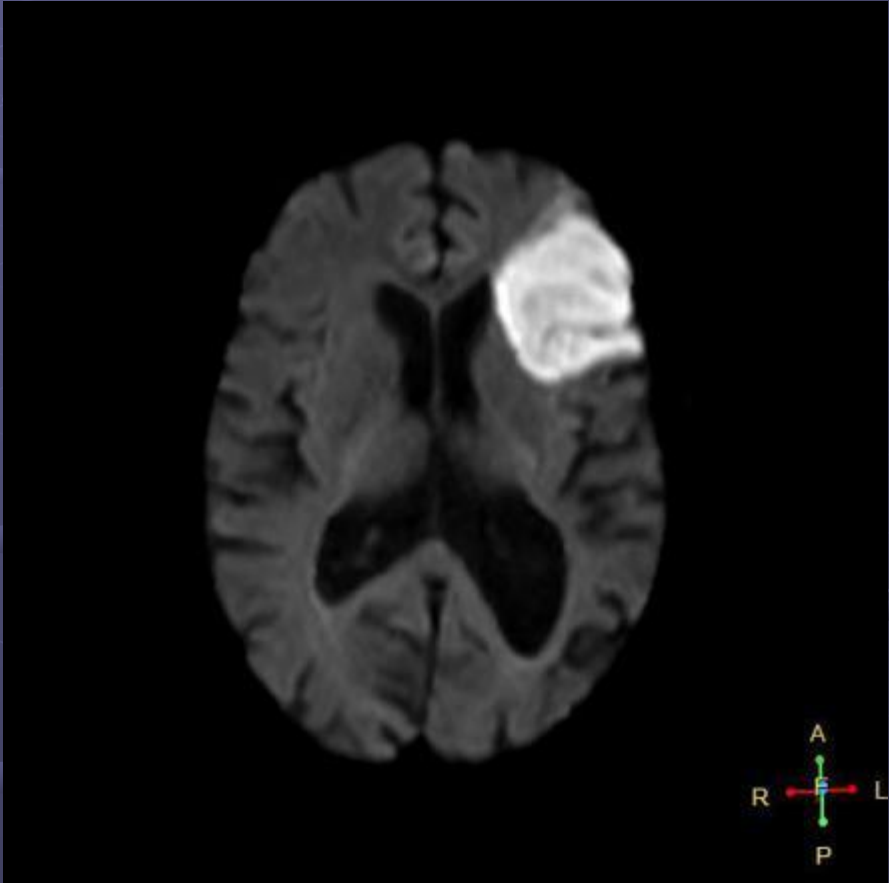
- **Lateral frontal lobe** in the dominant hemisphere (**Usually, the left**) concerned with the production of speech.
- Broca's area is located in the **posterior inferior frontal gyrus** (pars opercularis and pars triangularis)
- The brain with functions linked to speech production.
- Lost the ability to speak after injury to the posterior inferior frontal gyrus of the brain.
- Expressive aphasia
  - Know "what they want to say, they just cannot get it out".



# Inferior frontal gyrus



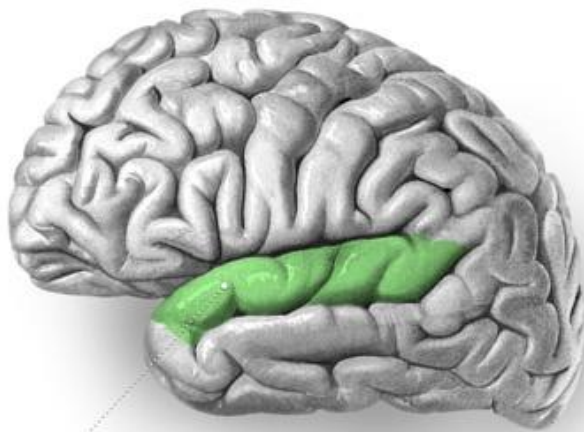
Adapted from illustration from "Sobotta's Textbook and Atlas of Human Anatomy" 1908, now in the public domain.



# Wernicke's area

- Involved in the understanding of written and spoken language.
  - Posterior section of the **superior temporal gyrus (STG)**
- Dominant cerebral hemisphere
  - Left hemisphere in about **95% of right-handed individuals** and
  - **60% of left-handed** individuals.
- Fluent aphasia.
  - Major impairment of language comprehension, while speech retains a natural-sounding rhythm and a relatively normal syntax.

## Superior temporal gyrus



Superior temporal gyrus

Adapted from illustration from "Sobotta's Textbook and Atlas of Human Anatomy" 1908, now in the public domain.

