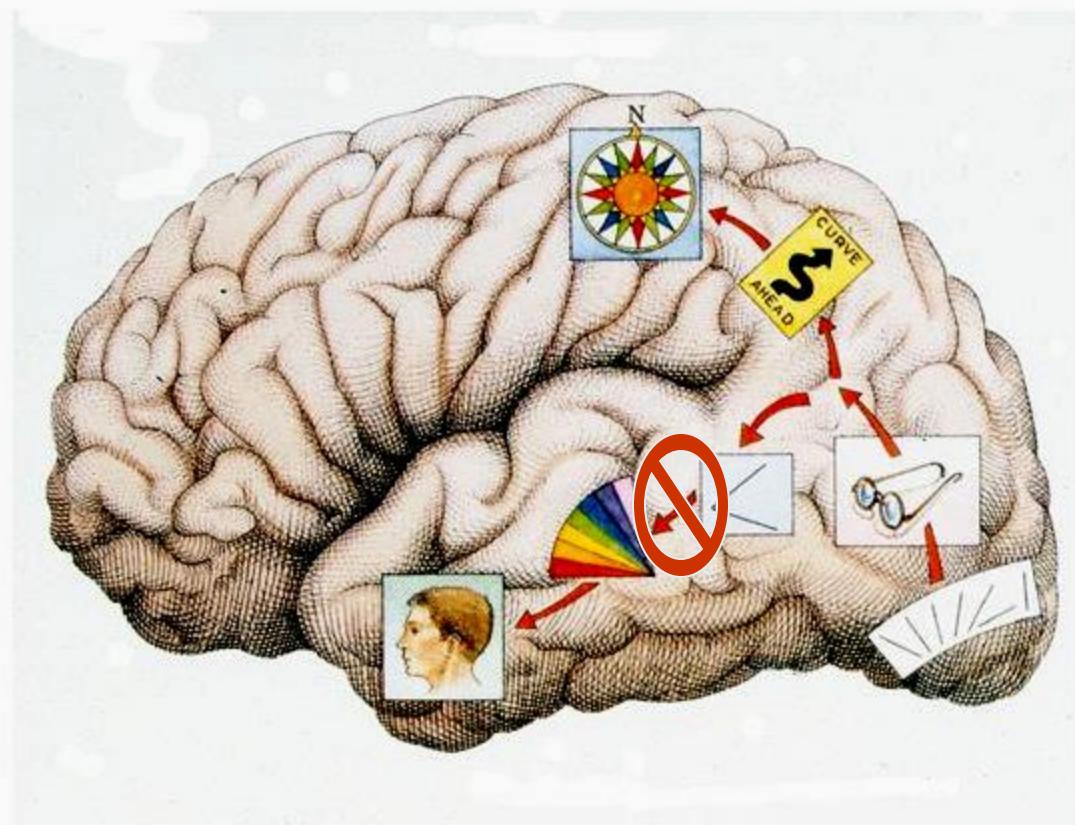
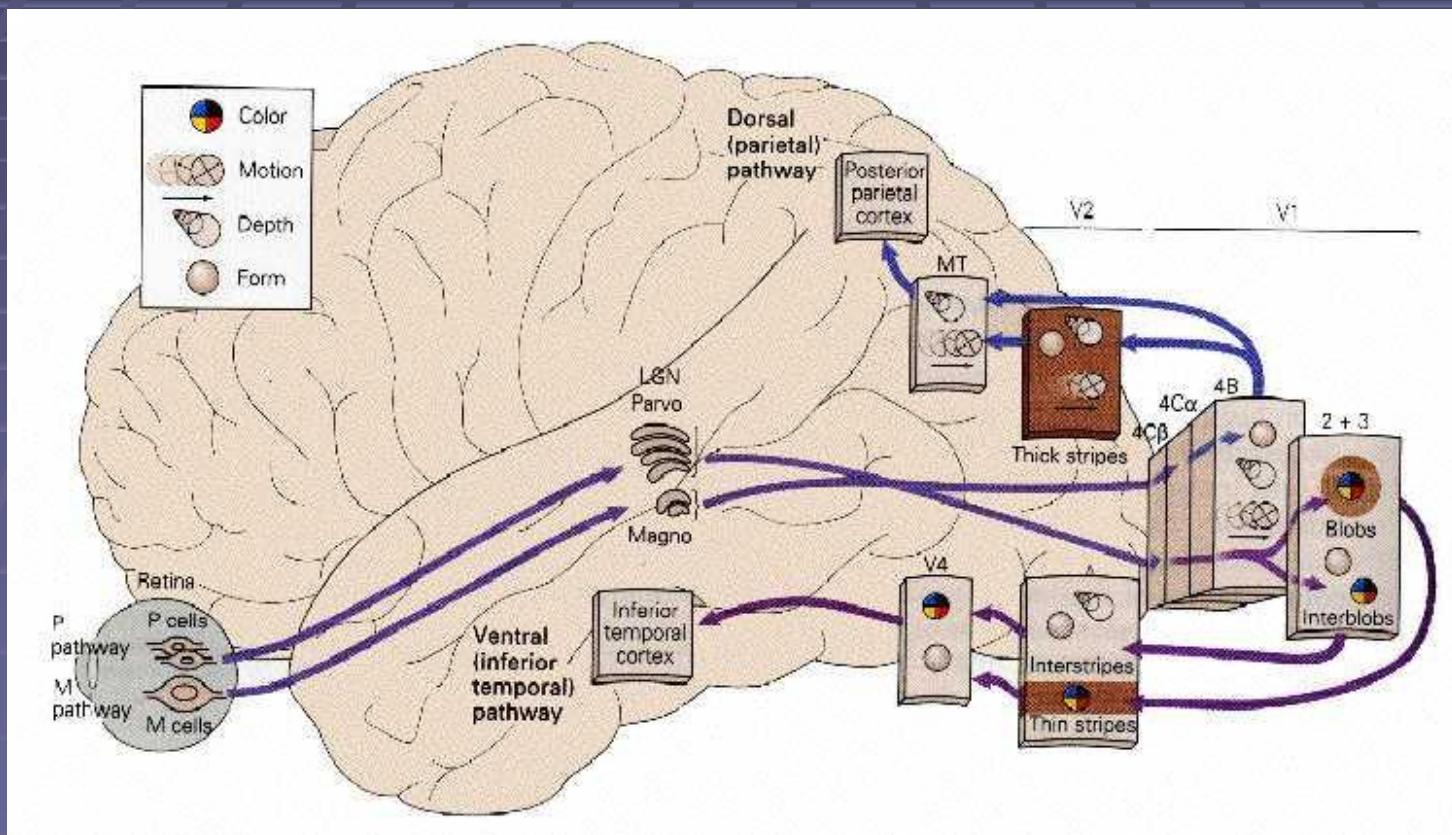


## What and where pathways



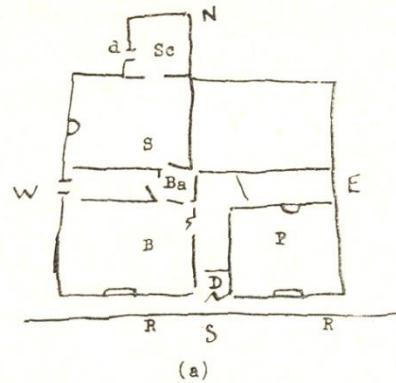
# Damage to “where” pathway



Spatial  
relationships  
distorted



# Spatial relationships distorted



(a)

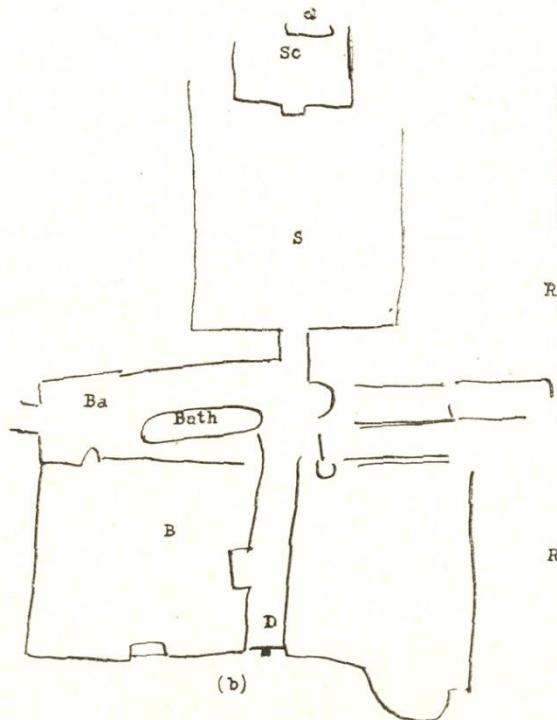


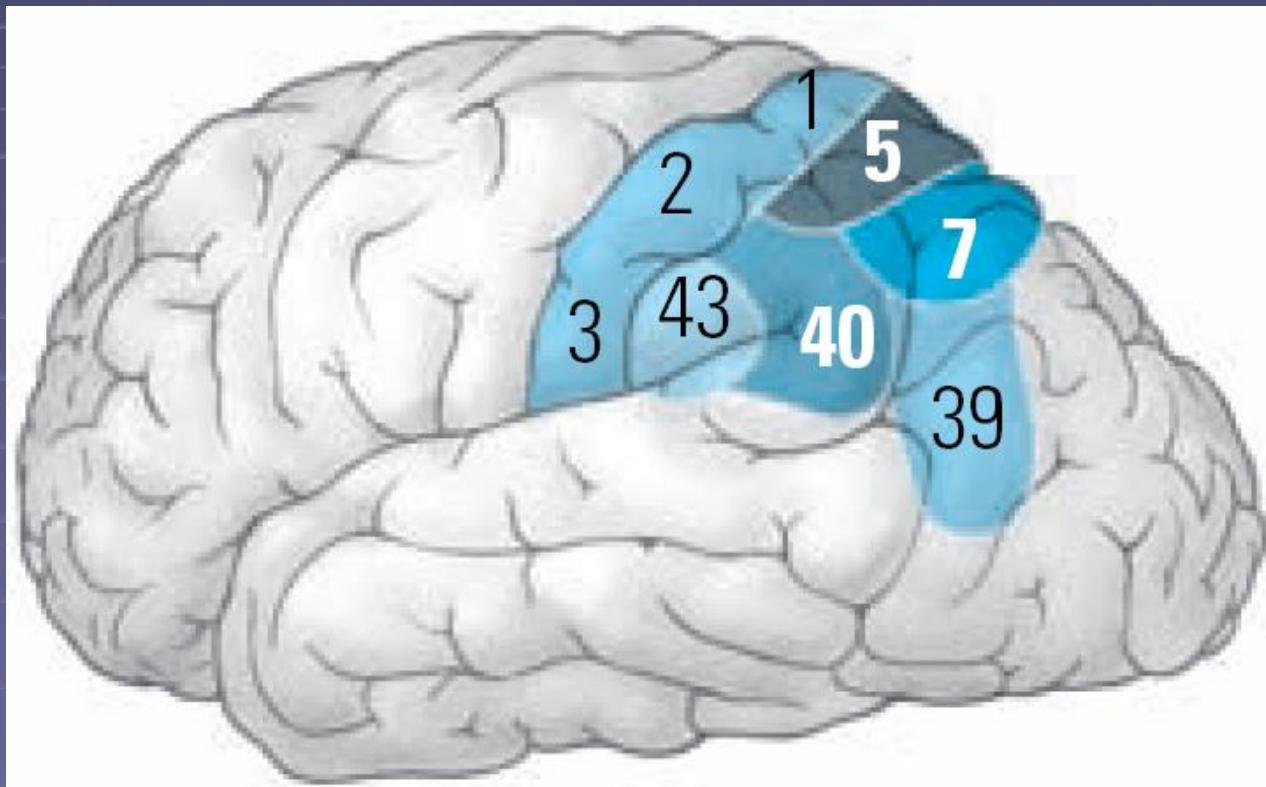
FIG. 8.—Ground-plan of House by Case 2—(a) Drawing by patient's wife;  
(b) Drawing by patient.



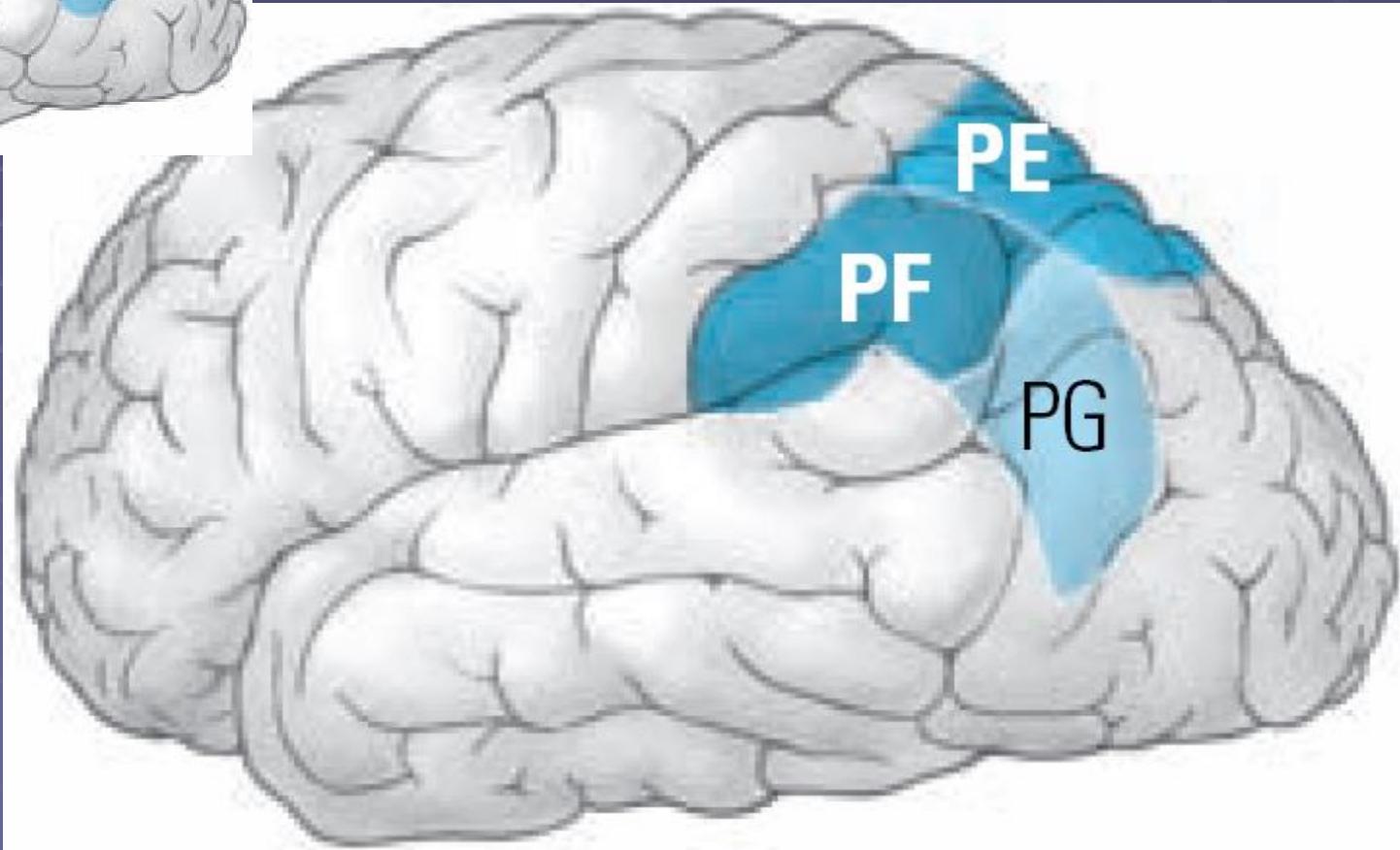
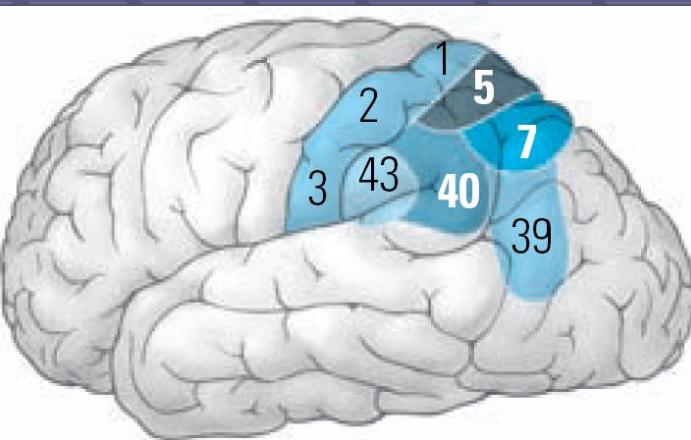
*Assembly of "Manikin" Figure by Case 2. A. Correct Assembly.  
B. Assembly by Patient.*

Time, sequence, attention and  
space

# Parietal lobe

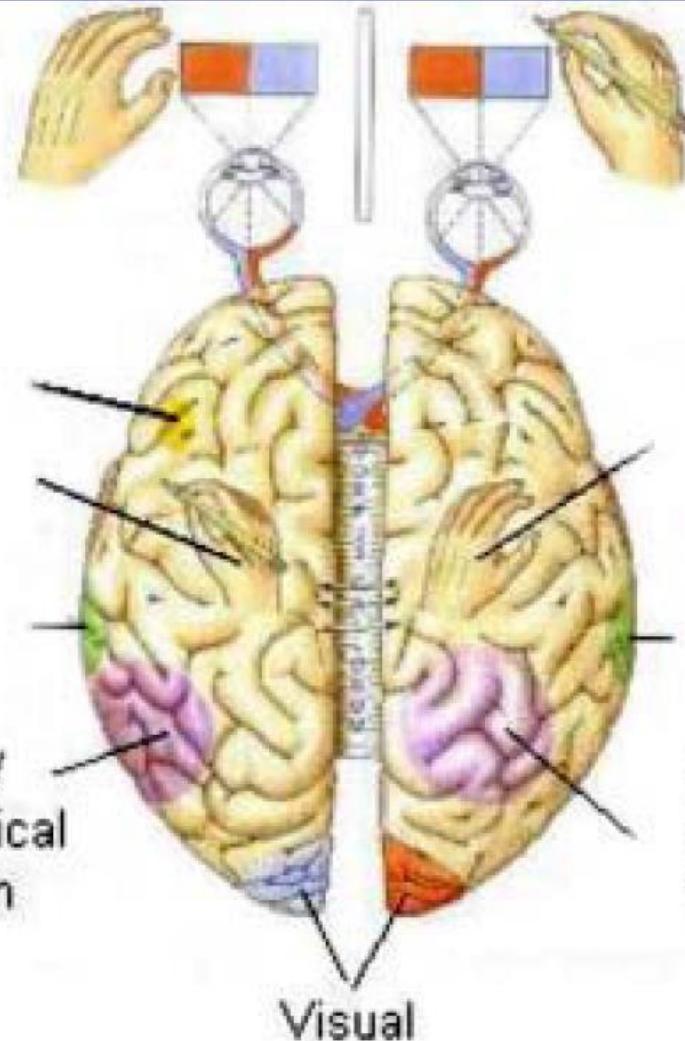


# Parietal lobe



## Controls Right Side of Body

Speech  
Writing  
Hearing  
Language/  
Mathematical  
Calculation

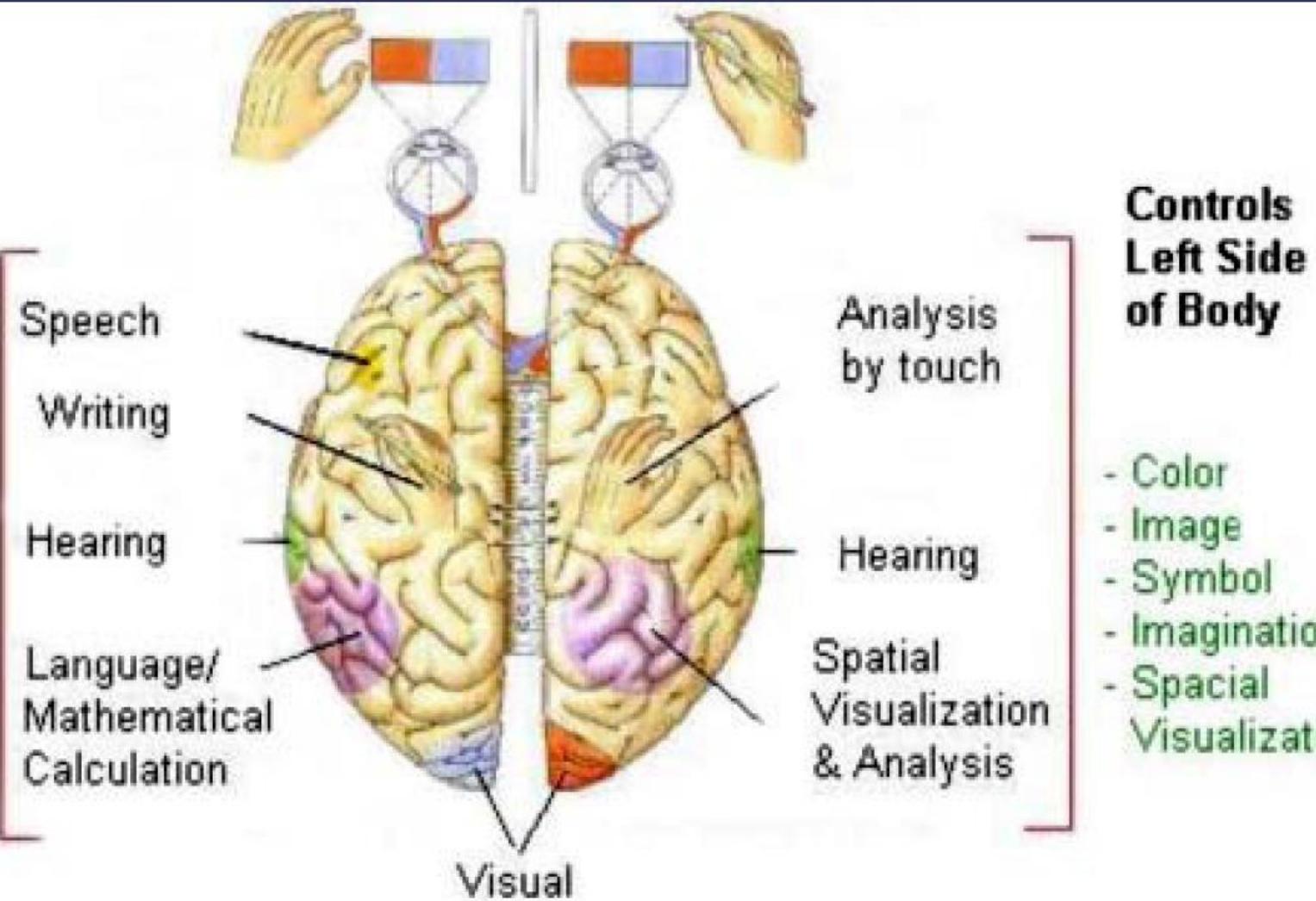


## Controls Left Side of Body

Analysis  
by touch  
Hearing  
Spatial  
Visualization  
& Analysis

## Controls Right Side of Body

- Logic
- Language
- Numbers
- Analysis
- Reasoning



## Controls Left Side of Body

- Color
- Image
- Symbol
- Imagination
- Spacial Visualization

# Left and Right Brain Functions

## Left-Brain Functions

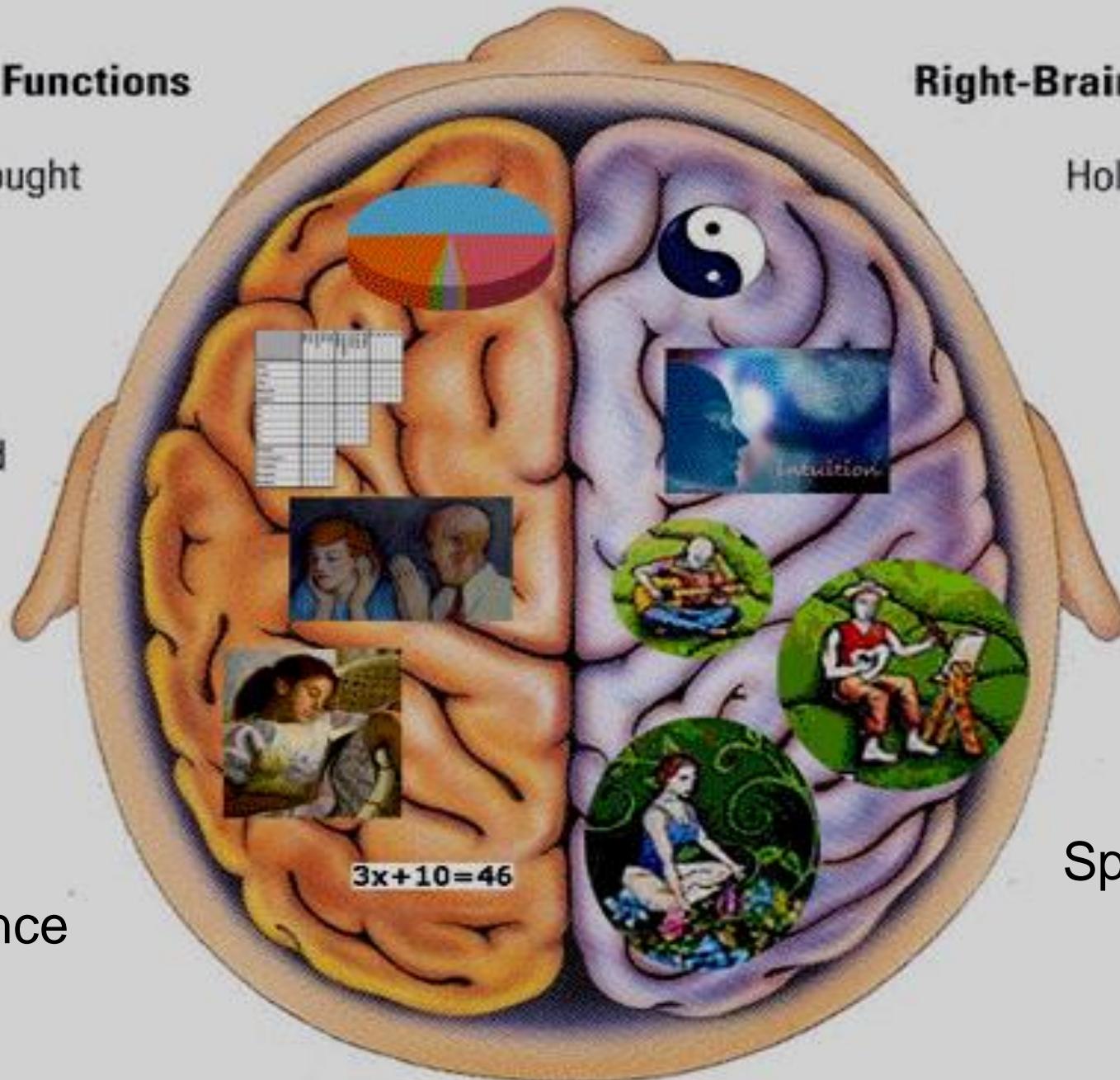
Analytic thought

Logic

Language

Science and  
math

Time /  
sequence



## Right-Brain Functions

Holistic thought

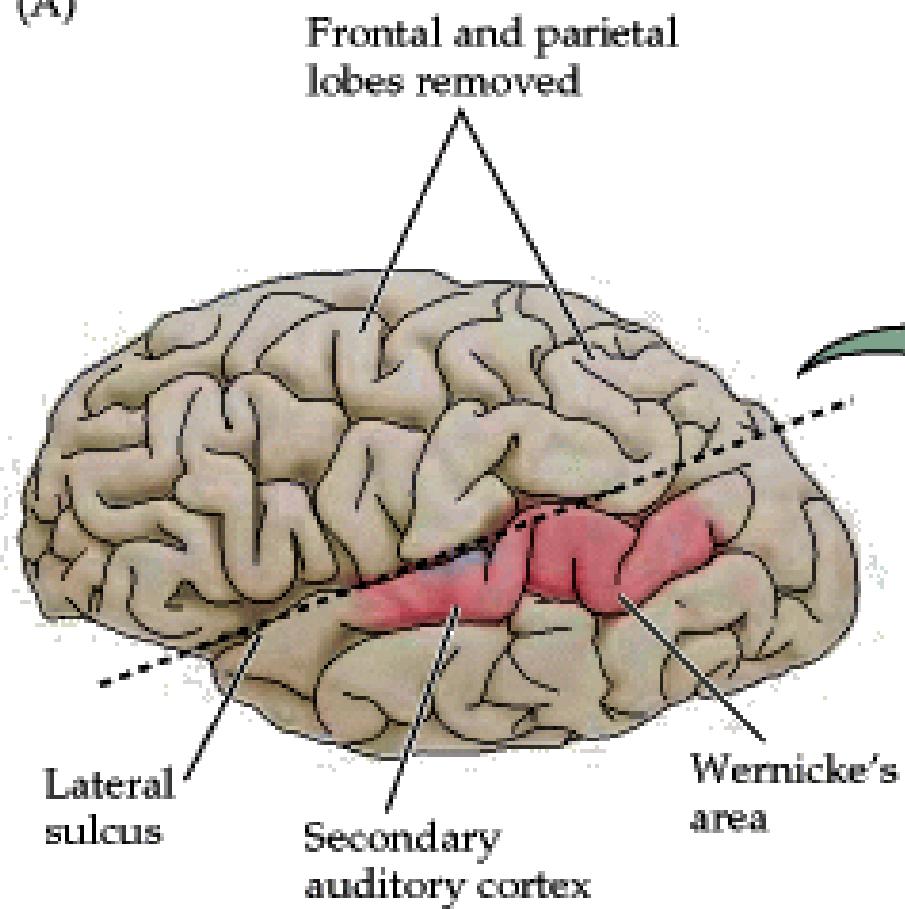
Intuition

Creativity

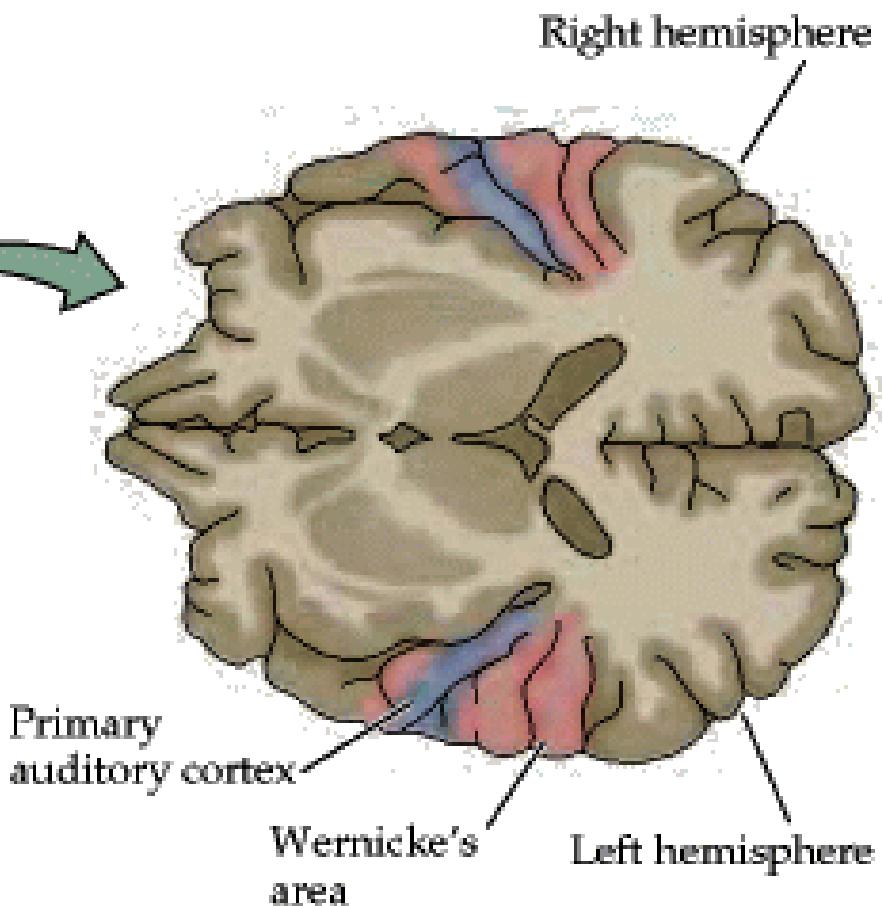
Art and  
music

Spatial

(A)

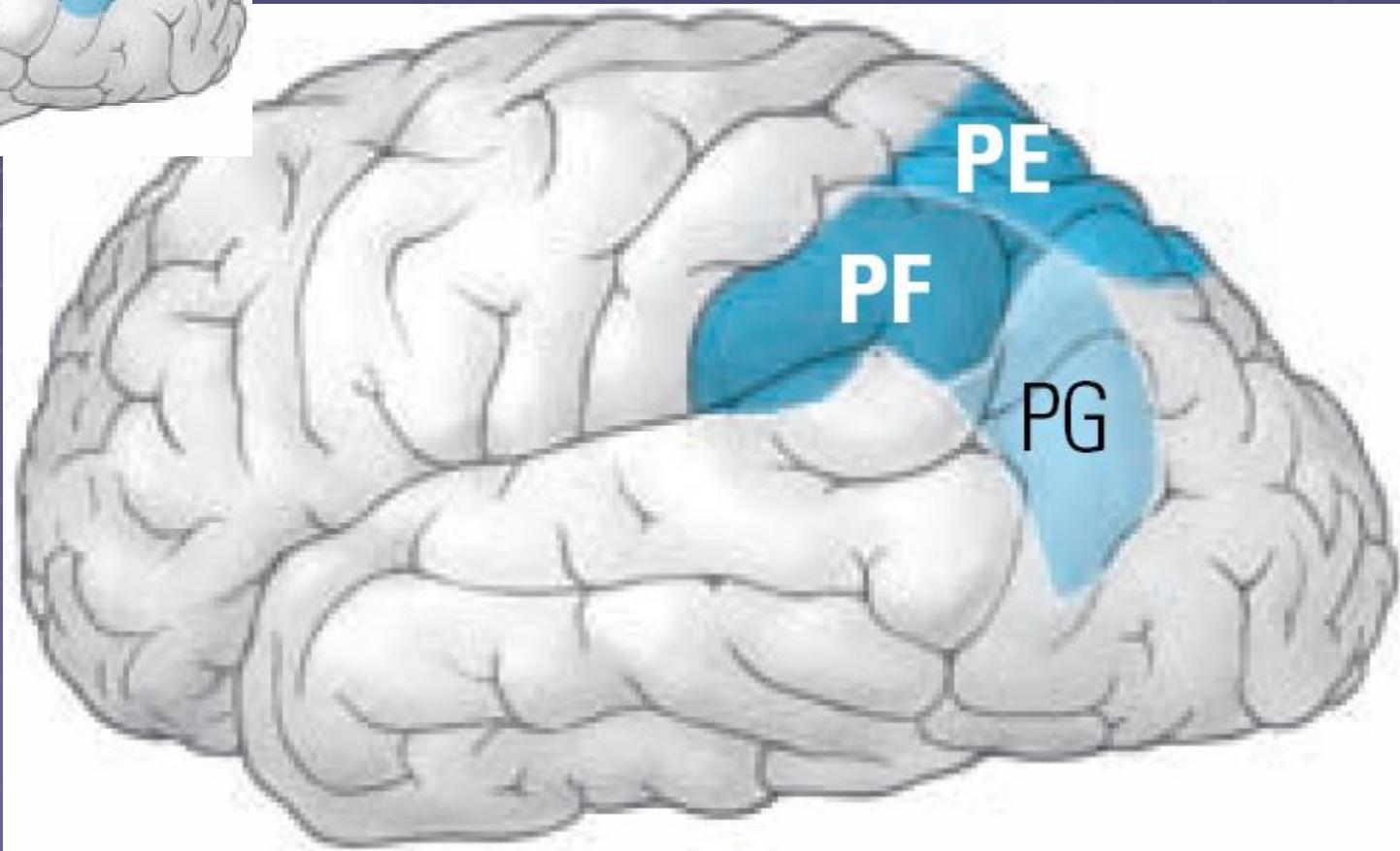
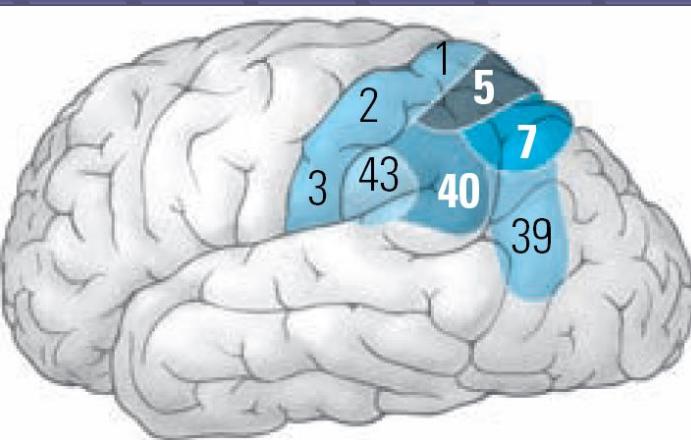


(B)



# Left parietal

# Parietal lobe



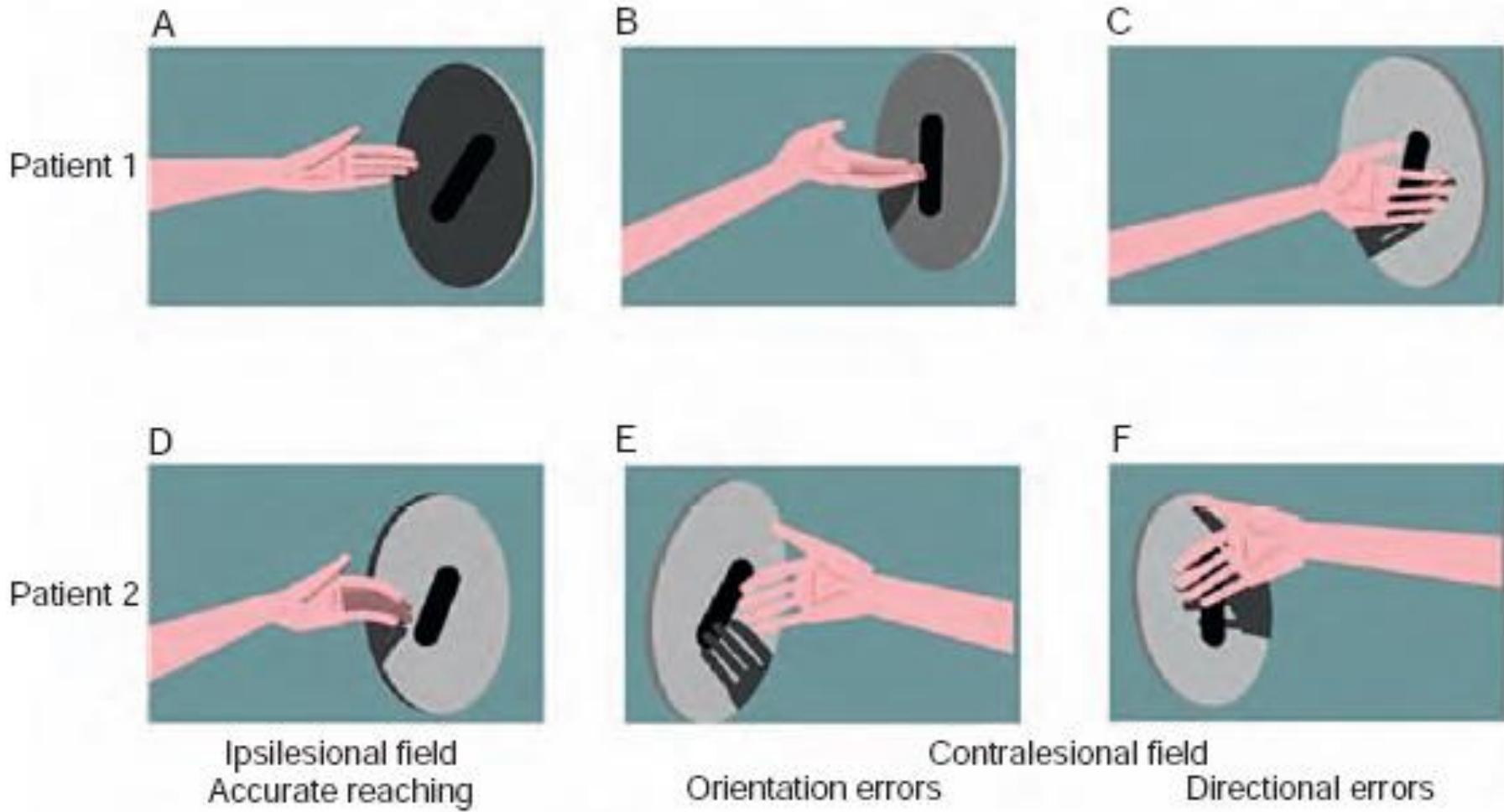
- Acalculia
- Language
- Agraphia
- Apraxia

# Parietal Damage

- **SIMULTANAGNOSIA** : Inability to interpret the totality of a picture scene (can identify individual portions of the whole picture)



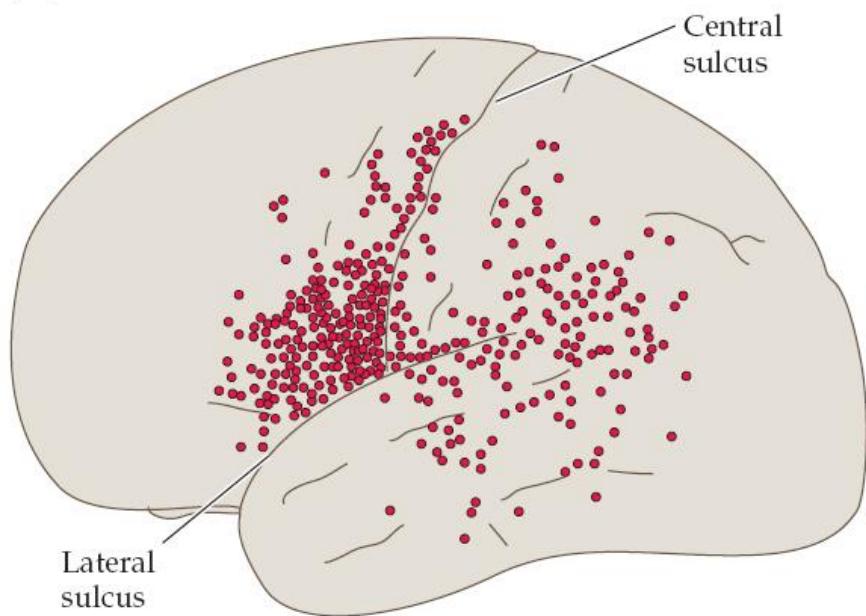
# Optic Ataxia



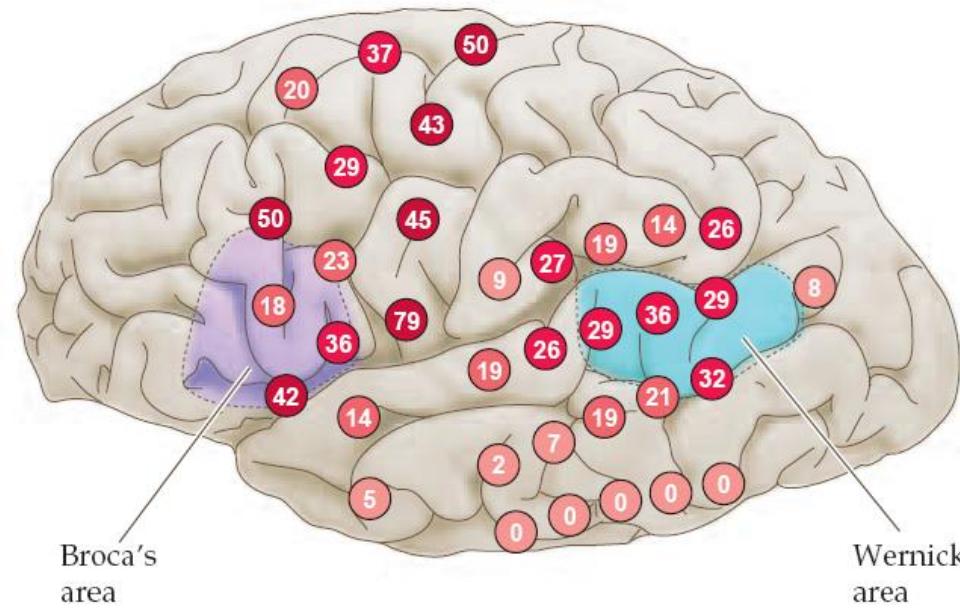
**language**

# language

(A)

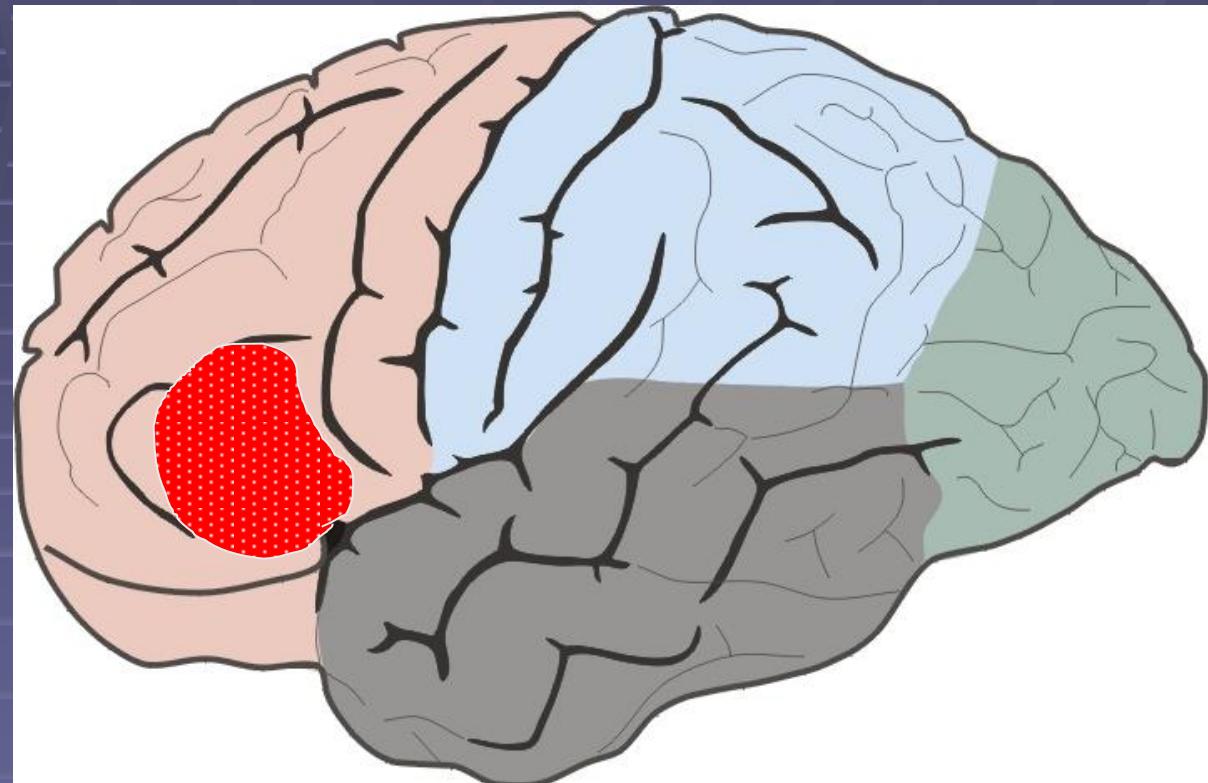


(B)



# Broca Aphasia (Expressive aphasia)

Left  
hemisphere

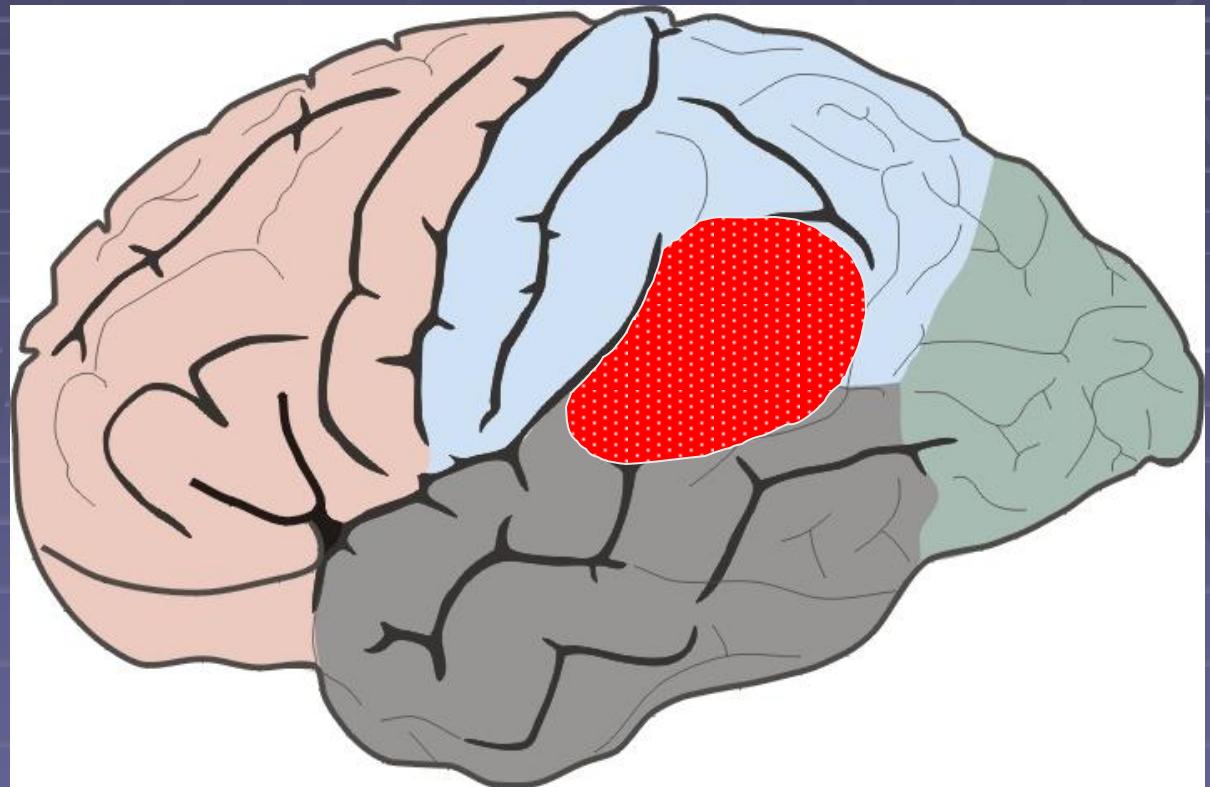


Broca's aphasia - Sarah Scott - teenage stroke

<http://www.youtube.com/watch?v=1aplTvEQ6ew>

# Wernicke Aphasia (Receptive aphasia)

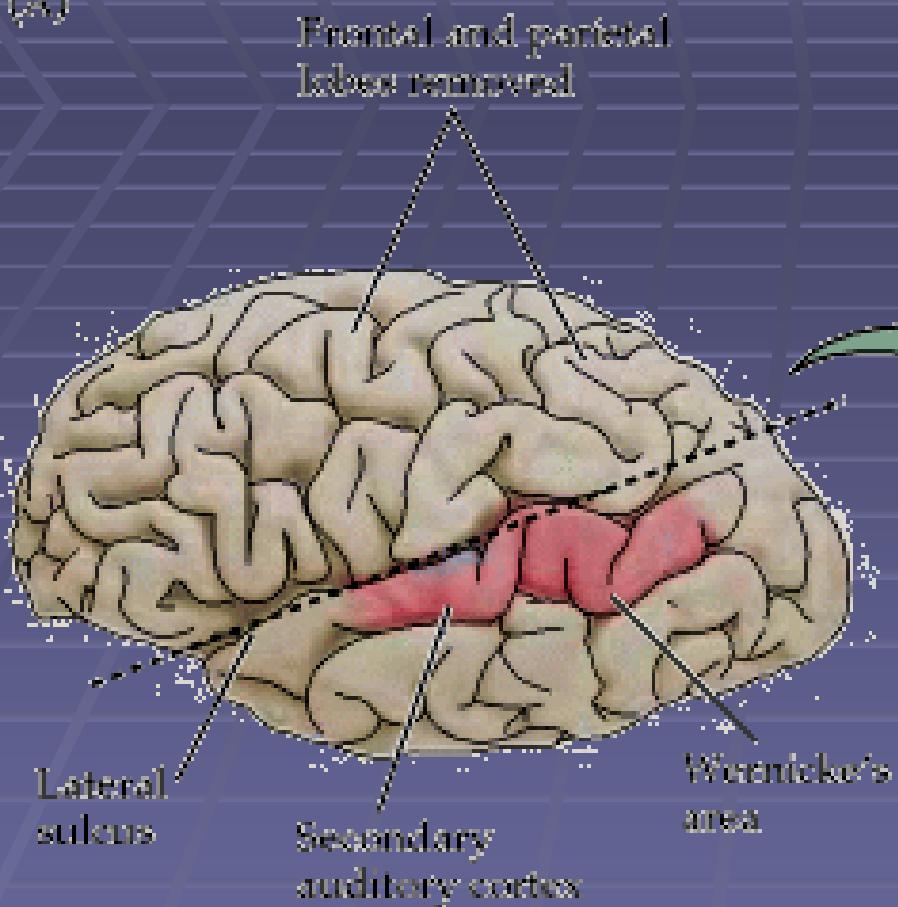
Left  
hemisphere



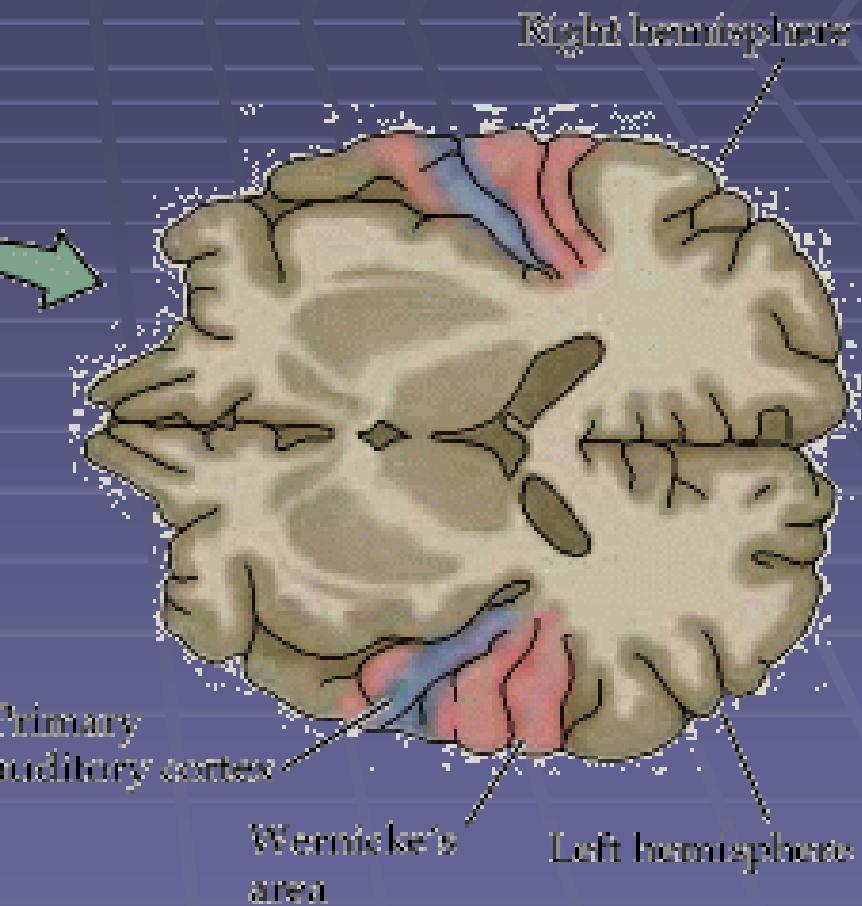
**Wernicke's Aphasia Interview with Amelia Carter**

[http://www.youtube.com/watch?v=UtadyCc\\_ybo](http://www.youtube.com/watch?v=UtadyCc_ybo)

(A)



(B)



**(right hemisphere)**

# **Prosody of speech**

**(right hemisphere)**

