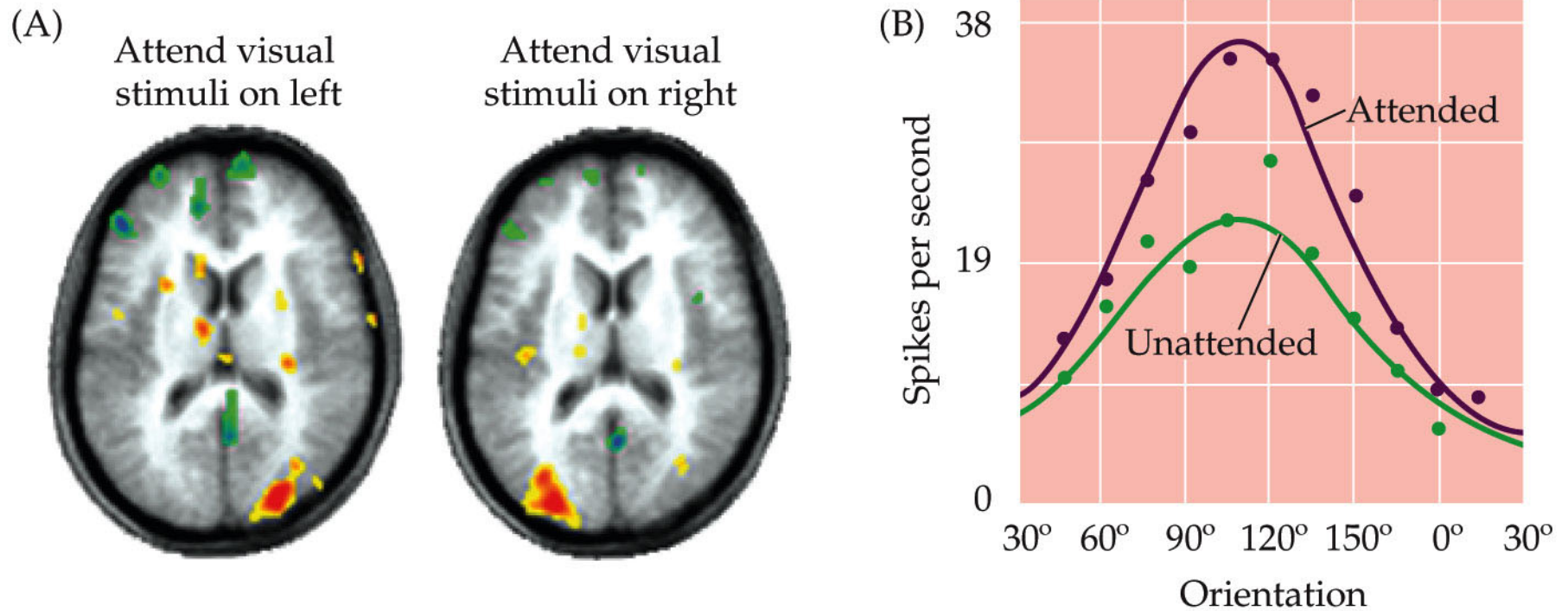


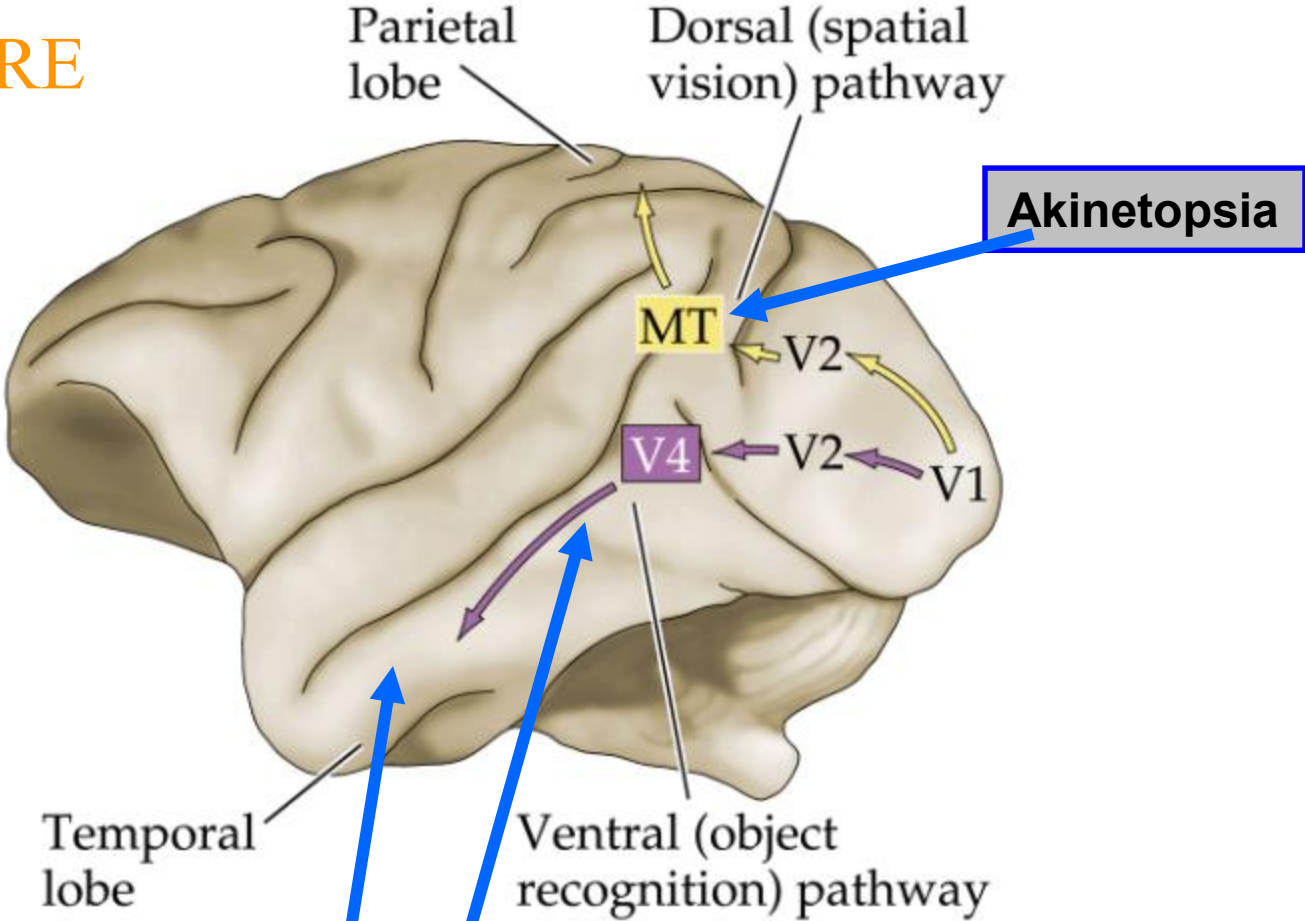
# Attention influences the activity of higher order association areas



An important emergent feature in association cortex is attention and attentional modulation of neuronal activity.

# Dorsal/Parietal vs Ventral/Temporal Streams and some clinical deficits

WHERE



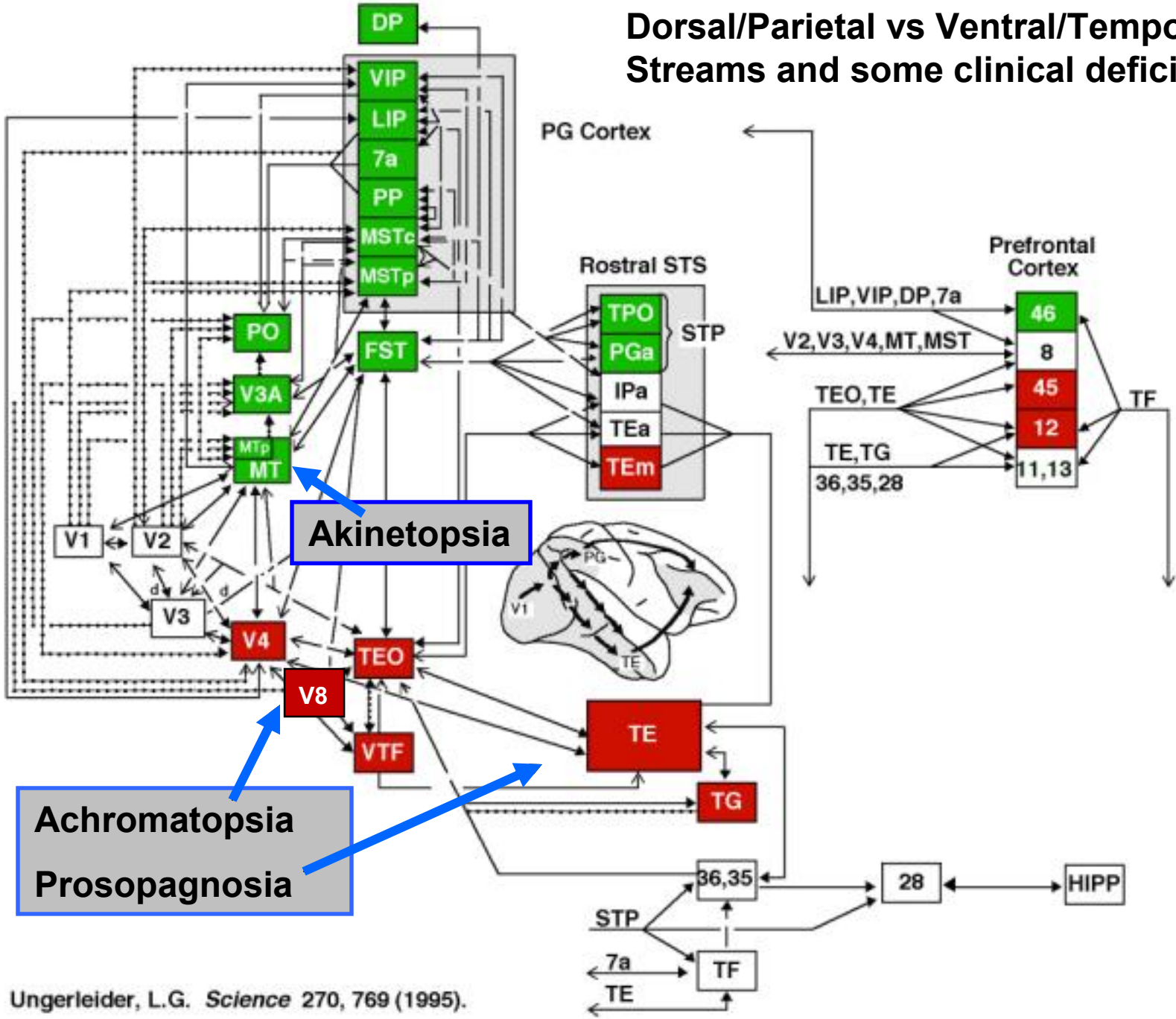
WHAT

Prosopagnosia

Achromatopsia

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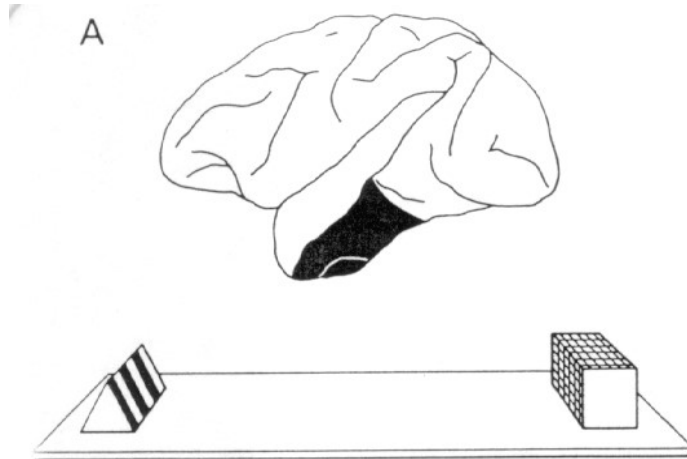
# Dorsal/Parietal vs Ventral/Temporal Streams and some clinical deficits



Ungerleider, L.G. *Science* 270, 769 (1995).

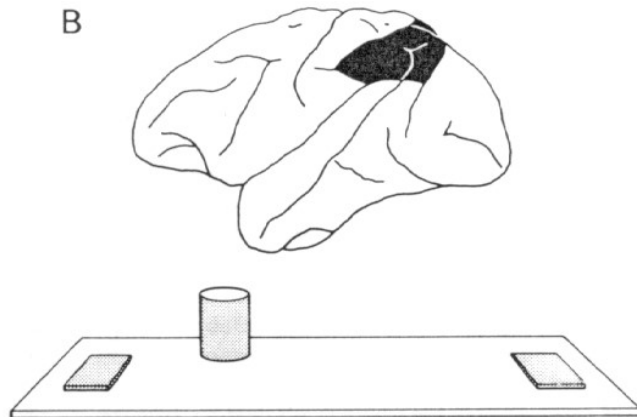
# What and Where Visual Pathways

## Object discrimination task



*Bilateral lesion of the temporal lobe leads to a behavioral deficit in a task that requires the discrimination of objects.*

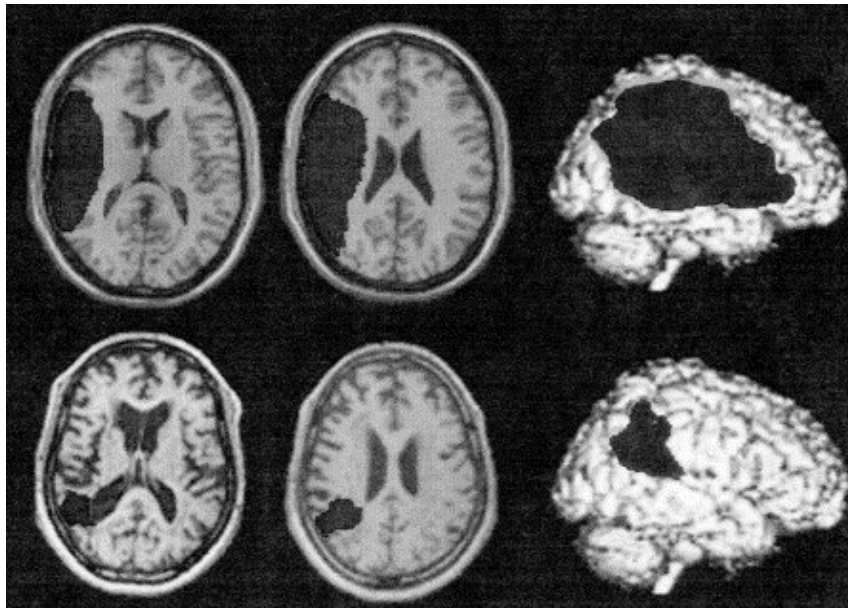
## Landmark discrimination task



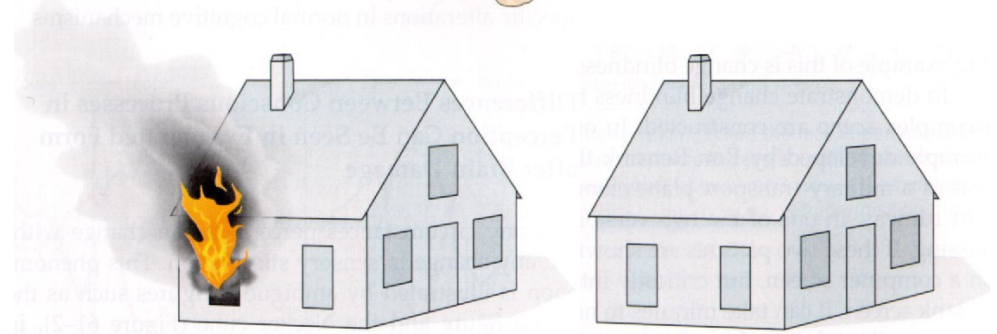
*Bilateral lesion of the parietal lobe leads to a behavioral deficit in a task that requires the discrimination of locations (landmarks).*

Mishkin and Ungerleider, 1983

# Parietal / Hemispatial / Hemiagnosia Neglect



Right posterior parietal cortex



Copying:



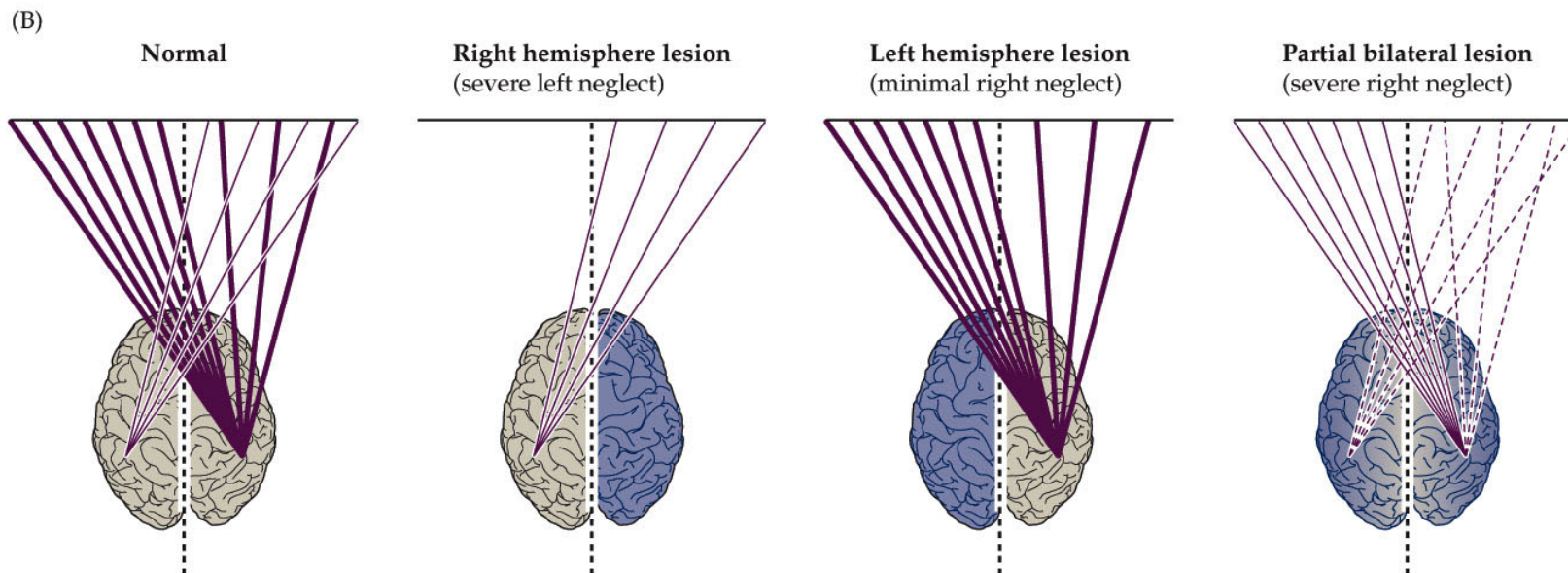
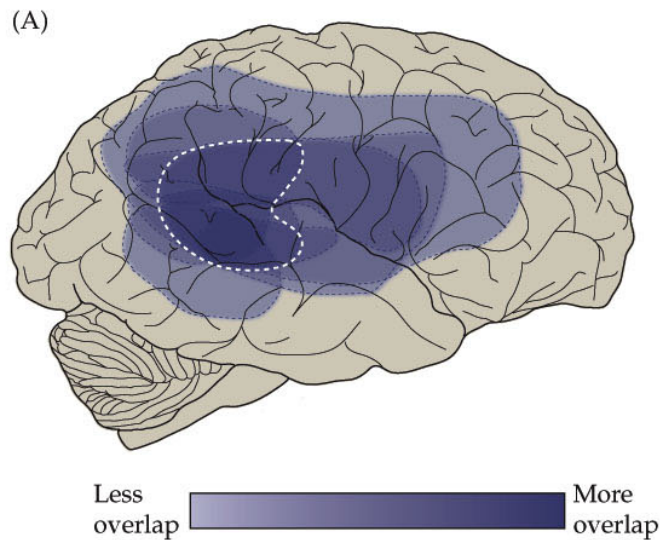
Spontaneous drawing:

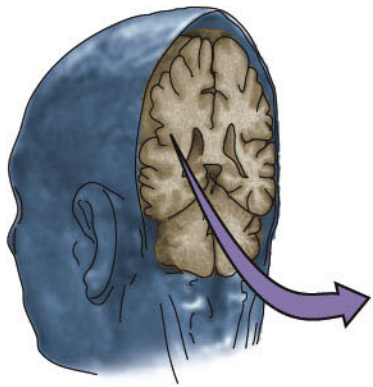


Recovery →

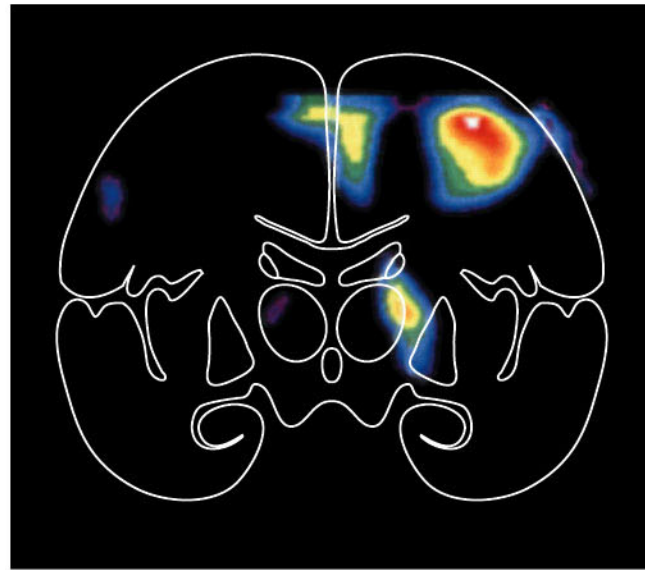
# Lateralization: Right Parietal Cortex controls spatial attention in both hemifields

Why left hemispacial neglect is far more common than right hemispacial neglect...





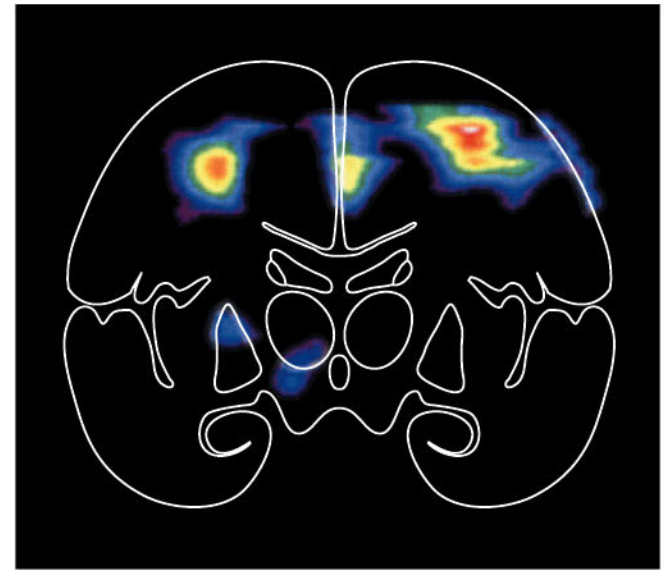
(A) Attending to the left visual field



L

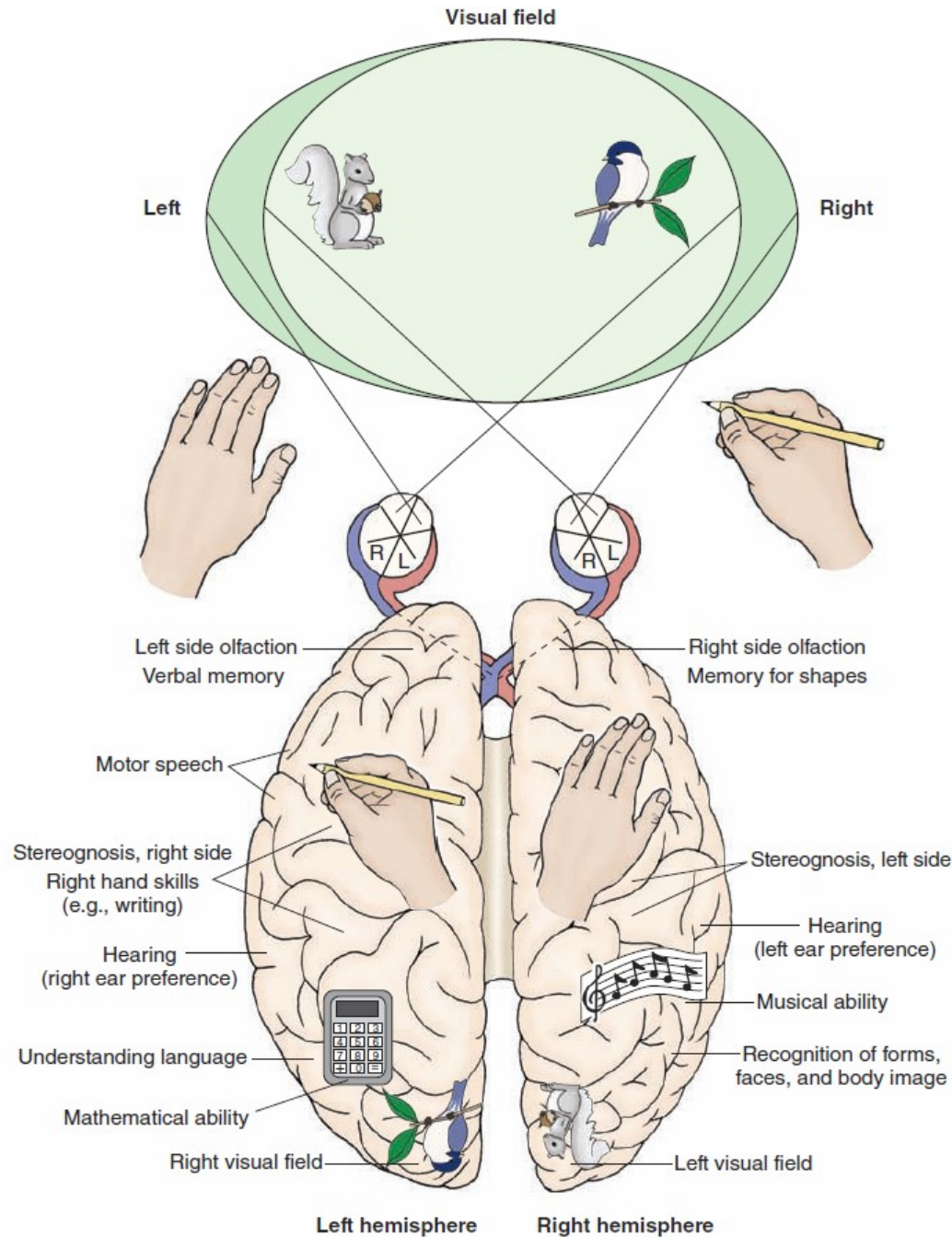
R

(B) Attending to the right visual field



L

R



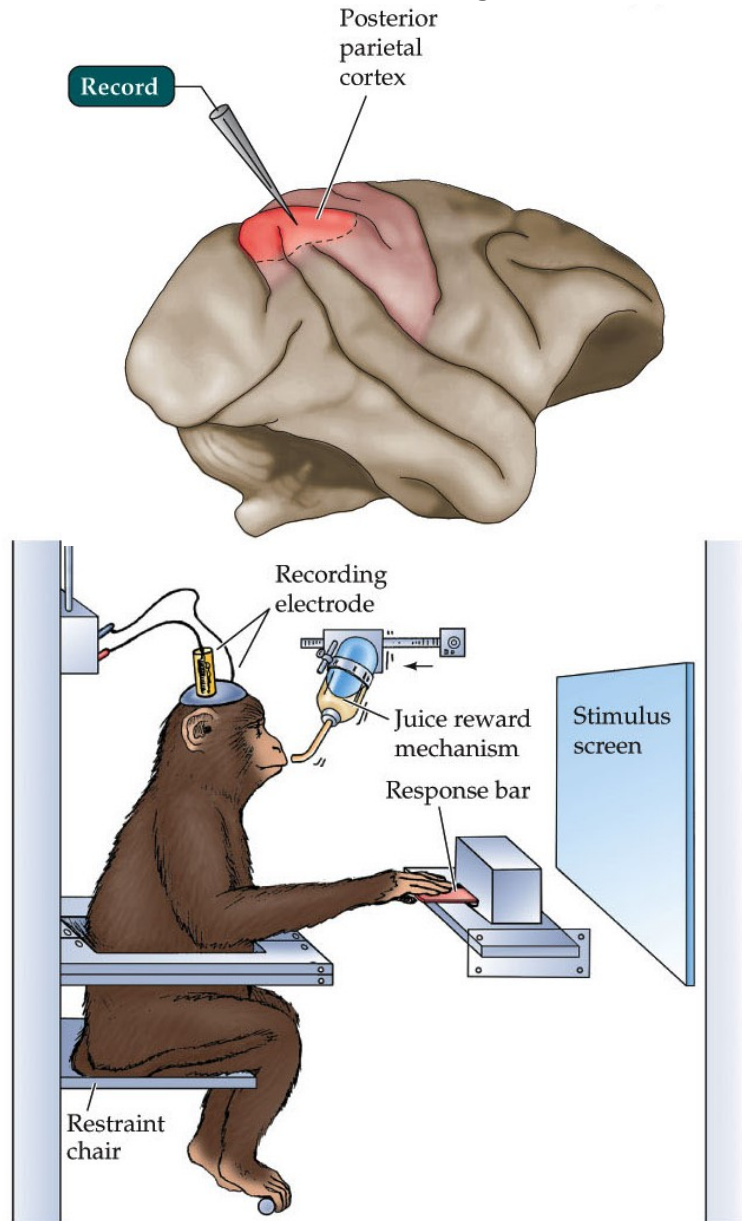
***The great pleasure and feeling in my right brain is more than my left brain can find the words to tell you.***

**Roger Sperry**





# Behaving primate experiments have revealed brain mechanisms that mediate behavior, particularly in association cortex



An important emergent feature in association cortex is attention and attentional modulation of neuronal activity.

