

Attention

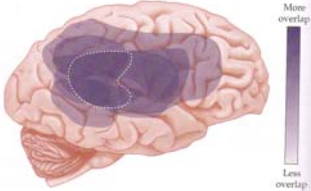
Attention

Parietal Lobe Lesion
3.5

Lesions resulting in neglect


Most common:
Inferior parietal lobe

But sometimes also:
Prefrontal cortex
Cingulate gyrus
Basal ganglia
Thalamus
Midbrain



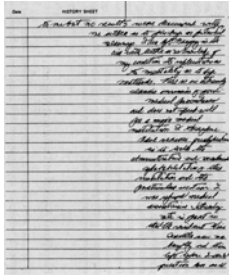

Attention

draw a clock read compound words

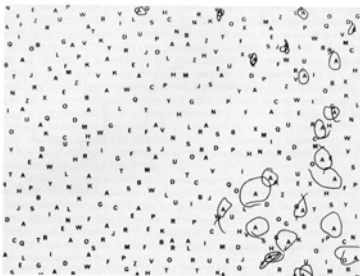


ice cream
football

MODEL PATIENT'S COPY



find all "A" letters



Anosagnosia

patients are unaware or deny their own deficits

Asked to clap: patient would move right hand only, claim to be clapping.

Asked to hold a tray of cocktail glasses: does so with right hand only, tray tumbles.

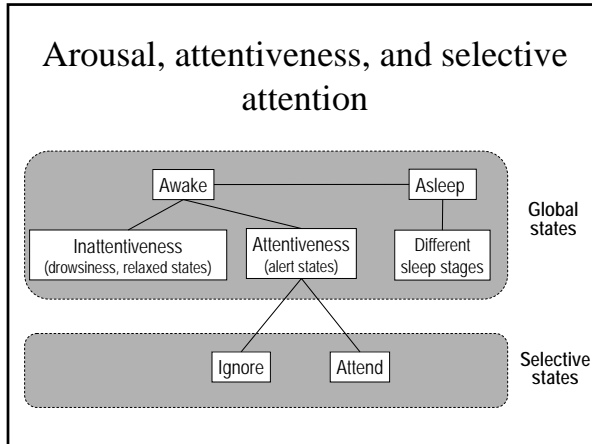
Disorders of attention: Neglect

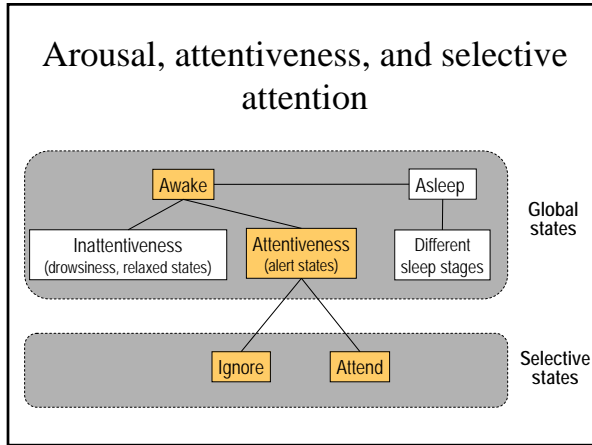


Recovery passes through 2 stages:


- 1. allesthesia**
- patients respond to stimuli on the neglected side, but treating them as if they were on the good side
- 2. extinction**
- when both sides are stimulated simultaneously, patients notice only the stimulation on the side ipsilateral to the lesion







Basic phenomena of attention
















limited capacity for processing
only a small amount of available info can be processed

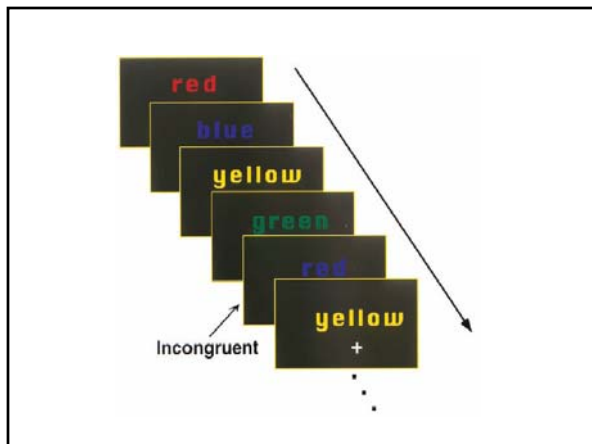
selectivity
the ability to filter out unwanted information

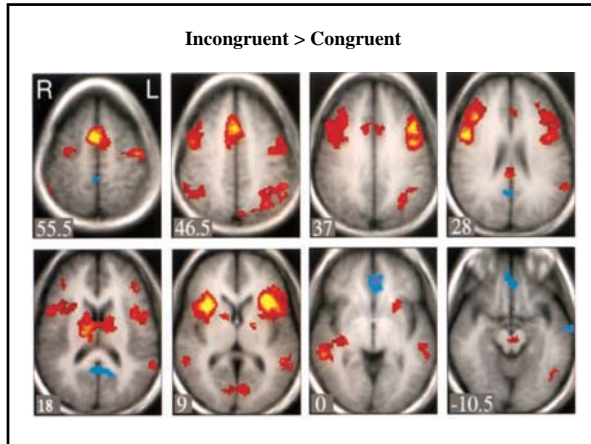
Attention



Stroop Interference (Stroop, 1935)

	BLUE	Word reading	
	GREEN		•fast
	YELLOW		•effortless
	RED	•uncontrollable	
	GREEN	Color naming	
	YELLOW		•slow
	BLUE		•effortful
	GREEN	•controlled	
	BLUE		
	YELLOW		
	GREEN		
	RED		
	BLUE		





Two ways to focus attention

- Bottom-up processes
 - reflexive, stimulus-driven mechanisms, automatic
- Top-down processes
 - voluntary; mentally focusing on an object

A general model of attention

Attention leads to elevated levels of activation in the corresponding sensory cortices

Sensory cortices can be biased by higher-level regions

Attention

