Lesions resulting in neglect

Most common:
Inferior parietal lobe

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

draw a clock
read compound words

ice cream
football

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

Arousal, attentiveness, and selective attention

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)

Word reading
- fast
- effortless
- uncontrollable

Color naming
- slow
- effortful
- controlled

Incongruent > Congruent

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
Attend to right or left target

Prepare to attend to right or left target (activation during cue)