Lesions resulting in neglect

Most common: 
*Inferior parietal lobe*

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

Attention

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Attention

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

**Awake**
- Inattentiveness (drowsiness, relaxed states)
- Attentiveness (alert states)
- Different sleep stages

**Asleep**
- Global states
- Selective states

**Ignore**
**Attend**

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
Stroop Interference (Stroop, 1935)

Word reading
- fast
- effortless
- uncontrollable

Color naming
- slow
- effortful
- controlled
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)