

For each of the cognitive processes we will discuss you should be able to provide evidence about:

- the brain systems that are important (between and within the hemispheres)
- functional subsystems within these cognitive processes that have been implicated by studies at several different levels of analysis
- how these functionally specialized systems develop

Different levels of analysis, types of evidence we will use to study the neural basis of cognition

1. Animal Studies
 - a. lesions
 - b. single neurons
 - c. behavior
 - d. effects of experience
2. Human Clinical patients (adults)
 - a. lesions/MRI
 - b. split brain surgery
 - c. stimulation
3. Normal Human Adults
 - a. behavior
 - b. ERPs
 - c. PET
 - d. MEG
 - e. magnetic stimulation
 - f. fMRI
 - g. T.M.S.
 - h. effects of experience
4. Human Development
 - a. lesions
 - b. behavior
 - c. ERPs
 - d. fMRI
 - e. effects of experience

Examples of types of evidence we will discuss for:

Sensory Development and Plasticity

1a, b, c, d; 3a, b, c, d, e, f, g, h; 4a, b, c, d

Perception and Object Recognition, Functional Organization of the Visual System

1a, b; 2a; 3a, b, c, f, g, h

Face Processing

1a, b; 2a, b; 3a, b, c, f, g; 4b, c

Attention

1a, b, c; 2a; 3a, b, c, d, f, g; 4b, c, d

Memory

1a, b, c; 2a; 3a, b, f; 4b

Language

2a, b, c; 3a, b, c, d, e, f, g; 4a, b, c, d, e