

9/16 and 9/18 Localization

<u>Left</u>		<u>Right</u>
High spatial frequency (edges)		Low spatial frequency
Local level of form (trees)		Global level form (forest)
Categorical relations		Coordinate relations
Focused attention		Alertness
Phonological loop		visuospatial sketchpad
Encoding		Retrieval (content not episode)
		- Tulving's hemispheric encoding-retrieval asymmetry model (HERA model)
Phonology		Prosody (multiple phonemes over time)
		- WADA test: which side of hemisphere has speech (95% on left side)
		- stuttering could be language ability in both hemispheres.
Literal meaning	Semantics	Non-literal meaning
		- garden path sentences (R hemisphere lights up)
Syntax	Language	Pragmatics
		- L brain damage: confused word order
Focused spread of activation		Diffuse spread of activation
		-Concepts
Approach related	Emotion	Withdrawal related
		- Davidson
Abstract/analytical	Reasoning	Concrete/contextual
		- Field dependence (Rod and Frame test)
Convergent	Problem solving	Divergent (alternate uses test/creativity)

Handedness

- more asymmetrical less communication between hemispheres
- Witelson/physiology: measured corpus callosum (post mortem)

Genetics

- mice bred for degree of pawedness not direction (R/L).
- Annette's R-shift model
 - RS++ 30%
 - R+ 50% balance/polymorphism /mixed handed
 - R- 20% (environmental influence)
- McKevor: sex-linked gene
- McManus: D= Dextral, C= Chance
 - DD 64%
 - DC 32%
 - CC 4%

Evolution

- R/L degree of handedness stable through 100,000 years
- 50/50 split

Measurement/definition

- edinburg handedness inventory
- J- Curve: most skewed (median 80)
- stroop task
- stroop facilitation (same/different)